



# DETAILED PROJECT REPORT

**For Grant of 'Deemed to be University' Status  
under Distinct Category (Existing Institution)**

Submitted to

**UNIVERSITY GRANTS COMMISSION (UGC)**  
Bahadur Shah Zafar Marg, New Delhi - 110002

Submitted by

**RAMACHANDRA**  
(Proposed Deemed to be University)  
NH-16 Bypass Road, Vatluru (V), Eluru - 534007  
Andhra Pradesh

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## EXECUTIVE SUMMARY



*“Education prepares minds not just for careers, but for leadership, responsibility and service to the nation.”*

This Detailed Project Report (DPR) outlines the establishment of **Ramachandra Deemed to be University** under the **Distinct Category (Existing Institution)** of UGC [Institutions Deemed to be Universities] Regulations, 2023, through the upgradation of Ramachandra College of Engineering into a multidisciplinary, research-driven institution aligned with **NEP-2020** and **Viksit Bharat 2047**.

### Vision of the proposed Ramachandra Deemed to be University



*To emerge as a nationally reputed and globally benchmarked multidisciplinary university, fostering academic excellence, research and innovation, ethical leadership and inclusive development, while serving as a regional anchor institution for sustainable societal transformation.*

### Mission of the proposed Ramachandra Deemed to be University

1. **To deliver NEP-aligned, multidisciplinary and flexible academic programmes** that foster critical thinking, creativity, lifelong learning and outcome-based education with academic rigour.
2. **To promote excellence in fundamental, applied and translational research** through Centres of Excellence, research clusters and a vibrant innovation ecosystem addressing societal challenges.
3. **To integrate skill development, experiential learning and industry engagement** across all programmes to enhance employability, entrepreneurship and self-reliance.
4. **To leverage institutional autonomy and academic flexibility** for curriculum innovation, interdisciplinary learning and multiple entry–exit pathways through the Academic Bank of Credits (ABC).
5. **To ensure inclusive, equitable and accessible education** with special focus on rural, semi-urban and first-generation learners through scholarships, mentoring and outreach initiatives.
6. **To embed Indian Knowledge Systems (IKS), ethics and constitutional values** within teaching, research and community practices while preserving cultural heritage.
7. **To function as a socially responsible, community-centric university** contributing to local and regional development through extension, outreach and applied research.

8. **To strengthen global engagement and benchmarking** through national and international collaborations, joint research, faculty exchange and adoption of global best practices.

### **Rationale for Seeking Deemed-to-be University Status**

The establishment of Ramachandra-DTBU arises from the compelling need to:

The rationale for seeking Distinct Category status is based on **differentiation, not replication**. R-DTBU seeks to emerge as a **purpose-driven university** with distinctive characteristics:

- **Regional Anchor University Model**
  - First major **Multidisciplinary University** in the Eluru–West Godavari region
  - Focus on reducing educational disparities between urban and rural learners
  - A major contributor to empower skilled professionals to bridge the gap between industry and academia
- **Multidisciplinary Expansion with Engineering as Core**
  - Leveraging engineering strength to integrate sciences, computing, management, liberal arts and IKS
  - Creation of interdisciplinary programmes responding to **emerging national and global needs**
- **NEP 2020 as Institutional Architecture**
  - Full operationalisation of NEP reforms: ABC, multiple entry–exit, flexible curricula
  - Student-centric, choice-based academic pathways
- **Research, Innovation and Societal Impact**
  - Emphasis on **applied, translational and emerging areas of research**
  - Development of Centres of Excellence aligned with regional and national priorities
- **Inclusive and Equitable Access**
  - Special focus on first-generation learners, rural students and economically weaker sections
  - Scholarships, outreach programmes and community engagement initiatives

These elements position R-DTBU as a **distinct and differentiated higher education institution**, consistent with Clause 7 expectations.

## Proposed Schools Under Ramachandra-DTBU

1. School of Engineering and Technology
2. School of Computing
3. School of Applied Sciences
4. School of Management
5. School of Liberal Arts
6. School of Indian Knowledge Systems
7. School of Architecture

The proposal is structured around a **15-Year Strategic Vision Plan (2027–2042)** supported by a **5-Year Rolling Implementation Plan**, with defined outputs, measurable indicators and phased milestones.

### 15-Year Strategic Vision

By Year 15, the University aims to achieve:

- **Student Strength:** Growth from 4285 students (base year) to 10,000+ students
- **Faculty Strength:** Expansion from 236 faculty to 660+ **qualified faculty members**
- **Faculty–Student Ratio:** Maintained at **1:15**
- **Schools & Departments:** 7 Multidisciplinary Schools with 25+ Departments
- **Research Output:**
  - 2,800+ SCI/Scopus/WoS indexed publications cumulatively
  - 20 Cr+ funded research projects
  - 1000+ patents filed; 50+ patents granted
- **Ph.D. Scholars:** 500+ doctoral enrolments cumulatively
- **Incubation & Start-ups:** 40+ incubated start-ups; 20+ commercially viable ventures
- **Accreditation & Ranking:** NAAC A++ target or Level 4/5 in MBGL; NBA accreditation for 100% eligible programmes; NIRF Top 200

The 15-year development is divided into:

#### Phase I (Years 1–5): Foundation & Consolidation

- Student strength: 6,500+
- Faculty: 430+
- 20+ new UG/PG/Research programmes introduced
- 6 Cr+ funded projects; 500+ patent filings

#### Phase II (Years 6–10): Expansion & Research Intensification

- Student strength: 8,000+
- Faculty: 530+
- Full-fledged Ph.D. programmes across disciplines
- 10 Cr+ funded projects; 800+ patents filed
- Operational incubation centre and industry research clusters

### Phase III (Years 11–15): Global Positioning

- Student strength: 10,000+
- Faculty: 660+
- International collaborations with 20+ global institutions
- Research citations growth and global ranking participation

### 5-Year Rolling Implementation Plan (Years 1–5)

#### Academic Plan

- Launch of 20+ NEP-aligned multidisciplinary programmes in emerging areas (AI, Robotics, Sustainable Engineering, Data Science, etc.).
- Implementation of Academic Bank of Credits (ABC), OBE framework and digital LMS across 100% programmes.
- **Output:** 2,300+ annual new enrolment; 90% progression rate
- **Outcome:** Improved employability (>80% placement rate)

#### Faculty Recruitment Plan

- Recruitment of 180-200 additional qualified faculty within 5 years, with 60% holding Ph.D. qualifications by Year 5.
- Annual Faculty Development Programmes (minimum 4 per year).
- **Output:** 1:15 ratio maintained
- **Outcome:** Enhanced academic and research quality

#### Research Plan

- Establishment of 6 Centres of Excellence.
- Target: 1500+ indexed publications and ₹6 Crores cumulative research funding within 5 years.
- **Output:** 500 patent filings (cumulative)
- **Outcome:** Recognized regional research hub

#### Networking Plan

- Execution of 50+ MoUs with industries and 10+ national/international universities.
- Structured internship system covering 100% eligible students.
- **Outcome:** Strong industry integration and global exposure

#### Infrastructure Development Plan

- Construction of additional 2–3 academic blocks, advanced research labs, smart classrooms (100%), digital library expansion, hostels expansion to 2,000+ capacity.
- ERP and e-Governance fully deployed.

## Finance Plan

- Projected capital investment (first 5 years): ₹25–30 Crores.
- Annual revenue growth projected at 12–15% per annum.
- Operational sustainability achieved from first year of University operations

## Administrative & Governance Plan

- Constitution of statutory bodies (Executive Council, Academic Council, Board of Studies, Finance Committee).
- University-level IQAC operational from Year 1.
- Policy framework adoption within first 6 months.

Through clearly defined milestones, quantifiable growth indicators and phased investment, Ramachandra Deemed to be University is positioned to evolve into a financially sustainable, research-intensive, multidisciplinary institution contributing significantly to national development and global knowledge ecosystems.



*“Universities serve as the intellectual backbone of a nation—advancing knowledge, innovation and leadership.”*

## **LIST OF ABBREVIATION**

<b>Abbreviation</b>	<b>Full Form</b>
AAA	Academic & Administrative Audit
AACSB	Association to Advance Collegiate Schools of Business
ABC	Academic Bank of Credits
ABET	Accreditation Board for Engineering and Technology
AC	Admission Committee
AC	Academic Council
ADAS	Advanced Driver Assistance Systems
AEC	Alumni Engagement Committee
AI	Artificial Intelligence
AIC	Atal Incubation Centres
AICTE	All India Council for Technical Education
AICTE IDEA	AICTE Idea Development, Evaluation & Application Scheme
AIML	Artificial Intelligence and Machine Learning
AISHE	All India Survey on Higher Education
ATL	Atal Tinkering Labs
AMC	Annual Maintenance Contracts
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
ANRF	Anusandhan National Research Foundation
API	Academic Performance Indicator
AP	Andhra Pradesh
ASIC	Application-Specific Integrated Circuit
AQAR	Annual Quality Assurance Report
AR	Augmented Reality
ARC	Anti-Ragging Cell
ARIIA	Atal Ranking of Institutions on Innovation Achievements
AUTOSAR	Automotive Open System Architecture
AYUSH	Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy
B.A	Bachelor of Arts
B.Arch	Bachelor of Architecture
B.A (Hons)	Bachelor of Arts (Honours)
B.Com	Bachelor of Commerce
B.Sc	Bachelor of Science
B.Tech	Bachelor of Technology
BBA	Bachelor of Business Administration
BBA (Hons)	Bachelor of Business Administration (Honours)
BEE	Bureau of Energy Efficiency
BIM	Building Information Modelling
BoM	Board of Management

BoS	Board of Studies
B.Voc	Bachelor of Vocation
CAD	Computer-Aided Design
CAG	Comptroller and Auditor General of India
CAM	Computer-Aided Manufacturing
CAPEX	Capital Expenditure
CASD	Centre for Academic Staff Development
CBCS	Choice-Based Credit System
CCE	Continuous and Comprehensive Evaluation
CC	Cultural Committee
CCTV	Closed-Circuit Television
CDC	Curriculum Development Committee
CEOC	Community Engagement & Outreach Committee
CERT-In	Computer Emergency Response Team – India
CIA	Continuous Improvement Actions
CO	Course Outcome
CoE	Centre of Excellence
CoE (Exams)	Controller of Examinations
CPD	Continuing Professional Development
CQI	Continuous Quality Improvement
CSR	Corporate Social Responsibility
CSE	Computer Science and Engineering
CUP	Centre for University Publication
DAC	Department Advisory Committee
DASSC	Differently-Abled Students Support Cell
DBT	Department of Biotechnology
DELNET	Developing Library Network
DPEPP	Defence Production & Export Promotion Policy
DRDO	Defence Research and Development Organisation
DSIR	Department of Scientific and Industrial Research
DST	Department of Science and Technology
DTBU	Deemed to be University
ECBC	Energy Conservation Building Code
ECE	Electronics and Communication Engineering
EDC	Entrepreneurship Development Cell
EDC	Examination & Disciplinary Committee
EDII	Entrepreneurship Development Institute of India
EEE	Electrical and Electronics Engineering
EC	Executive Council
EMS	Electronics manufacturing services
EOC	Equal Opportunity Cell

EQUIS	EFMD Quality Improvement System
ERC	Examination Reformation Committee
ERP	Enterprise Resource Planning
ESC	Environment & Sustainability Committee
ESG	Environmental, Social and Governance
EV	Electric Vehicle
EWS	Economically Weaker Sections
FDP	Faculty Development Programme
FFC	Fee Fixation Committee
FINTECH	Financial Technology
FIP	Faculty Induction Programmes
FO	Finance Officer
FPGA	Field-Programmable Gate Array
GBPS	Gigabits per second
GER	Gross Enrolment Ratio
GO	Graduation Outcomes
GoI	Government of India
GPU	Graphics Processing Unit
GRC	Grievance Redressal Cell
GSC	Gender Sanitization Cell
GSC	Games & Sports Committee
HoD	Head of the Department
HPC	High-Performance Computing
HQ	Headquarters
HR	Human Resources
HRIIC	HR Innovation and Incubation Centre
HRRIP	Human Resource & Rural Innovation Programme
HVAC	Heating, Ventilation and Air Conditioning
ICAR	Indian Council of Agricultural Research
ICC	Internal Complaints Committee
ICPC	Internship, Career Counselling & Placement Cell
ICSSR	Indian Council of Social Science Research
ICT	Information and Communication Technology
ICTEC	ICT & E-Governance Committee
IDE	Integrated Development Environments
IEC	Institutional Ethics Committee
IEDC	Innovation & Entrepreneurship Development Cell
IEEE	Institute of Electrical and Electronics Engineers
IIC	Institution's Innovation Council
IIPC	Industry Institute Partnership Cell
IIQA	Institutional Information for Quality Assessment

IKS	Indian Knowledge Systems
IoT	Internet of Things
IP	Intellectual Property
IP	Internet Protocol
IPR	Intellectual Property Rights
IQAC	Internal Quality Assurance Cell
ISO	International Organization for Standardization
ISBN	International Standard Book Number
ISM	India Semiconductor Mission
ISSN	International Standard Serial Number
ISWDP	India Semiconductor Workforce Development Program
IT	Information Technology
JNTUK	Jawaharlal Nehru Technological University, Kakinada
JRF	Junior Research Fellowship
KNIMBUS	KNIMBUS Digital Library Platform
KPI	Key Performance Indicator
KVA	Kilovolt-Ampere
LAC	Library Advisory Committee
LCD	Liquid Crystal Display
LCS	Lecture Capture Systems
LED	Light Emitting Diode
LLM	Large Language Model
LLMs	Large Language Models
LMS	Learning Management System
M.A	Master of Arts
M.Arch	Master of Architecture
MBBS	Bachelor of Medicine and Bachelor of Surgery
MBPS	Megabits per second
MC	Minority Cell
M.Sc	Master of Science
M.Tech	Master of Technology
MBA	Master of Business Administration
MBGL	Maturity-Based Graded Level
MeitY	Ministry of Electronics and Information Technology
MFA	Multi-factor authentication
MIC	Ministry of Education's Innovation Cell
MIS	Management Information System
ML	Machine Learning
MODROBS	Modernization and Removal of Obsolescence
MoE	Ministry of Education
MoU	Memorandum of Understanding

MOOCs	Massive Open Online Courses
MSME	Micro, Small and Medium Enterprises
MSME-DI	Micro, Small and Medium Enterprises – Development Institute
NAAC	National Assessment and Accreditation Council
NAPCC	National Action Plan on Climate Change
NAS	Network Attached Storage
NBA	National Board of Accreditation
NBC	National Building Code
NBFC	Non-Banking Financial Company
NCC	National Cadet Corps
NCrF	National Credit Framework
NDC	Nationally Determined Contributions
NDL	National Digital Library
NEP	National Education Policy
NEP-IC	NEP Implementation Cell
NHEQF	National Higher Education Qualifications Framework
NIRF	National Institutional Ranking Framework
NM-ICPS	National Mission on Interdisciplinary Cyber-Physical Systems
NMC	National Medical Commission
NGO	Non-Governmental Organization
NKN	National Knowledge Network
NM-ICPS	National Mission on Interdisciplinary Cyber-Physical Systems
NMHP	National Mental Health Programme
NOC	No Objection Certificate
NPE	National Policy on Electronics
NPTEL	National Programme on Technology Enhanced Learning
NSDC	National Skill Development Corporation
NSQF	National Skills Qualification Framework
NSS	National Service Scheme
NSTEDB	National Science & Technology Entrepreneurship Development Board
OBC	Other Backward Classes
OBE	Outcome-Based Education
OEMs	Original Equipment Manufacturers
OFC	Optical Fibre Cable
OI	Outreach & Inclusivity
OPEX	Operational Expenditure
OS	Operating System
PAC	Program Assessment Committee
PAN	Permanent Account Number
PARAM	Parallel Machine
PC	Purchase Committee

PCB	Printed Circuit Board
PDF	Post-Doctoral Fellowship
PEO	Program Educational Objective
PG	Postgraduate
Ph.D	Doctor of Philosophy
PLC	Programmable Logic Controller
PLI	Production Linked Incentive
PMMSY	Pradhan Mantri Matsya Sampada Yojana
PO	Program Outcome
PoSH	Prevention of Sexual Harassment
PR	Perception (NIRF Parameter)
Pro-VC	Pro Vice-Chancellor
PSO	Program Specific Outcome
PwD	Persons with Disabilities
QS	Quacquarelli Symonds
RAC	Research Advisory Committee
RAU	Regulatory Affairs Unit
RBI	Reserve Bank of India
R&D	Research and Development
RAF	Revised Accreditation Framework
RCC	Regulatory and Compliance Cell
RCE	Ramachandra College of Engineering
RBI	Reserve Bank of India
RDC	Research & Development Cell
R-DTBU	Ramachandra Deemed to be University
RP	Research & Professional Practice
RU-CET	Ramachandra University Common Entrance Test
SAN	Storage Area Network
SAR	Self-Assessment Report
SC	Scheduled Caste
SCADA	Supervisory Control and Data Acquisition
SCI	Science Citation Index
SDG	Sustainable Development Goal
SDG-IC	SDG Implementation Cell
SDN	Software-Defined Networking
SEZ	Special Economic Zone
SFC	Scholarship and Financial-Aid Committee
SIRO	Scientific and Industrial Research Organization
SoC	System on Chip
SOP	Standard Operating Procedure
SQAC	Students' Quality Assurance Cell

SRF	Senior Research Fellowship
SSR	Self Study Report
ST	Scheduled Tribe
STEM	Science, Technology, Engineering and Mathematics
SWAYAM	Study Webs of Active–Learning for Young Aspiring Minds
SWC	Student Welfare Committee
SWOC	Strengths, Weaknesses, Opportunities and Challenges
TBI	Technology Business Incubator
THE	Times Higher Education Ranking
TLE	Teaching–Learning–Evaluation
TLR	Teaching, Learning & Resources
ToT	Technology Transfer
TTO	Technology Transfer Office
UG	Undergraduate
UGC	University Grants Commission
UIIC	University Innovation and Incubation Centre
UNDP	United Nations Development Programme
UPI	Unified Payments Interface
UPS	Uninterruptible Power Supply
URF	University Research Fellowship
VBSA	Viksit Bharat Shiksha Adhishthan
VC	Vice-Chancellor
VLSI	Very Large-Scale Integration
VR	Virtual Reality
Wi-Fi	Wireless Fidelity
WEC	Women’s Empowerment Cell
WoS	Web of Science
XR	Extended Reality

## PREFACE



*“Education is the engine that transforms a nation’s knowledge into innovation and its aspirations into reality.”*

Higher education in India is undergoing a transformative phase driven by the vision of **National Education Policy (NEP) 2020**, the aspirations of **Viksit Bharat 2047** and the need to create globally competitive yet socially responsive institutions. The evolving knowledge economy demands universities that are multidisciplinary, research-driven, innovation-oriented, digitally empowered and deeply rooted in Indian values. It is in this dynamic national context that the proposal for **Ramachandra Deemed to be University** has been envisioned.

Ramachandra College of Engineering has, over the years, established itself as a centre of academic credibility, technical education and regional impact. Building upon this strong foundation, the sponsoring body now proposes the establishment of **Ramachandra Deemed to be University (DTBU)** under the UGC [Institutions Deemed to be Universities] Regulations, 2023, with a clear commitment to academic excellence, research intensity, governance transparency and societal transformation.

The transition from a single-discipline technical institution to a multidisciplinary university is not merely structural—it represents a paradigm shift. The proposed University aims to integrate Engineering and Technology, Computing, Applied Sciences, Management, Liberal Arts, Indian Knowledge Systems and Architecture within a unified ecosystem that promotes cross-disciplinary learning, innovation and research collaboration. This transformation aligns fully with NEP-2020’s emphasis on holistic and flexible education, multiple entry and exit pathways, Academic Bank of Credits (ABC), Outcome-Based Education (OBE) and global academic benchmarking.

The vision of Ramachandra Deemed to be University is anchored in five foundational pillars:

### 1. Academic Excellence with Flexibility

The University will offer NEP-aligned undergraduate, postgraduate, integrated and doctoral programmes with multidisciplinary curricula, industry-integrated learning, experiential pedagogy and digital augmentation. Academic autonomy will be leveraged to design forward-looking programmes in emerging domains such as Artificial Intelligence, Quantum Technologies, Cyber-Physical Systems, Sustainable Engineering, Robotics and Smart Infrastructure.

### 2. Research, Innovation and Knowledge Creation

The institution will foster a vibrant research ecosystem through Centres of Excellence, funded research projects, patent generation, incubation and start-up support and industry collaboration. A phased research intensification plan has been incorporated into this DPR to position the University as a regional innovation hub contributing to national missions and global challenges.

### 3. Skill Development and Employability

With strong industry linkages, internship frameworks, apprenticeship models and sector-specific skill integration, the University aims to produce graduates who are not merely degree-holders but competent professionals, innovators and entrepreneurs.

### 4. Inclusive and Value-Based Education

Ramachandra Deemed to be University is committed to expanding access to quality higher education for rural, semi-urban and first-generation learners. Scholarships, mentoring systems, student support services and community outreach programmes form integral components of this commitment. Ethical values, constitutional principles and Indian Knowledge Systems will be integrated across curricula to foster socially responsible citizenship.

### 5. Governance, Transparency and Quality Assurance

A robust governance structure aligned with UGC norms has been proposed, ensuring academic integrity, financial sustainability and participative decision-making. Internal Quality Assurance mechanisms, benchmarking through NIRF participation and pursuit of NAAC/NBA accreditations form part of the quality roadmap embedded within this DPR.

This Detailed Project Report presents a comprehensive blueprint for the establishment and phased development of Ramachandra Deemed to be University. It includes academic planning, infrastructure readiness, governance frameworks, financial sustainability models, faculty recruitment strategies, research roadmaps, industry engagement mechanisms, ICT integration, student development initiatives and long-term strategic milestones.

The University is envisioned not merely as a teaching institution but as a **knowledge ecosystem**—a space where teaching, research, innovation, entrepreneurship, culture and community engagement intersect meaningfully. It seeks to contribute to regional economic growth, technological advancement and societal well-being while maintaining global standards of quality and relevance.

The sponsoring body affirms its commitment to providing the necessary financial, infrastructural and administrative support required for the successful establishment and sustained growth of the proposed University. The land, physical infrastructure, academic facilities and human resources have been planned in accordance with regulatory requirements and future expansion trajectories. The DPR has been prepared after extensive consultation with academic leaders, industry experts, governance advisors and policy frameworks. It reflects a strategic, phased approach spanning short-term stabilization, medium-term expansion and long-term global positioning. The University's fifteen-year milestone framework clearly outlines the path from foundational consolidation to research intensification and global engagement.

Ramachandra Deemed to be University aspires to emerge as:

- A centre of academic innovation and multidisciplinary excellence
- A hub of research and translational knowledge
- A catalyst for regional development
- A nationally respected and globally connected institution

With determination and a clear strategic vision, this proposal is submitted for consideration and approval under the applicable UGC regulations.



*The establishment of Ramachandra Deemed to be University represents not just an institutional upgrade, but a commitment to shaping future generations of thinkers, leaders, innovators and nation-builders.*

## Chapter-1

# INTRODUCTION



*“The true purpose of higher education lies in advancing knowledge, fostering inquiry and preparing individuals to serve society with responsibility and integrity.”*

India is undergoing a paradigm shift in its higher education ecosystem, driven by national aspirations of becoming a **knowledge-led, innovation-driven and globally competitive economy**. Higher education institutions are no longer viewed merely as centres of instruction but as **engines of socio-economic transformation, research advancement, skill development and nation-building**. In this context, the Government of India, through the **Viksit Bharat Shiksha Adhishthan Bill 2025** and **National Education Policy (NEP) 2020**, has articulated a clear roadmap for restructuring higher education by promoting **large, multidisciplinary, autonomous and research-oriented Universities**.

The policy framework strongly encourages well-established institutions with proven academic credentials, governance capability and societal relevance to **transition from affiliated college structures to autonomous university systems**, including **Deemed to be Universities**. This transition is intended to overcome structural limitations of the affiliating system and enable institutions to design **flexible curricula, interdisciplinary programmes, research-intensive ecosystems and global collaborations**.

## 1. Introduction

**Ramachandra College of Engineering (RCE)**, located at **Eluru in Eluru District of Andhra Pradesh**, promoted by the **Ganta Sriram Educational Society**, has evolved steadily as a **credible provider of technical education** in the region. Over the years, the institution has developed **academic maturity, infrastructural capacity, faculty competence and governance stability**, positioning it well beyond the conventional role of an affiliated engineering college.

The proposal for establishing **Deemed to be University (DTBU)** is rooted in:

- The **institutional readiness** of Ramachandra College of Engineering
- The **regional necessity** for a Multidisciplinary University in Eluru and West Godavari region
- The **national requirement** under NEP 2020 for educational quality enhancement
- The **long-term vision** of the sponsoring society to contribute to inclusive and sustainable development

### 1.1 Background of Proposal

At present, higher education in the Eluru and West Godavari region is largely dependent on **affiliated colleges with limited academic autonomy**, resulting in constrained innovation, restricted research output and limited responsiveness to industry and societal needs. A significant number of students from the region migrate to metropolitan cities such as **Hyderabad, Bengaluru, Chennai and Visakhapatnam** in search of quality education, multidisciplinary exposure and

better employability prospects. This leads to **regional talent drain** and underutilisation of local student potential.

The establishment of Deemed to be University aims to **address this structural gap** by creating a **comprehensive university ecosystem** that offers:

- Multidisciplinary education across engineering, sciences, computing, management, liberal arts and Indian Knowledge Systems
- Research and innovation platforms aligned with national and regional priorities
- Skill-oriented and industry-supported programmes for enhanced employability
- Community-centric outreach addressing rural and semi-urban development needs

The background of this proposal is also anchored in the **transformational intent of the UGC Deemed to be University Regulations**, particularly under the **Distinct Category**, which recognises institutions that demonstrate **unique strengths, future orientation and potential for excellence**. Ramachandra College of Engineering, with its strong academic foundation and growth trajectory, aspires to evolve into such a **distinctive university** serving not only Andhra Pradesh but also the larger national and global academic community.

Thus, the proposal for Deemed to be University represents a **natural progression** in the institution's journey—from an Autonomous Engineering College to a **multidisciplinary and research-oriented university**, aligned with **Viksit Bharat Shiksha Adhishthan Bill 2025, NEP 2020, Vikshit Bharat @2047, SDG 2030, Atmanirbhar Bharat, National Development Goals and Regional aspirations**.

### 1.1.1 Evolution of Ramachandra College of Engineering

Ramachandra College of Engineering (RCE), Eluru, was established in 2008 by the **Ganta Sriram Educational Society** with the primary objective of **expanding access to quality technical education** for students from **Eluru, West Godavari and neighbouring regions of coastal Andhra Pradesh**. The institution was conceived at a time when the region faced a clear shortage of professionally managed engineering colleges capable of delivering **industry-relevant, value-based and outcome-oriented education**.

#### Foundation Phase – Establishing Academic Credibility

In its formative years, Ramachandra College of Engineering focused on:

- Creating a **strong academic foundation** through well-structured undergraduate engineering programmes
- Building **essential academic and physical infrastructure**, including classrooms, laboratories, workshops, library facilities and student support services
- Recruiting **qualified and committed faculty members** to ensure effective teaching-learning processes
- Ensuring **strict compliance with affiliating university and statutory body norms**

This phase was characterised by a **student-centric teaching approach**, discipline in academic delivery and steady institutional consolidation.

## Growth Phase – Consolidation and Capacity Building

As the institution matured, RCE entered a phase of **systematic growth and consolidation**, marked by:

- Expansion of academic programmes in response to **regional manpower needs**
- Continuous upgradation of laboratories and learning resources
- Introduction of **outcome-based education (OBE)** practices and structured assessment mechanisms
- Strengthening of **student support systems**, including mentoring, career guidance and placement facilitation
- Adoption of ICT tools to enhance teaching–learning effectiveness

During this period, the institution developed a **culture of academic planning and quality enhancement**, laying the groundwork for long-term institutional sustainability.

## Quality Enhancement Phase – Towards Autonomy Readiness

With increasing experience and institutional stability, Ramachandra College of Engineering progressively transitioned towards **quality-driven academic practices**, including:

- Curriculum enrichment through **value-added courses, skill development modules and industry exposure**
- Faculty development through training programmes, workshops and academic engagement
- Initiatives in **research orientation**, project-based learning and innovation activities
- Strengthening internal governance mechanisms and academic leadership structures

The institution also demonstrated **responsiveness to national educational reforms**, particularly those related to employability, entrepreneurship and digital learning.

## Maturity Phase – Institutional Readiness for University Transformation

Over the years, Ramachandra College of Engineering has evolved into an institution with:

- Adequate **land, infrastructure and expansion potential**
- Stable and experienced **governance and management support**
- Academic systems capable of supporting **multidisciplinary expansion**
- Institutional vision aligned with **NEP 2020 principles**
- Research, Innovation and Entrepreneurship culture for Regional and National growth aligned with National Missions
- Readiness to move beyond the limitations of the affiliated college framework

The academic journey of RCE with the present **student's strength of 4285**, offering **16 UG & PG** programmes including PhD programmes, **accredited by NAAC with A+ grade** and **accredited by NBA for 5 programmes** reflects a **clear progression from establishment to consolidation, quality enhancement and institutional maturity**. This evolution has naturally led to the aspiration of transforming the institution into a **Deemed to be University**, enabling it to exercise greater academic autonomy, foster interdisciplinary education, promote research and innovation and contribute more effectively to **regional and national development goals**.

Thus, the evolution of Ramachandra College of Engineering represents a **well-planned, steady and purpose-driven institutional growth**, providing a strong foundation for its proposed transition into **Ramachandra Deemed to be University**.

### 1.1.2 Current Status of Higher Education in Eluru Region Andhra Pradesh

**Eluru**, the administrative headquarters of **Eluru district**, occupies a strategically important position in the socio-economic and educational landscape of **coastal Andhra Pradesh**. The district is characterised by **high literacy awareness, strong school education penetration, agrarian prosperity and an aspirational youth population**. However, the higher education ecosystem in the region has not evolved proportionately to meet emerging academic, technological and employment-oriented demands.

Eluru District, with a population of **20.03 lakh** and a predominantly **rural profile (80.70%)**, requires a stronger higher education ecosystem that can deliver **access with quality** through multidisciplinary programmes, flexible pathways and technology-enabled learning. The district's literacy rate (**71.44%**) and workforce participation (**48.19%**) indicate readiness for large-scale skill development, reskilling and employability-linked higher education, particularly for rural youth, women, socially and educationally backward communities.

Economically, Eluru has a reported GDDP of **₹45,963 crore**, driven by agriculture, services and allied sectors such as fisheries/aquaculture and local export-oriented industries. A Deemed-to-be University anchored in Eluru can function as a **regional innovation and human capital engine**, aligning curriculum, research, incubation and outreach with district development priorities.

At the State level **Andhra Pradesh GER (36.5)** indicates strong participation but also a clear requirement to accelerate toward the **NEP target of 50% GER by 2035**.

#### District-Level Higher Education Scenario

The higher education institutions in and around Eluru are predominantly:

- **Affiliated colleges** under state universities
- Largely **single-discipline or limited-discipline institutions**
- Operating with **restricted academic autonomy**
- Lack of industry-academia collaboration

While these institutions have contributed significantly to **access and enrolment**, they face systemic constraints such as:

- Common curricula adopted by affiliating university
- Limited scope for **interdisciplinary programmes**
- Inadequate emphasis on **research, innovation and incubation**
- Slow responsiveness to **industry and societal needs**

#### State-Level Context: Andhra Pradesh

At the state level Andhra Pradesh has made notable progress in expanding access to higher education. However, the state continues to face:

- **Shortage of high-quality, multidisciplinary universities**, particularly outside major urban centres
- Concentration of advanced institutions in a few cities, leading to **regional imbalances**
- Out-migration of talented students to neighbouring states for quality education

The **absence of a comprehensive, autonomous university** in the Eluru–West Godavari region has resulted in:

- Loss of local talent to metropolitan hubs such as **Hyderabad, Bengaluru, Chennai and Visakhapatnam**
- Limited opportunities for **advanced learning, research and entrepreneurship** within the district
- Underutilisation of regional intellectual and economic potential

### Need for a Regional Anchor Institution

Given Eluru’s central location, connectivity and demographic strength, the region is ideally suited for hosting a **multidisciplinary university** that can function as a:

- **Regional anchor institution** for higher education
- Catalyst for **research, innovation and skill development**
- Hub for **industry–academia–community engagement**

The proposed Deemed to be University is envisioned to fill this critical gap by offering **locally accessible, nationally benchmarked and globally relevant higher education**, thereby strengthening the overall educational ecosystem of West Godavari district and surrounding regions.

**Table 1.1: Demographic and Educational Profile – Eluru District**

<b>Indicator</b>	<b>Eluru District</b>	<b>Observations for UGC Justification</b>
District Headquarters	Eluru	Centrally located administrative and educational hub
Population (Approx.)	~39 lakh	Large youth and student population base
Literacy Rate	~74%	Above national average, indicating strong education aspiration
Urban–Rural Composition	Predominantly rural–semi-urban	Need for local access to quality higher education
Gross Enrolment at School Level	High	Indicates pipeline pressure on higher education institutions
Presence of Multidisciplinary Universities	Nil	Clear regional vacuum
Engineering Colleges	4	Mostly teaching-centric, limited autonomy
Research Institutions / University	Nil	Lack of regional research ecosystem

### 1.1.3 Need for Deemed to be University Status

The proposal to confer **Deemed to be University status** on Ramachandra College of Engineering is strongly grounded in **national higher education policy reforms**, regulatory intent and institutional readiness.

#### Limitations of the Affiliated College System

The existing affiliating university framework, while effective for expansion of access, imposes inherent limitations on institutions such as:

- Restricted curriculum design and innovation
- Limited flexibility in introducing **emerging and interdisciplinary programmes**
- Constraints in establishing **research centres and Centres of Excellence**
- Inability to fully implement **NEP 2020 reforms**, including multiple entry–exit, credit mobility and multidisciplinary learning

These constraints hinder capable institutions from realising their full academic and societal potential.

#### Policy Rationale under NEP 2020

The **National Education Policy 2020** explicitly calls for:

- Transition from fragmented institutions to **large multidisciplinary universities**
- Enhanced **institutional autonomy and academic self-governance**
- Integration of teaching, research, innovation and entrepreneurship
- Flexible, student-centric curriculum structures
- Global benchmarking and international collaborations

Granting Deemed to be University status enables institutions to **operationalise these reforms effectively**, which is not feasible under the conventional affiliated model.

#### UGC Deemed to be University Framework

UGC [Institutions Deemed to be Universities] Regulations, 2023 encourage **well-performing and visionary institutions** to evolve into Deemed Universities, particularly under the **Distinct Category**, which recognises:

- Institutional uniqueness and future orientation
- Academic and infrastructural preparedness
- Strong governance and financial sustainability
- Potential to contribute to national and regional development

Ramachandra College of Engineering meets these expectations through its academic maturity, governance stability and expansion capability.

#### Strategic Need for the proposed Deemed to be University

Deemed to be University status will enable Ramachandra College of Engineering to:

- Design **NEP-aligned, multidisciplinary academic programmes**
- Introduce **flexible curricula with Academic Bank of Credits (ABC)**
- Promote **research, innovation and incubation ecosystems**
- Attract and retain **high-quality faculty and researchers**
- Establish **industry-linked skill development frameworks**
- Serve as a **regional centre of excellence** for coastal Andhra Pradesh

### Societal and Regional Imperative

Beyond academic autonomy, the proposed university will play a transformative role by:

- Reducing regional disparities in access to quality higher education
- Retaining local talent and enhancing employability
- Supporting rural and semi-urban development through outreach and applied research
- Aligning higher education outcomes with **state and national development priorities**

Thus, the need for Deemed to be University status is not merely institutional but **strategic, policy-driven and societal**, making the Deemed to be University in Eluru region a **timely and nationally relevant initiative**.

## 1.2 Context of Indian Higher Education and NEP 2020 Alignment

India's higher education system is at a critical juncture, responding to the dual imperatives of **demographic opportunity** and **global competitiveness**. With one of the world's largest youth populations, the country's future economic growth, social cohesion and innovation capacity are intrinsically linked to the **quality, relevance and inclusiveness of its higher education institutions**.

Recognising the structural limitations of the traditional affiliating university model, the Government of India introduced the **National Education Policy (NEP) 2020** as a comprehensive reform framework aimed at transforming higher education into a **flexible, multidisciplinary, learner-centric and research-driven ecosystem**. The policy envisions higher education institutions as **autonomous knowledge hubs** that integrate teaching, research, innovation, entrepreneurship and community engagement.

Within this national context, the proposal for establishing **Deemed to be University** is conceived as a **strategic institutional response** to NEP 2020, aligning institutional growth with national priorities and regional development needs.

### 1.2.1 National Reforms in Higher Education

NEP 2020 marks a decisive shift from incremental reforms to **systemic transformation** in higher education. The key national reform directions relevant to this proposal include:

#### a) Transition to Multidisciplinary Universities

The policy advocates the transformation of higher education institutions into **large, interdisciplinary / multidisciplinary / transdisciplinary universities**, moving away from fragmented, single-discipline structures. This transition is intended to:

- Enhance academic breadth and intellectual flexibility
- Promote interdisciplinary learning and research
- Improve institutional resilience and global relevance

#### **b) Institutional Autonomy and Academic Self-Governance**

NEP 2020 emphasises graded autonomy and academic freedom, enabling institutions to:

- Design and revise curricula independently
- Introduce innovative and emerging programmes
- Respond dynamically to societal and industry needs

#### **c) Research, Innovation and Knowledge Creation**

Higher education institutions are expected to evolve from teaching-centric entities to **research-enabled institutions**, contributing to:

- Knowledge generation
- Applied and translational research
- Innovation-led economic growth

#### **d) Equity, Access and Regional Balance**

A core objective of national reform is to ensure **equitable access to quality higher education**, particularly for students from:

- Rural and semi-urban regions
- Economically and socially disadvantaged backgrounds

These reforms collectively establish a strong policy rationale for encouraging capable institutions to evolve into **Deemed to be Universities**.

### **1.2.2 Key Provisions of NEP 2020 Relevant to Higher Education**

The proposed Deemed to be University is closely aligned with the following key provisions of NEP 2020:

#### **a) Multidisciplinary and Holistic Education**

NEP 2020 promotes education that transcends disciplinary silos, integrating:

- Engineering and technology
- Sciences and computing
- Management and commerce
- Liberal arts and humanities
- Indian Knowledge Systems

The proposed Deemed to be University is envisaged as a **multidisciplinary university** offering a holistic educational experience.

### b) Flexible Curriculum and Multiple Entry–Exit

The policy mandates:

- Flexible curriculum structures
- Multiple entry and exit options
- Academic Bank of Credits (ABC)

Such flexibility is achievable only under an **autonomous university framework**, reinforcing the need for Deemed to be University status.

### c) Outcome-Based and Skill-Oriented Education

NEP 2020 stresses:

- Learning outcomes and competencies
- Employability and entrepreneurship
- Integration of internships and experiential learning

The proposed DTBU aims to embed **industry-aligned skills and outcome-based education** across all programmes.

### d) Integration of Indian Knowledge Systems (IKS)

The policy recognises the importance of India’s traditional knowledge systems and calls for their integration into modern curricula, research and innovation frameworks.

### e) Global Standards and Internationalisation

NEP 2020 encourages institutions to:

- Benchmark globally
- Collaborate internationally
- Attract international students and faculty

The proposed university framework facilitates such global engagement.

**Table 1.2: NEP 2020 Alignment Matrix for the Proposed Deemed to be University**

<b>NEP 2020 Policy Provision</b>	<b>NEP 2020 Intent</b>	<b>Institutional Alignment at Proposed DTBU</b>	<b>Expected Outcomes / Impact</b>
Multidisciplinary Education	Transition from single-discipline institutions to holistic universities	Establishment of multiple Schools: Engineering & Technology, Computing, Applied Sciences, Management, Liberal Arts, IKS	Broad-based education, interdisciplinary competence, academic flexibility

Institutional Autonomy	Academic and administrative self-governance	Deemed to be University status enabling independent curriculum design and governance	Faster academic innovation, responsive decision-making
Flexible Curriculum	Learner-centric, choice-based pathways	Credit-based modular curricula with electives, minors and interdisciplinary courses	Personalised learning pathways
Multiple Entry–Exit	Reduce dropouts and enhance lifelong learning	Full implementation of ABC and multiple exit options with certification	Improved GER and student retention
Academic Bank of Credits (ABC)	Credit mobility across institutions	Digital credit storage, transfer and accumulation	National academic mobility
Outcome-Based Education	Shift from content to competency	Programme Outcomes, Course Outcomes, skill-mapped curricula	Enhanced employability
Skill Development & Employability	Workforce readiness	Embedded internships, industry-supported skill labs	Job-ready graduates

### 1.2.3 Proposed Deemed to be University adopting NEP 2020

Ramachandra Deemed to be University is conceptualised as a **NEP-compliant institution**, translating policy intent into institutional practice. The proposed university will:

- Function as a **multidisciplinary, teaching–research–innovation integrated university**
- Provide **academic autonomy** to design flexible, future-oriented programmes
- Implement **ABC, multiple entry–exit and learner-centric pathways**
- Promote **research, innovation, incubation and entrepreneurship**
- Strengthen **regional equity** by offering quality higher education in a semi-urban district headquarters
- Align institutional outcomes with **national development goals and societal needs**

By evolving from Ramachandra College of Engineering into a Deemed to be University, the institution will exemplify the **NEP 2020 vision of autonomous, accountable and socially responsive higher education institutions**.

Thus, the proposal for the Deemed to be University is not merely an institutional aspiration but a **policy-aligned, nationally relevant and regionally transformative initiative**, fully consistent with the contemporary context of Indian higher education reforms.

### 1.3 Distinct Category Justification (as per UGC Clause 7)

The University Grants Commission, through the **UGC (Institutions Deemed to be Universities) Regulations**, provides for the recognition of institutions under the “**Distinct Category**” to encourage the development of **institutions with unique academic focus, demonstrable strengths and future-oriented vision**. Clause 7 of the regulations envisages Deemed to be Universities that are capable of contributing **innovatively and significantly** to national priorities, regional development and global knowledge systems.

The proposal for establishing **the Deemed to be University** under the **Distinct Category** is founded on the institution's **evolutionary maturity, regional relevance, academic readiness and strategic differentiation**.

### 1.3.1 Existing Strengths of Ramachandra College of Engineering

Ramachandra College of Engineering (RCE), Eluru, promoted by **Ganta Sriram Educational Society**, has developed multiple strengths that collectively justify its consideration under the Distinct Category:

#### a) Institutional Maturity and Stability

- Long-standing 17-years' experience in delivering professional education
- Proven compliance with statutory and affiliating university norms
- Accredited by NAAC in its second cycle with A+ grade
- Accredited by NBA for 5 programmes
- Funding received to the value of 355 Lakhs from AICTE, DST, MSME, DSIR, etc
- Stable governance and financial sustainability

#### b) Academic Readiness

- Established undergraduate and postgraduate programmes in engineering and technology
- Autonomous functioning from 2023
- 100% admissions, every year
- Campus students' strength of 4285
- Qualified and experienced faculty base with 236 members in which 42 are doctorates
- Outcome-based education practices and structured academic processes
- FOUR-star status in MoE's IIC, showcasing innovation ability
- NEP-2020 and SDG-2030 adoption

#### c) Infrastructure and Expansion Capability

- Adequate land and built-up area to support multidisciplinary expansion
- Well-developed academic, laboratory, library, hostel and support facilities
- AICTE IDEA Lab and Research Centre approvals
- Capacity for phased infrastructure development in line with university growth

#### d) Governance and Visionary Leadership

- Strong commitment of the sponsoring society towards quality and long-term development
- Clearly articulated institutional vision aligned with NEP 2020
- Readiness to adopt autonomous governance structures

#### e) Regional Trust and Social Capital

- Established reputation in Eluru, West Godavari and neighbouring districts
- Significant contribution to local human resource development
- Placement index is above 70%
- Strong community connect and outreach orientation

These strengths demonstrate that Ramachandra College of Engineering has **surpassed the operational capabilities of a conventional affiliated autonomous college.**

### 1.3.2 Rationale for Seeking Distinct Category under UGC Clause 7

The rationale for seeking Distinct Category status is based on **differentiation, not replication.** R-DTBU seeks to emerge as a **purpose-driven university** with distinctive characteristics:

#### a) Regional Anchor University Model

- First major **Multidisciplinary University** in the Eluru–West Godavari region
- Focus on reducing educational disparities between urban and rural learners
- A major contributor to empower skilled professionals to bridge the gap between industry and academia

#### b) Multidisciplinary Expansion with Engineering as Core

- Leveraging engineering strength to integrate sciences, computing, management, liberal arts and IKS
- Creation of interdisciplinary programmes responding to **emerging national and global needs**

#### c) NEP 2020 as Institutional Architecture

- Full operationalisation of NEP reforms: ABC, multiple entry–exit, flexible curricula
- Student-centric, choice-based academic pathways

#### d) Research, Innovation and Societal Impact

- Emphasis on **applied, translational and emerging areas of research**
- Development of Centres of Excellence aligned with regional and national priorities

#### e) Inclusive and Equitable Access

- Special focus on first-generation learners, rural students and economically weaker sections
- Scholarships, outreach programmes and community engagement initiatives

These elements position R-DTBU as a **distinct and differentiated higher education institution**, consistent with Clause 7 expectations.

### 1.3.3 Comparison with Other Universities and Positioning of the Proposed University

While several universities operate in Andhra Pradesh and neighbouring states, most are characterised by:

- Urban-centric locations
- Either generalist or highly specialised disciplinary focus
- Limited emphasis on regional equity and community integration

In contrast, the proposed **Deemed to be University** is strategically positioned as:

**Table 1.3: Strategic Position of the Proposed Deemed to be University**

<b>Dimension</b>	<b>Conventional Universities</b>	<b>Proposed DTBU in Eluru</b>
Location	Predominantly urban	Semi-urban district HQ (Eluru)
Academic Structure	Single / limited disciplines	Fully multidisciplinary
Autonomy	Varies	Full academic autonomy
NEP Implementation	Partial	Comprehensive
Regional Focus	Limited	Strong regional mandate
Community Engagement	Peripheral	Core institutional function



*“Ramachandra Deemed to be University shall function as a regionally rooted yet nationally aligned multidisciplinary university, combining academic autonomy, research orientation and social responsibility to serve as a transformative higher education institution for coastal Andhra Pradesh.”*

### **Distinct Category Justification**

In light of the above, Ramachandra College of Engineering satisfies the **spirit and intent of UGC Clause 7** by virtue of its:

- Institutional maturity and readiness
- Distinct academic and regional focus
- Strong alignment with NEP 2020
- Capacity to deliver long-term societal and national impact

Accordingly, the proposed **Deemed to be University** merits consideration under the **Distinct Category**, enabling it to emerge as a **model autonomous university** contributing meaningfully to India’s higher education transformation.

Table 1.4: UGC Clause-7 Compliance Mapping Table

<b>UGC Clause-7 Requirement / Expectation</b>	<b>Regulatory Intent</b>	<b>Compliance / Evidence at the proposed DTBU</b>	<b>UGC Assessment Perspective</b>
<b>Distinct Academic Identity</b>	Encourage universities with unique focus and differentiation	Proposed DTBU as a regional anchor multidisciplinary university with engineering as the core, expanding into sciences, computing, management, liberal arts and IKS	Clear differentiation from conventional affiliated colleges
<b>Institutional Maturity</b>	Only well-established institutions to be considered	Ramachandra College of Engineering (Autonomous) has long-standing academic operations, stable governance and regulatory compliance	Meets maturity threshold
<b>Academic Readiness</b>	Capability to deliver Autonomous programmes	Qualified faculty, outcome-based education practices, curriculum enrichment, readiness for NEP-aligned design	Demonstrates academic preparedness
<b>Multidisciplinary Capability</b>	Alignment with NEP 2020 vision	Proposed Schools across Engineering, Computing, Applied Sciences, Management, Liberal Arts, IKS	Fully aligned with NEP
<b>Research &amp; Innovation Orientation</b>	Move beyond teaching-only institutions	Planned Centres of Excellence, applied research focus, innovation & incubation ecosystem	Forward-looking research intent
<b>Infrastructure Adequacy</b>	Capacity to support university-level expansion	Adequate land, buildings, labs, hostels, library, ICT and scope for phased expansion	Satisfies physical readiness
<b>Governance &amp; Leadership</b>	Transparent, accountable governance systems	Strong sponsoring society (Ramachandra Educational Foundation supported by Ganta Sriram Educational Society), proposed statutory bodies and governance framework	Governance capability evident
<b>Financial Sustainability</b>	Long-term viability without instability	Stable financial backing by sponsoring society, corpus planning, phased growth model	Financial risk mitigated
<b>NEP 2020 Alignment</b>	Policy-driven institutional transformation	Full implementation of ABC, multiple entry–exit, flexible curricula, skill integration	Strong policy compliance
<b>Regional Relevance</b>	Address unmet regional needs	First major autonomous multidisciplinary university in Eluru–West Godavari region	High regional justification
<b>Equity &amp; Inclusion</b>	Promote access and social justice	Focus on rural, semi-urban, first-generation learners, scholarships and outreach	Social mandate aligned

<b>Societal Engagement</b>	HEIs as agents of development	Community-centric research, extension, skill development aligned to regional needs	Positive societal impact
<b>Global &amp; National Relevance</b>	Benchmarking and collaboration	Proposed national and international collaborations, global best practices	Scalable global outlook
<b>Distinct Category Intent</b>	Not replication, but innovation	Proposed DTBU positioned as region-rooted, policy-aligned, future-ready university	Satisfies Clause-7 spirit



*“The true purpose of higher education is not just employment, but enlightenment — to create thinking minds, ethical leaders and responsible citizens.”*

## Chapter-2

### SPONSORING BODY



*“True education transcends disciplines, enabling learners to think critically, act ethically and innovate responsibly—an approach central to the academic philosophy of the proposed University.”*

**Ramachandra Educational Foundation** has been constituted as the sponsoring educational body for the establishment of the proposed **Ramachandra Deemed to be University**.

In support with the parent body, **Ganta Sriram Educational Society**, the Foundation heralds a new phase in the academic legacy and institutional development of **Ramachandra Deemed to be University**. As part of this strategic realignment, the management of Ramachandra College of Engineering (Autonomous) has been formally taken over from **Ganta Sriram Educational Society** by the Trust. The relevant lease deed and supporting documents are enclosed as **Annexure 21.13**.

This consolidation is envisioned to leverage the robust academic foundation, infrastructure, and governance systems already established in **Eluru, Andhra Pradesh**, and to elevate the institution to the next stage of growth through the establishment of a **Deemed to be University under the Distinct Category**, in accordance with the UGC [Institutions Deemed to be Universities] Regulations, 2023. The proposed university aims to build upon its existing strengths while expanding its multidisciplinary academic, research, and innovation ecosystem in alignment with national priorities and NEP-2020.

#### 2.1 Genesis & Evolution of Ganta Sriram Educational Society

Ganta Sriram Educational Society was established with the primary objective of **promoting quality education, social equity and regional development** in and around Eluru and the West Godavari district of Andhra Pradesh. The Society was managed by committed educationists and social leaders who recognised the need for **institutionally strong, ethically governed and future-oriented educational institutions** to serve rural and semi-urban populations, emerged from the experience of **Rama Educational Society** which operates **Ratnam Educational Institutions** in and around Nellore region.

**The Ganta Sriram Educational Society was established in 2007 with registration number 1224/2007 on 23.08.2007 by the Registrar of Societies, Visakhapatnam.** The registration, bye-laws, aims and objects and the managing committee details are provided in **Annexure 21.11**.

Since its inception, the Society has consistently focused on:

- Expanding **access to professional and technical education in Eluru**
- Creating institution with **sound governance and regulatory compliance**
- Ensuring **long-term sustainability** through prudent financial planning
- Aligning educational initiatives with **national development priorities**

The establishment and steady growth of **Ramachandra College of Engineering** under the aegis of the Society reflect its **institution-building capability and governance maturity**, providing a strong foundation for sponsoring a Deemed to be University.

### 2.1.1 Aims and Objects of Ganta Sriram Educational Society

The core aims and objects of the Society include:

- a. To establish and manage educational institutions at primary, pre-primary, secondary, intermediate, under graduate and post graduate levels.
- b. To establish and manage research and development centers in the areas of sciences, social science, medicine, technical and professional disciplines.
- c. To conduct training programmes for teacher, researchers, working employees, owners and managers.
- d. To develop software and maintenance of software required to any field.
- e. To do all other things that are incidental in achieving the aims and objectives.

### 2.1.2 Institutions under Ganta Sriram Educational Society

Under the stewardship of the Society, the following key institution has been established and successfully functional:

- **Ramachandra College of Engineering (Autonomous), Eluru, AP (AISHE - C-18065)**

The institution is consistently complying with statutory requirements, expanding its academic and infrastructural capacity and earned **regional trust and recognition**. The institution details are provided in **Annexure 21.1**. The Society has demonstrated the **financial, administrative and academic capability** required to support the proposed transition to a Deemed to be University.

### 2.1.3 Social Welfare and Community Development Activities

True to its founding vision, the Society actively undertakes **social welfare and community-oriented initiatives**, including:

- Educational scholarships and fee concessions for **economically weaker students**
- Outreach programmes for **rural schools and communities**
- Awareness initiatives on education, technology, health and social development
- Support for skill development and employability initiatives

These activities underscore the Society's **non-profit orientation and societal commitment**, which are key considerations for UGC while evaluating sponsoring bodies.

## 2.2 Genesis & Evolution of Ramachandra Educational Foundation

Ramachandra Educational Foundation has been constituted as a sponsoring educational body to promote the **long-term academic expansion and diversification** envisaged under the proposed Deemed to be University framework.

The trust was established in 2026 with the following registration details

- Name of the Trust: **Ramachandra Educational Foundation**
- Trust Nature: **Public Charitable Trust**
- Registration Date: **22.01.2026**
- Registered at: **Office of the Joint Sub-Registrar, Vatlur, Eluru, Andhara Pradesh**
- Document No.: **1 of 2026**
- Book No.: **4**
- Identification No.: **4-525-1-2026**
- Date of Registration & Scanning: **22-01-2026**
- Stamp Certificate No. **IN-AP58534683330211Y**
- Founder / Author of the Trust: **Shri Korrapati Sai Rohith**

The registration, bye-laws, aims and objects and the managing committee details are provided in **Annexure 21.11**.

The trust has been conceptualised to:

- Facilitate **multidisciplinary academic growth**
- Support **research, innovation and outreach initiatives**
- Strengthen institutional governance and compliance
- Enable structured expansion in line with university-level aspirations

### 2.2.1 Aims and Objects of Ramachandra Educational Foundation

The objects of Ramachandra Educational Foundation include:

- a. To establish/take over maintain and run Schools, Institutions or Colleges on its own or in collaboration or association with other reputed institutions in India and abroad.
- b. To establish, run, develop, improve, grant, continue and administer educational and vocational school or institution or college or university in various places throughout India as well as outside India, subject to various permissions as required, with a motive to render service to the public and especially to economically backward community students without distinction of caste, language, creed, religion or whatsoever.
- c. To promote literacy and education and to lay emphasis on primary, secondary and technical education, especially for the weaker and underprivileged section of the society and to set-up institutions and establishments for the same and for the Upliftment of the socially and economically backward communities & along with other communities.
- d. To provide to the public all required extra-curricular activities for the furtherance of their faculty to enable them to excel in their studies. fine arts, to learn foreign languages, sports including indoor & outdoor games and to educate them in all possible manner for the furtherance of their basic human values and perform works of charity for those in need throughout India.

- e. To establish, maintain funds for the purposes of granting educational scholarships, grants to the un-resourceful and deserving students to upgrade the literacy status of the people at large.
- f. To engage teachers, professors and experts in various subjects and disciplines & conduct enabling themselves to import efficient coaching & teaching to student in various subjects, Vocational interests, research works and other useful pursuits.
- g. To accept donations grants, presents and offerings, in cash (as permitted under Laws) or in kind from the persons, association of persons, firms, companies, institutions. universities in India & abroad and to deal with the purpose of achieving the objects of the trust mentioned above and upon such terms and conditions as trustees may think fit and consistent with the objects of the Trust.
- h. To create and maintain reading room, library, computerized reference section culture, social, literature and to do everything for the propagation of the same and to provide a source of information on education, health, environment, G.K, sports, current affairs and any related activities.
- i. To charge moderate charges, tuition fees, coaching fees, or any other fees called otherwise to recoup the minimum basic administrative and other occupation expenses incurred in the upkeep and the maintenance of the institutions established, takeover or about to be established under this deed for the Trust.
- j. To take or to receive any gift, whether money or property, movable or immovable or donations in any form, whether by gift of the person living or by legacy request, will or foundation and whether subject to any special Trust or not for any anyone or more of the objects of the Trust or for works connected therewith; and to accept the office of and to act as Trustees of the Trust, managers or administrators whether solely or jointly with others or another for or in respect of any gift or any property, whether vested in the trustees of the Trust or otherwise and whether subject to any trust and notwithstanding that the carrying out of such Trusts, management and administrator would involve the exercise of the Trust of powers not specifically mentioned in these presents and moreover to take such steps for the securing of such contributions to the funds of the Trust as may be deemed expedient.
- k. To render social service activities, aimed at improving the living conditions and economic standard of the students and their general welfare, in urban and the rural areas through the Trust and in co-ordination with other NGOs whenever required.
- l. To takeover and administer in educational institutions or colleges from time to time as decided by the trustees and to run the same to achieve the objects of the trust mentioned above.
- m. To enter into an agreement or joint venture with any other institute, institution or college or university In India or in any other country to achieve the objects of the trust mentioned above.
- n. Without prejudice to the generally of the aforementioned objects, the activities would be of purely charitable in nature and not motivated for profit. The funds of the institution would be utilized only towards the objects and no portion of it would be distributed in any manner to the trustees or persons defined in Section 13(1) of the Income Tax Act, 1961.
- o. Notwithstanding anything contained in Section 29 of the Indian Trust Act, 1882, the Trustees may invest, vary and reinvent the funds of the Trust in any manner as an Individual can do in law and it shall not contrary to the provisions of the Income Tax Act, 1961.
- p. The Trust is hereby expressly declared to be a Public Charitable Trust and all the Provisions of this declaration is to be construed accordingly. If any of the objects, in whole or in part or any other provision of this declaration is found to be repugnant or inconsistent

with any of the said provisions as are applicable on the relevant date, such objects or provisions shall be deemed to be honest to the extent of such repugnance or inconsistency and if any of the objects of the trust is found to be invalid on the ground of vagueness or any other reason by the competent authority it shall be deemed to have not been included in the objects of the trust so as to effect the validity of the trust.

It shall be lawful for the trustees to give aid by way of donations out of the income or the corpus of the Trust Fund or otherwise to different charitable institutions, societies, organizations or trusts in India, which may have been established or which may hereafter be established for like charitable purposes mentioned in their presents or any of them to enable such institutions, societies, organization or trustees to start, maintain or carry out such charitable objects as are mentioned in these presents or any of them and also to organize, conduct National level/International level seminars, workshops and other related academic programmes.

The objects of the Trust shall not include any objects involving the activities for profit as specified and within the meaning of the Income Tax Act, 1961, as amended from time to time.

These objectives are fully aligned with the expectations of a sponsoring body under the **UGC (Institutions Deemed to be Universities) Regulations, 2023**.

### **2.2.2 Institutions under Ramachandra Educational Foundation**

At present, the Foundation is focused on supporting the **proposed Deemed to be University**, with future scope for establishing specialised centres and schools aligned with national priorities and regional needs.

## **2.3 Trustees and Governance Structure of Ramachandra Educational Foundation**

### **2.3.1 Board of Trustees**

Both sponsoring societies are governed by a **Board of Trustees** comprising individuals with experience in:

- Education and academic administration
- Governance and institutional management
- Finance, infrastructure and social development

The Board provides **strategic direction, policy oversight and fiduciary governance**, ensuring institutional stability and compliance.

**Table 2.1: Trustee Profiles of the Sponsoring Body of Ramachandra Educational Foundation**

<b>Name of the Trustee</b>	<b>Age</b>	<b>Address</b>	<b>Position in Trust</b>	<b>Educational Qualification</b>	<b>Professional Background</b>	<b>Role in Governance</b>
<b>Shri Korrapati Sai Rohith</b> S/o Shri Korrapati Venugopal	28 years	16-4-1826, 5 <sup>th</sup> Street, Krishna Avenue, Haranadhapuram, Nellore-524003	Chairman and Managing Trustee	MBA	Education Management	Strategic leadership, policy oversight, long-term vision
<b>Shri Korrapati Venugopal</b> S/o Shri Korrapati Venkata Ratnam	55 years	16-4-1826, 5 <sup>th</sup> Street, Krishna Avenue, Haranadhapuram, Nellore-524003	Vice Chairman	BTech	Institutional Management	Support to Chairman, governance supervision
<b>Smt Korrapati Rama</b> W/o Shri Korrapati Venugopal	51 years	16-4-1826, 5 <sup>th</sup> Street, Krishna Avenue, Haranadhapuram, Nellore-524003	Secretary	BSc	Education Management	Day-to-day governance coordination, statutory compliance
<b>Smt Rudrapati Lakshmi Rohitha</b> D/o Shri Rudrapati Venkateswarlu	29 years	3-1236-1, Nagendra Nagar, Near Nagendra Swami Temple, Stone House Pet, Nellore-524002	Treasurer	MBBS	Education Management	Financial planning, infrastructure development

### 2.3.2 Governance Mechanisms

The governance framework of the sponsoring bodies is characterised by:

- Clearly defined roles and responsibilities
- Separation of policy formulation and execution
- Financial prudence and audit compliance
- Commitment to **statutory and regulatory adherence**

These mechanisms ensure that the proposed university will function under **transparent, accountable and professionally managed governance systems**.

### 2.3.3 Future Expansion Vision

The sponsoring bodies envision the proposed Deemed to be University as a:

- **Multidisciplinary knowledge hub** for coastal Andhra Pradesh
- Centre for **research, innovation and skill development**

- Institution aligned with **VBSA 2025 Bill, NEP 2020, SDGs and national missions**
- Regionally rooted yet globally benchmarked university

The long-term vision reflects the **capacity, intent and commitment** of the sponsoring bodies to sustain and grow a Deemed to be University of national relevance.

The unanimous resolution of the Ramachandra Educational Foundation for the establishment of the proposed Deemed to be University is provided in **Annexure 21.13**. Further the financial support from Ganta Sriram Educational Society and lease of the land and property are provided in **Annexure 21.13**.



*“The overarching objective of the proposed University is to evolve into a multidisciplinary, research-oriented and socially responsive institution that delivers high-quality education, fosters innovation and entrepreneurship, ensures inclusivity and equity and contributes meaningfully to regional development and national progress.”*

## Chapter-3

# PROPOSED INSTITUTION: RAMACHANDRA DEEMED TO BE UNIVERSITY



*“The purpose of higher education is not merely the dissemination of knowledge, but its responsible application for societal progress; Ramachandra Deemed to be University is committed to this principle.”*

### 3.1 Background of the Proposed University

The proposal to establish the **Deemed to be University (R-DTBU)** represents a **natural and strategic progression** of Ramachandra College of Engineering (RCE), Eluru, from an affiliated, autonomous, professional institution to an **autonomous, multidisciplinary, research-oriented university**, in line with national higher education reforms and regional developmental needs.

The proposed Deemed to be University is envisioned as a **future-ready institution** that integrates **teaching, research, innovation, skill development and community engagement**, aligned with the **Viksit Bharat Shiksha Adhishthan Bill 2025, National Education Policy (NEP) 2020, UGC Deemed to be University Regulations, 2023** and the broader national goals of **Viksit Bharat @2047**.

The proposed Deemed to be University is conceived not merely as an expansion of existing programmes, but as a **comprehensive transformation of institutional character**, governance, academic philosophy and societal role—moving beyond the limitations of the affiliating university framework.

#### 3.1.1 Historical Evolution from Ganta Sriram Educational Society and Ramachandra College of Engineering to the Proposed University

The academic lineage of the proposed Deemed to be University can be traced to the **vision and commitment of the Ganta Sriram Educational Society**, which was established with the objective of **enhancing access to quality higher education** in the Eluru–West Godavari region.

Under the aegis of the Society, **Ramachandra College of Engineering (RCE)** was established in 2008 as a professional institution focused on delivering **engineering and technology education** to students from rural and semi-urban backgrounds. Over the years, RCE has undergone a **systematic and phased evolution**, characterised by:

- Establishment of strong **academic and administrative systems**
- Development of **qualified faculty and academic leadership**
- Creation of **adequate infrastructure and student support facilities**
- Consistent **regulatory compliance and institutional stability**
- Gradual orientation towards **outcome-based education, skill development and innovation**

As national policy frameworks evolved—particularly with the advent of **NEP 2020**—the limitations of operating as an affiliated college became increasingly evident. The affiliating system

constrained curriculum flexibility, interdisciplinary expansion, research autonomy and global engagement, despite the institution's readiness and ambition.

Recognising these constraints and driven by a **long-term academic and societal vision**, the sponsoring body initiated the process of **institutional transformation**, culminating in the proposal to establish **Deemed to be University** under the **Distinct Category**.

This evolution reflects:

- Institutional maturity
- Governance preparedness
- Academic and infrastructural readiness
- Policy alignment

Thus, the proposed Deemed to be University emerges as a **continuum of growth**, rather than a greenfield initiative, ensuring **continuity, stability and credibility**.

Details including the capabilities of Ramachandra College of Engineering are provided in **Annexure 21.1**.

### 3.1.2 Proposed Name and Location of the University

- **Proposed Name**

The proposed institution shall be named:

**“Ramachandra”**  
**Deemed to be University**  
**(R-DTBU)**



The name reflects:

- Continuity with the established identity and goodwill of Ramachandra College of Engineering
  - Recognition of the academic legacy built by the sponsoring body
  - Alignment with the UGC nomenclature for Deemed to be Universities
  - The name is free from any regional, religious, or restrictive connotations and is suitable for **national and international academic recognition**.
- **Motto: Empowering Minds, Enriching Society**
  - **Location**

**NH-16 Bypass Road, Vatluru (V),  
Eluru, Eluru District,  
Andhra Pradesh State  
Pin - 534007**

- **Proposed Category:** Deemed to be University under the Distinct Category (Existing Institution) as per UGC (Institutions Deemed to be Universities) Regulations, 2023
- **Sponsoring Trust: Ramachandra Educational Foundation** (established in 2026), supported by **Ganta Sriram Educational Society** (established in 2007).
- **Campus Land Area: 23.725 Acre** (one piece of land)
- **Latitude – 16.68619° N and Longitude – 81.02519° E**
- **Distance from Vijayawada Airport – 35 km**
- **Distance from Eluru Railway Junction – 10 km**

### Strategic Significance of Location

Eluru offers several strategic advantages for hosting a Deemed to be University:

- District headquarters with administrative importance
- Strong connectivity to neighbouring districts such as Krishna and East Godavari
- Predominantly rural and semi-urban catchment area with high demand for quality higher education
- Absence of a comprehensive autonomous multidisciplinary university in the region

The location enables the proposed University to function as a **regional anchor institution**, addressing educational inequities and reducing student migration to metropolitan centres.

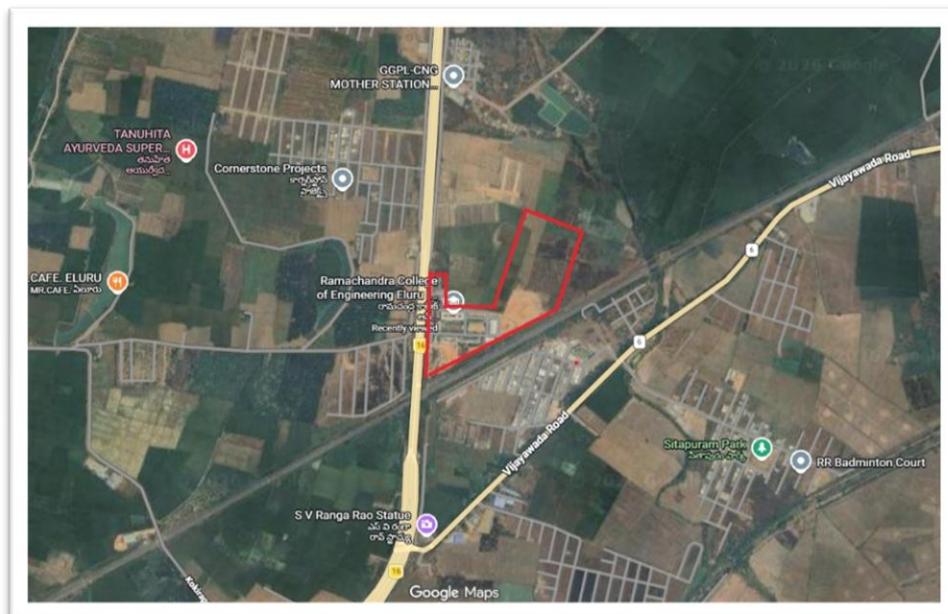


Figure 3.1: Location Map on Chennai-Kolkatta National Highway-16

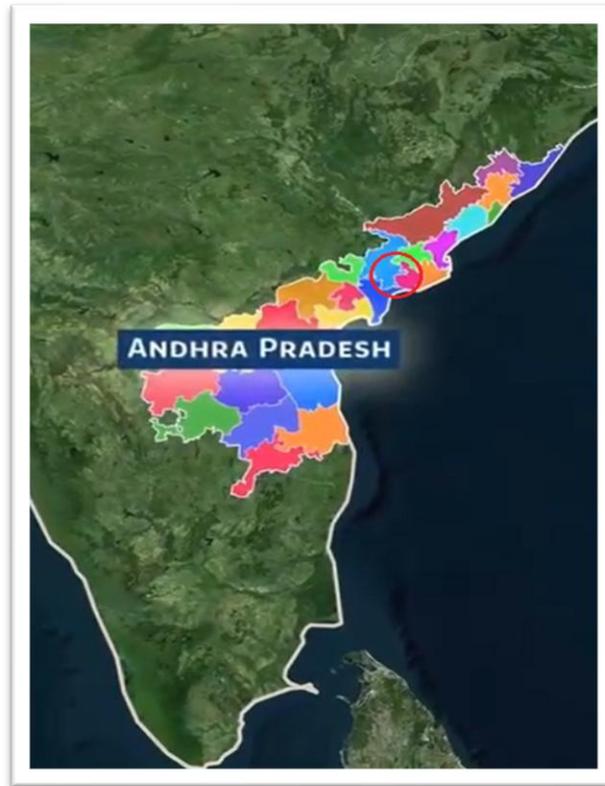


Figure 3.2: Position of the Proposed University in South India

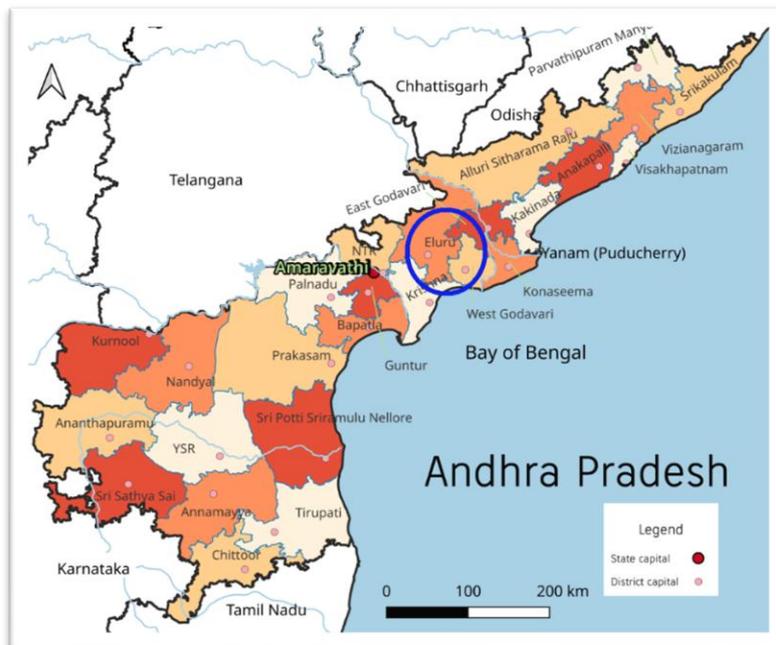


Figure 3.3: Position of the Proposed University in Ahdhra Pradesh

### 3.1.3 Current Status of Academic Programmes and Institutional Scope

At present, Ramachandra College of Engineering offers **professional programmes primarily in engineering and technology**, operating within the affiliating university framework. These programmes have laid the **academic foundation** for the proposed University.

#### Existing Academic Scope

- Undergraduate and postgraduate programmes in engineering and allied areas
- Structured teaching–learning processes
- Student support systems including mentoring, training and placements

#### Limitations under the Existing Framework

- Restricted scope for multidisciplinary programmes
- Limited autonomy in curriculum design and revision
- Constraints in introducing emerging and interdisciplinary domains
- Limited institutional research ecosystem

#### Proposed Expansion under R-DTBU

Upon establishment as a Deemed to be University, the academic scope will be **significantly expanded** to include:

- Engineering and Technology
- Computing, AI and Data Sciences
- Applied Sciences
- Management and Commerce
- Liberal Arts and Humanities
- Indian Knowledge Systems (IKS)
- Architecture and Design

This expansion will enable R-DTBU to function as a **comprehensive multidisciplinary university**, fully aligned with NEP 2020.

The background of the proposed Ramachandra Deemed to be University demonstrates a clear evolutionary pathway, strong institutional foundations and compelling regional and policy justification. The transformation from Ramachandra College of Engineering to R-DTBU represents a strategic shift towards autonomy, multidisciplinary education, research orientation and societal impact, positioning the proposed University as a future-ready higher education institution of regional and national significance.

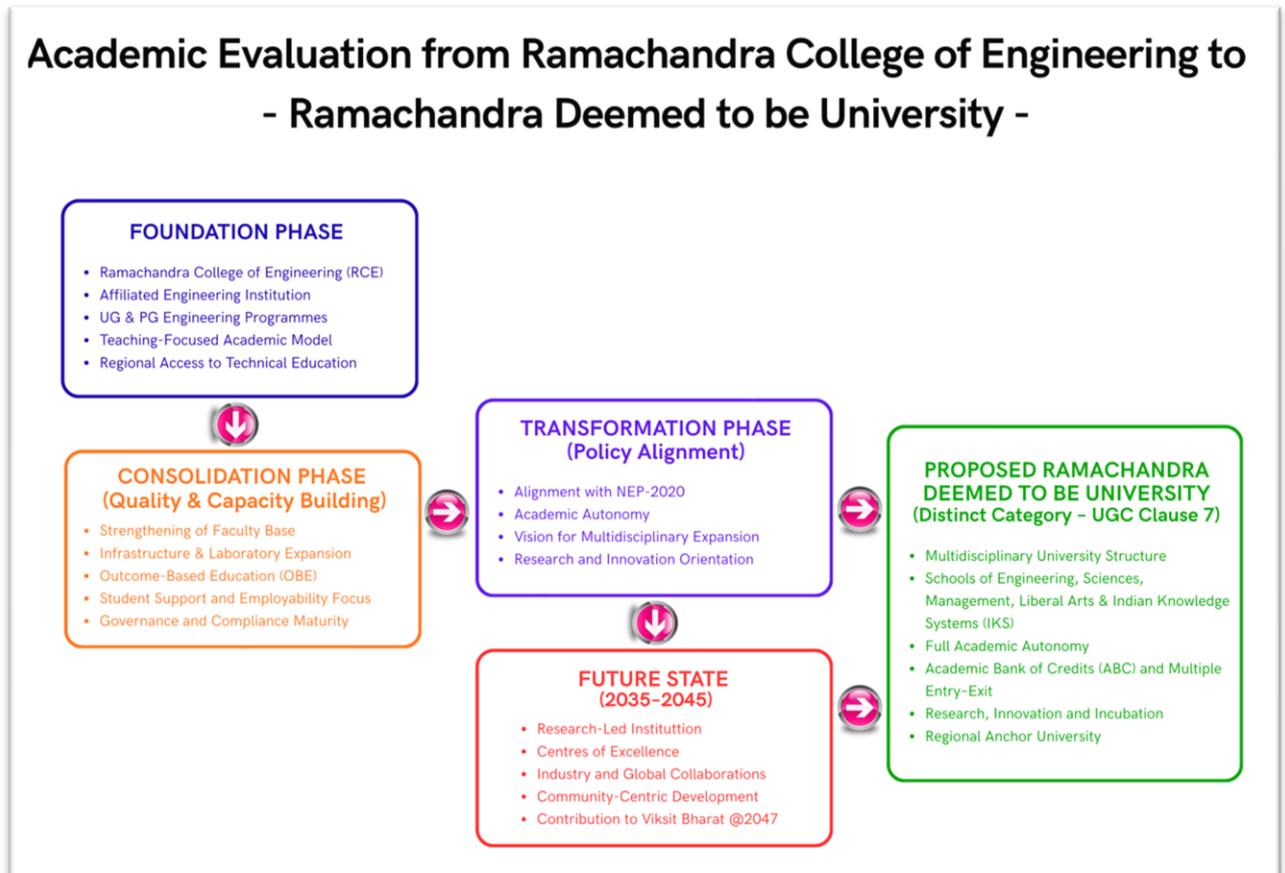


Figure 3.4: Academic Evaluation of Ramachandra College of Engineering

## 3.2 Vision, Mission and Core Values

The Vision, Mission and Core Values of **Ramachandra Deemed to be University** are carefully articulated to reflect its **institutional philosophy, national responsibilities and long-term aspirations**. These statements are aligned with the **National Education Policy (NEP) 2020, UGC [Institutions Deemed to be Universities] Regulations, 2023** and the broader goals of **Viksit Bharat @2047**, ensuring coherence between purpose, strategy and outcomes.

### 3.2.1 Vision Statement

#### Vision



*To emerge as a nationally reputed and globally benchmarked multidisciplinary university, fostering academic excellence, research and innovation, ethical leadership and inclusive development, while serving as a regional anchor institution for sustainable societal transformation.*

#### Vision Alignment Highlights

- Multidisciplinary and holistic education (NEP 2020)

- Research-led and innovation-driven growth
- Regional relevance with national and global outlook
- Commitment to societal and sustainable development

### 3.2.2 Mission Statement

The mission of Ramachandra Deemed to be University is to translate its vision into **measurable academic, research and societal outcomes** through the following objectives:

1. **To deliver NEP-aligned, multidisciplinary and flexible academic programmes** that foster critical thinking, creativity, lifelong learning and outcome-based education with academic rigour.
2. **To promote excellence in fundamental, applied and translational research** through Centres of Excellence, research clusters and a vibrant innovation ecosystem addressing societal challenges.
3. **To integrate skill development, experiential learning and industry engagement** across all programmes to enhance employability, entrepreneurship and self-reliance.
4. **To leverage institutional autonomy and academic flexibility** for curriculum innovation, interdisciplinary learning and multiple entry–exit pathways through the Academic Bank of Credits (ABC).
5. **To ensure inclusive, equitable and accessible education** with special focus on rural, semi-urban and first-generation learners through scholarships, mentoring and outreach initiatives.
6. **To embed Indian Knowledge Systems (IKS), ethics and constitutional values** within teaching, research and community practices while preserving cultural heritage.
7. **To function as a socially responsible, community-centric university** contributing to local and regional development through extension, outreach and applied research.
8. **To strengthen global engagement and benchmarking** through national and international collaborations, joint research, faculty exchange and adoption of global best practices.

### 3.2.3 Institutional Core Values

The functioning and growth of Ramachandra Deemed to be University shall be guided by the following **core values**, which define its institutional culture and governance ethos:

1. **Academic Integrity and Excellence**  
Commitment to high standards in teaching, learning, research and evaluation.
2. **Autonomy with Accountability**  
Responsible academic freedom supported by transparent governance and quality assurance.

3. **Innovation and Creativity**  
Encouraging curiosity, interdisciplinary thinking and problem-solving.
4. **Inclusivity and Equity**  
Ensuring fair access, diversity and social justice in all institutional processes.
5. **Ethics and Social Responsibility**  
Upholding ethical conduct, civic responsibility and service to society.
6. **Respect for Indian Knowledge Systems and Culture**  
Valuing India's intellectual heritage while embracing modern scientific thought.
7. **Sustainability and Environmental Consciousness**  
Promoting sustainable practices in academics, research and campus development.
8. **Global Outlook with Regional Commitment**  
Balancing global standards with responsiveness to regional and national needs.

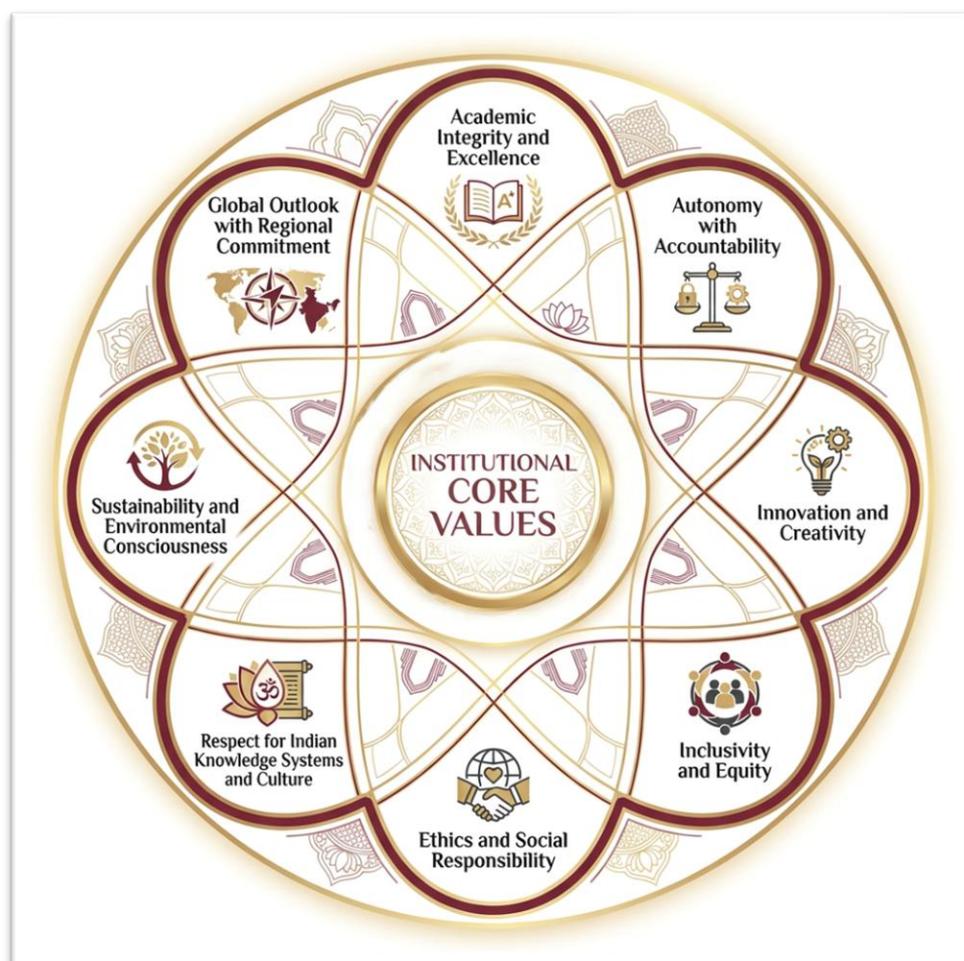


Figure 3.5: Institutional Core Values of the proposed Ramachandra Deemed to be University

The Vision, Mission and Core Values of Ramachandra Deemed to be University:

- Demonstrate **clear NEP 2020 alignment**
- Reflect **Distinct Category intent** (UGC Clause 7)
- Integrate **academic excellence, research, inclusivity and societal impact**
- Provide a strong foundation for **strategic planning and quality assurance**

### 3.3 Distinctive Features and Academic Thrust Areas

Ramachandra Deemed to be University is conceptualised as a **distinct, future-ready multidisciplinary university**, designed to respond to **national policy imperatives, regional developmental needs and global academic trends**. Its distinctive features and academic thrust areas collectively establish a **clear differentiation** from conventional universities and affiliated institutions.

#### 3.3.1 Distinctive Features of Ramachandra Deemed to be University

##### a) Regional Anchor Multidisciplinary University

R-DTBU is envisioned as a **regional anchor institution** for Eluru and the wider West Godavari–coastal Andhra Pradesh region. Unlike urban-centric universities, it is strategically positioned to:

- Provide **local access to nationally benchmarked higher education**
- Reduce regional disparities and student migration
- Support rural and semi-urban talent through inclusive academic pathways

This regional anchoring is a **core distinguishing feature** under UGC Clause 7.

##### b) Engineering-Rooted Multidisciplinary Expansion

The University builds upon the **established strength of Ramachandra College of Engineering**, expanding systematically into:

- Computing and data-driven disciplines
- Applied sciences
- Management and commerce
- Liberal arts and humanities
- Indian Knowledge Systems (IKS)

This **engineering-anchored multidisciplinary university** ensures both academic depth and breadth, enabling interdisciplinary learning and research.

##### c) Full NEP 2020 Operationalisation

R-DTBU is designed in alignment with **NEP 2020**, with complete operationalisation of:

- Flexible curricula and choice-based learning
- Academic Bank of Credits (ABC)
- Multiple entry–exit options
- Interdisciplinary / multidisciplinary / transdisciplinary majors, minors and electives

#### **d) Research, Innovation and Translational Focus**

Distinct from teaching-centric institutions, R-DTBU emphasises:

- Applied and translational research
- Problem-solving for regional and national challenges
- Integration of research with teaching at UG and PG levels
- Innovation, incubation and entrepreneurship

The University will prioritise **research with societal relevance**, rather than isolated academic output.

#### **e) Integration of Indian Knowledge Systems (IKS)**

A unique feature of R-DTBU is the **structured integration of Indian Knowledge Systems**, including:

- Traditional sciences, ethics and value systems
- Indigenous knowledge aligned with modern disciplines
- Interdisciplinary IKS-based research and curriculum modules

This integration aligns strongly with **NEP 2020 and national cultural priorities**.

#### **f) Inclusive, Student-Centric University**

R-DTBU places students at the centre of its academic ecosystem through:

- Mentoring and academic advising systems
- Support for first-generation and rural learners
- Scholarships and outreach programmes
- Skill-embedded curricula focused on employability

Inclusivity and equity are **core institutional commitments**, not peripheral activities.

#### **g) Governance, Quality and Accountability Orientation**

The University shall operate with:

- Transparent and participatory governance
- Clearly defined statutory bodies
- Strong Internal Quality Assurance mechanisms
- Continuous improvement aligned with NAAC, NBA and NIRF frameworks

This governance ethos reinforces **credibility and sustainability**, key expectations under UGC Clause 7.

### 3.3.2 Academic Thrust Areas

The academic thrust areas of Ramachandra Deemed to be University are identified based on **regional relevance, national priorities and future workforce demands.**

#### a) Engineering and Emerging Global Technologies

- Core and advanced engineering disciplines
- Interdisciplinary / multidisciplinary / transdisciplinary technology programmes
- Industry-aligned curricula and applied projects

#### b) Computing, Data and Digital Technologies

- Computer science, data science, artificial intelligence and allied areas
- Digital transformation, automation and analytics
- Integration of computing across disciplines

#### c) Applied Sciences

- Science-driven innovation supporting engineering and technology
- Research-oriented undergraduate and postgraduate education

#### d) Management, Entrepreneurship and Commerce

- Management education aligned with industry and startups
- Entrepreneurship development and innovation management
- Financial, organisational and leadership competencies

#### e) Liberal Arts, Humanities and Social Sciences

- Interdisciplinary humanities education including yoga
- Communication, ethics, critical thinking and social analysis
- Holistic development of learners as responsible citizens

#### f) Indian Knowledge Systems (IKS)

- IKS-integrated courses and research
- Cross-disciplinary applications of traditional knowledge
- Cultural, ethical and sustainability-oriented studies

#### g) Community-Centric and Regional Studies

- Programmes and research addressing agriculture, rural development, sustainability and local industries
- Community-based projects and extension activities

### 3.3.3 Future Academic Development Orientation

The academic thrust areas will evolve dynamically through:

- Periodic curriculum review and updating
- Industry and societal feedback
- National mission alignment
- Global academic benchmarking

This ensures that R-DTBU remains **future-ready, relevant and responsive** over the long term.

The distinctive features and academic thrust areas of Ramachandra Deemed to be University clearly demonstrate:

- **Differentiation from conventional universities**
- **Strong NEP 2020 alignment**
- **Regional relevance with national significance**
- **Research and innovation orientation**
- **Inclusive and ethical academic philosophy**

Together, these elements strongly justify the proposal under **UGC Clause 7 – Distinct Category**.

## 3.4 Objectives of the Proposed Ramachandra Deemed to be University

The objectives of **Ramachandra Deemed to be University (R-DTBU)** are framed to translate its **Vision and Mission** into **actionable academic, research and societal outcomes**. These objectives are aligned with **NEP 2020**, UGC [Institutions Deemed to be Universities] Regulations, 2023, national development priorities and regional aspirations of coastal Andhra Pradesh.

### 3.4.1 Academic Objectives

The academic objectives of R-DTBU are to:

1. Establish a **multidisciplinary university framework** integrating engineering, sciences, computing, management, liberal arts and Indian Knowledge Systems.
2. Design and deliver **NEP-aligned, flexible and outcome-based curricula** that promote critical thinking, creativity and lifelong learning.
3. Implement **Academic Bank of Credits (ABC)** and **multiple entry–exit pathways** to enhance student mobility and retention.
4. Promote **interdisciplinary / multidisciplinary / transdisciplinary learning** through majors, minors, electives and project-based education.
5. Benchmark academic standards against **national and global best practices**.

### 3.4.2 Research and Innovation Objectives

The research and innovation objectives of R-DTBU are to:

1. Foster a **research-oriented academic culture** among undergraduate, postgraduate and doctoral levels.

2. Establish **Centres of Excellence and research clusters** addressing regional, national and global challenges.
3. Promote **applied, translational and community-oriented research** with measurable societal impact.
4. Encourage **faculty and student research output**, including publications, patents and funded projects.
5. Align institutional research with **national missions, SDGs and emerging technology domains**.

### 3.4.3 Technology Integration Objectives

The technology integration objectives of R-DTBU are to:

1. Leverage **digital technologies and ICT platforms** for teaching, learning, research and governance.
2. Implement **blended, online and experiential learning models** to enhance accessibility and flexibility.
3. Use data-driven systems for **academic planning, quality assurance and decision-making**.
4. Promote digital literacy, computational thinking and technology fluency across all disciplines.

### 3.4.4 Entrepreneurship and Skill Development Objectives

The University aims to:

1. Integrate **skill development and employability enhancement** into all academic programmes.
2. Establish **innovation, incubation and entrepreneurship ecosystems** within the University.
3. Promote **startup culture, self-employment and enterprise creation** among students and faculty.
4. Strengthen **industry partnerships** for internships, live projects and skill labs.
5. Align graduate attributes with **current and future workforce requirements**.

### 3.4.5 Outreach and Community Engagement Objectives

The outreach objectives of R-DTBU are to:

1. Function as an **Anchor University** addressing local and regional development needs.
2. Undertake **extension activities, capacity-building programmes and community-based research**.
3. Support rural development, sustainability and social innovation initiatives.
4. Promote student participation in **social responsibility and civic engagement** activities.

### 3.4.6 Global Collaboration Objectives

The global engagement objectives of R-DTBU are to:

1. Establish **national and international academic collaborations** for teaching, research and innovation.
2. Facilitate **faculty and student exchange programmes** and joint research initiatives.
3. Benchmark institutional practices against **globally reputed universities**.
4. Enhance the global visibility and academic reputation of the University.

### 3.4.7 Quality Assurance and Governance Objectives

The governance and quality objectives of R-DTBU are to:

1. Establish **robust statutory bodies and transparent governance mechanisms** in compliance with UGC [Institutions Deemed to be Universities] Regulations, 2023.
2. Promote a culture of **continuous quality improvement** through IQAC and internal review systems.
3. Align institutional practices with **NAAC, NBA, NIRF and global accreditation frameworks**.
4. Ensure **accountability, ethical conduct and stakeholder participation** in institutional governance.

### 3.5 Integration of Indian Knowledge Systems (IKS)

The integration of **Indian Knowledge Systems (IKS)** is a foundational pillar of **Ramachandra Deemed to be University (R-DTBU)**, reflecting the University's commitment to **holistic education, cultural continuity, ethical grounding and sustainable development**, as envisioned in the **National Education Policy (NEP) 2020**.

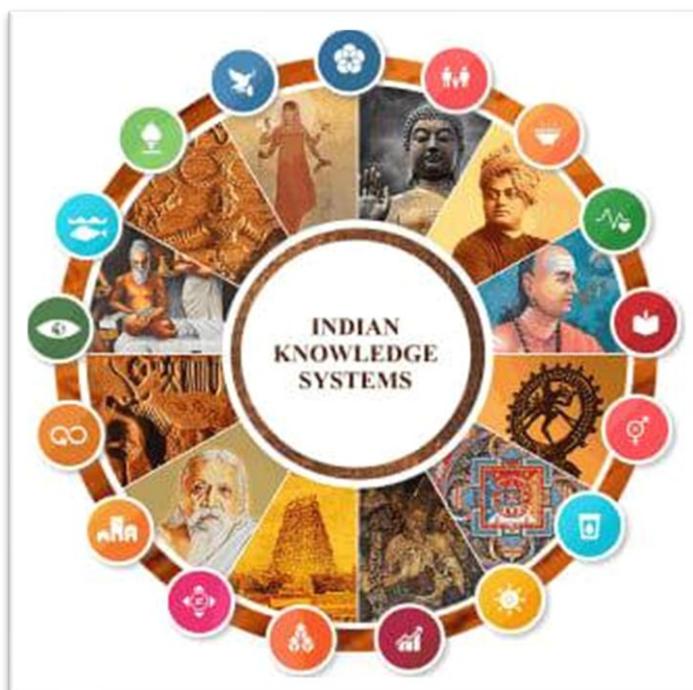


Figure 3.6: Indian Knowledge System

IKS at R-DTBU is conceived not as an ancillary or symbolic inclusion, but as a **systematically embedded academic, research and societal framework** that complements modern disciplines and global knowledge systems.

### **3.5.1 Rationale for IKS Integration**

NEP 2020 explicitly recognises India's rich intellectual traditions and calls upon higher education institutions to:

- Integrate **Indian epistemologies, sciences, philosophies and practices** with contemporary education
- Promote **value-based education, ethics and constitutional ideals**
- Encourage **contextual, sustainable and indigenous problem-solving approaches**

R-DTBU, rooted in a culturally vibrant and historically rich region of Andhra Pradesh, is uniquely positioned to operationalise this vision through a **structured and academically rigorous IKS framework**.

### **3.5.2 Institutional Framework for IKS at R-DTBU**

To ensure systematic implementation, the University proposes:

- Establishment of a **School / Centre for Indian Knowledge Systems**
- Integration of IKS into **curriculum design, pedagogy, research and outreach**
- Appointment of **IKS domain experts and faculty coordinators**
- Inter-School collaboration to embed IKS across disciplines

This framework ensures that IKS is **institutionalised**, rather than fragmented or elective-only.

### **3.5.3 IKS Integration in Curriculum and Teaching–Learning**

IKS will be integrated into the academic ecosystem through:

#### **a) Foundational and Core Courses**

- Indian Knowledge Traditions
- Ethics, Values and Constitutional Philosophy
- Indian scientific heritage and epistemology

#### **b) Discipline-Specific Integration**

- Engineering and Sciences: traditional materials, architecture, water management, metallurgy, mathematics
- Computing and Management: ancient Indian logic, decision-making frameworks, leadership philosophies
- Liberal Arts: Indian philosophy, literature, history and socio-cultural studies

#### **c) Pedagogical Approaches**

- Experiential and practice-based learning

- Case studies rooted in Indian contexts
- Field engagement and documentation of indigenous practices

This approach ensures **contextual relevance and intellectual depth**, rather than superficial inclusion.

### 3.5.4 IKS-Oriented Research and Knowledge Creation

R-DTBU will promote **IKS-based research** through:

- Interdisciplinary research projects linking IKS with modern science and technology
- Documentation and validation of **indigenous and traditional knowledge systems**
- Applied research on sustainability, health, agriculture, architecture and ecology
- Publication of research outputs in recognised journals and knowledge repositories

The emphasis will be on **evidence-based, academically rigorous and socially useful research**, contributing to both national and global knowledge systems.

### 3.5.5 IKS and Community Engagement

The University will extend IKS beyond classrooms by:

- Engaging with **local communities, artisans, practitioners and traditional experts**
- Organising workshops, lectures and outreach programmes on Indian knowledge traditions
- Regional-supportive projects addressing local challenges through indigenous technological solutions

This aligns with the vision of the University as a **community-centric and socially responsible institution**.

### 3.5.6 IKS, Ethics and Holistic Student Development

IKS integration at R-DTBU will contribute to:

- Ethical reasoning and moral leadership
- Respect for cultural diversity and heritage
- Environmental consciousness and sustainability
- Development of socially responsible graduates

By embedding values alongside skills and knowledge, the University aims to produce **professionally competent and ethically grounded graduates**.

### 3.5.7 Alignment with NEP 2020 and UGC Expectations

The IKS framework at R-DTBU directly aligns with:

- NEP 2020 emphasis on **Indian ethos and value-based education**
- UGC's encouragement of **distinctive institutional identity**
- Clause 7 expectations of **innovation, uniqueness and societal relevance**

This positions IKS as a **distinct academic and cultural differentiator** for Ramachandra Deemed to be University.

### 3.6 Proposed Societal Contribution & SDG Alignment

The proposed **Ramachandra Deemed to be University (R-DTBU)** is envisioned not merely as a centre of academic excellence, but as a **socially responsive and development-oriented university**, committed to contributing meaningfully to **regional transformation, national priorities and global sustainability goals**.

In alignment with the **National Education Policy (NEP) 2020**, the University recognises higher education institutions as **key drivers of social equity, economic development, environmental sustainability and community well-being**. Accordingly, R-DTBU integrates societal contribution as a **core institutional mandate**, embedded across teaching, research, outreach and governance.

#### 3.6.1 Societal Orientation of Ramachandra DTBU

The societal contribution framework of R-DTBU is anchored on the following principles:

- **Inclusive growth and equitable access to quality higher education**
- **Regional development through knowledge, skills and innovation**
- **Community-centric research and extension**
- **Ethical leadership and social responsibility**
- **Sustainability and environmental stewardship**

As a university located in a predominantly **rural and semi-urban region**, R-DTBU is strategically positioned to address **grassroots challenges** while contributing to national and global development agendas.

#### 3.6.2 Alignment with Sustainable Development Goals (SDGs)

The societal initiatives of R-DTBU are aligned with the **United Nations Sustainable Development Goals (SDGs)**, ensuring that institutional outcomes contribute to **global sustainability commitments**.

##### Contribution to SDG 3 – Good Health and Well-being

R-DTBU shall contribute to SDG 3 through:

- Research and awareness programmes related to **public health, hygiene and well-being**
- Technology-enabled health solutions and community outreach
- Promotion of mental health, physical fitness and wellness among students and communities



Figure 3.7: SDG aligned of the proposed Ramachandra Deemed to be University

### Contribution to SDG 4 – Quality Education

As its core mandate, the University will:

- Provide **inclusive, equitable and quality higher education**
- Promote lifelong learning opportunities through flexible academic pathways
- Enhance access for rural, first-generation and disadvantaged learners
- Strengthen academic quality through outcome-based and multidisciplinary education

### Contribution to SDG 5 – Gender Equality

R-DTBU is committed to:

- Promoting gender equity in admissions, faculty recruitment and leadership
- Creating safe, inclusive and supportive campus environments
- Encouraging women's participation in STEM, leadership and entrepreneurship

- Implementing statutory mechanisms for gender sensitisation and protection

### **Contribution to SDG 8 – Decent Work and Economic Growth**

The University will support SDG 8 by:

- Enhancing employability through **skill-integrated curricula**
- Promoting entrepreneurship, innovation and startups
- Strengthening industry partnerships for internships and placements
- Supporting regional economic development through skilled human capital

### **Contribution to SDG 9 – Industry, Innovation and Infrastructure**

R-DTBU shall:

- Foster innovation through research centres, incubation facilities and industry collaboration
- Promote applied and translational research addressing local and national challenges
- Support sustainable infrastructure development and digital transformation

### **Contribution to SDG 11 – Sustainable Cities and Communities**

The University will:

- Engage in research and outreach related to **urban–rural development**
- Promote sustainable practices in campus planning and community projects
- Support local governance and development initiatives through knowledge partnerships

### **Contribution to SDG 17 – Partnerships for the Goals**

R-DTBU recognises collaboration as essential for societal impact and will:

- Establish partnerships with **government, industry, NGOs and academic institutions**
- Promote interdisciplinary and inter-institutional initiatives
- Participate in national and international development programmes

### **3.6.3 Institutional Mechanisms for Societal Engagement**

To ensure sustained societal contribution, the University proposes:

- Dedicated **Extension and Outreach Cells**
- Integration of **community-based projects** into curricula
- Incentivisation of faculty and student participation in societal initiatives
- Periodic assessment of social impact through measurable indicators

### **3.6.4 Regional Impact Focus**

As a **regional anchor university**, R-DTBU shall:

- Address educational and skill gaps in West Godavari and neighbouring districts
- Support rural innovation, sustainability and livelihood enhancement

- Retain local talent and reduce regional disparities in access to quality education

### 3.7 Community Commitments

**Ramachandra Deemed to be University (R-DTBU)** recognises that a university's excellence is measured not only by academic outputs but also by its **commitment to the community it serves**. Situated in the Eluru–West Godavari region, characterised by a predominantly rural and semi-urban population, the University commits itself to functioning as a **community-centric institution**, actively contributing to social development, capacity building and inclusive growth. Community engagement at R-DTBU is conceived as a **structured, sustained and measurable institutional responsibility**, integrated into teaching, research, extension and governance.

#### 3.7.1 Philosophy of Community Engagement

The community commitments of R-DTBU are guided by the following principles:

- **Education as a public good**
- **Mutual learning between the University and society**
- **Respect for local knowledge, culture and practices**
- **Inclusive development and social equity**
- **Sustainable and long-term impact rather than ad-hoc interventions**

This philosophy aligns with **NEP 2020**, which positions higher education institutions as **active partners in community and national development**.

#### 3.7.2 Key Areas of Community Commitment

##### a) Educational Outreach and Capacity Building

R-DTBU commits to:

- Supporting **school education** through mentoring, teacher training and academic enrichment programmes
- Providing **career guidance, counselling and awareness programmes** for rural and first-generation learners
- Promoting digital literacy and foundational skills in surrounding communities

##### b) Skill Development and Employability Support

The University shall:

- Conduct **skill development and vocational training programmes** aligned with local employment needs
- Support youth and community members through **short-term certification and reskilling initiatives**
- Collaborate with government and industry for community-based skill initiatives

### c) Community-Centric Research and Innovation

R-DTBU will:

- Encourage **applied research addressing local challenges** in agriculture, water management, sustainability, health and livelihoods
- Integrate community-based projects into academic programmes
- Facilitate knowledge transfer from research outcomes to community application

### d) Health, Hygiene and Well-Being Initiatives

The University commits to:

- Organising health awareness programmes, camps and wellness initiatives
- Promoting mental health, nutrition and preventive healthcare awareness
- Collaborating with local agencies for community well-being initiatives

### e) Environmental Sustainability and Rural Development

R-DTBU shall:

- Promote environmental awareness and sustainability practices in neighbouring villages
- Support initiatives related to water conservation, waste management and green practices
- Encourage student participation in environmental and rural development projects

### 3.7.3 Student and Faculty Engagement in Community Service

Community engagement at R-DTBU will be institutionalised through:

- Mandatory **community-oriented projects and internships**
- Faculty-led outreach programmes and advisory roles
- Recognition and incentives for meaningful community engagement
- Integration of service learning into curricula

This ensures that community commitment becomes an **integral part of the educational experience**.

### 3.7.4 Institutional Mechanisms for Community Engagement

To ensure effective implementation, the University proposes:

- Establishment of **Extension and Outreach Centres**
- Formation of **Community Advisory Committees**
- Periodic planning, monitoring and impact assessment of outreach initiatives
- Documentation and dissemination of best practices

### 3.7.5 Long-Term Community Impact Vision

Over time, Ramachandra Deemed to be University aims to:

- Serve as a **knowledge and development partner** for the Eluru–West Godavari region
- Contribute to **human capital development and social mobility**
- Strengthen the linkage between **higher education, local economy and societal well-being**
- Act as a **model community-engaged university** in coastal Andhra Pradesh

### 3.8 A Holistic Approach to Nation Building and Global Impact

**Ramachandra Deemed to be University (R-DTBU)** envisions higher education as a **transformative national institution-building enterprise**, contributing not only to academic advancement but also to **nation building, social cohesion, economic growth, cultural continuity and global engagement**. The University adopts a holistic approach that integrates **education, research, innovation, ethics and societal responsibility**, in alignment with national aspirations and global benchmarks.

#### 3.8.1 Contribution to Nation Building

R-DTBU shall contribute to nation building through:

##### a) Human Capital Development

- Producing **skilled, competent and adaptable graduates** aligned with national workforce needs
- Promoting critical thinking, creativity and leadership among learners
- Supporting lifelong learning and continuous upskilling

##### b) Alignment with National Development Priorities

- Academic and research focus aligned with **national missions, Viksit Bharat @2047 and Atmanirbhar Bharat**
- Knowledge and skill development supporting **economic self-reliance and innovation**
- Contribution to public policy discourse through research and expertise

##### c) Promotion of Ethical and Constitutional Values

- Integration of ethics, values and constitutional principles into education
- Fostering responsible citizenship, social harmony and national unity
- Encouraging respect for diversity and inclusive nationhood

#### 3.8.2 Knowledge Creation and Research for National Progress

The University will:

- Promote **research addressing national and regional challenges**
- Encourage interdisciplinary collaboration for problem-solving
- Support innovation, startups and indigenous technology development
- Translate research outcomes into **societal and economic benefits**

This research orientation ensures that knowledge creation at R-DTBU directly contributes to **national progress and self-reliance**.

### 3.8.3 Global Engagement and International Impact

Recognising the interconnected nature of modern higher education, R-DTBU adopts a **global outlook**, while remaining rooted in national priorities.

#### a) International Academic Collaboration

- Establishing partnerships with **foreign universities and research institutions**
- Joint research projects, faculty exchange and collaborative programmes
- Participation in global academic networks

#### b) Global Benchmarking and Best Practices

- Adopting globally recognised academic and governance standards
- Continuous benchmarking against international universities
- Preparing graduates for **global mobility and competitiveness**

#### c) Promotion of India's Knowledge and Cultural Heritage

- Showcasing **Indian Knowledge Systems and research** on global platforms
- Contributing to global discourse through Indian perspectives
- Acting as a conduit for cultural and intellectual exchange

### 3.8.4 Regional Roots with Global Reach

A defining feature of R-DTBU's holistic approach is the **integration of regional relevance with global impact**:

- Addressing local challenges through globally informed solutions
- Retaining local talent while enabling global exposure
- Positioning Eluru as an emerging higher education hub

This balance ensures sustainable and inclusive growth.

### 3.8.5 Institutional Culture for Long-Term Impact

The University will nurture an institutional culture characterised by:

- Academic excellence and integrity
- Innovation and entrepreneurship
- Inclusivity and social responsibility
- Environmental sustainability
- Global citizenship

Such a culture ensures that R-DTBU remains **future-ready, resilient and impactful**.



*“Ramachandra Deemed to be University commits to advancing nation building and global engagement through quality education, research and innovation, ethical values and societal responsibility, thereby contributing to India's development and global knowledge leadership.”*

## Chapter-4

### EXISTING COLLEGE AND PROPOSED SCHOOLS



*“Education at Ramachandra Deemed to be University is envisioned as a transformative force—integrating knowledge, skill, research, innovation and values—to empower learners as responsible professionals, ethical leaders and contributors to national and global development.”*

#### 4.1 Ramachandra College of Engineering

**Ramachandra College of Engineering**, Eluru, promoted by **Ganta Sriram Educational Society** and now by **Ramachandra Educational Foundation** constitutes the **academic and institutional nucleus** of the proposed **Ramachandra Deemed to be University**.

The College has evolved as a **professional engineering institution** offering undergraduate and postgraduate programmes under the affiliating university framework, with a strong emphasis on:

- Engineering fundamentals and applied learning
- Outcome-based education (OBE)
- Laboratory-intensive pedagogy
- Student mentoring and employability support

#### Academic and Institutional Strengths

- Established academic systems with 16 UG & PG programmes and PhD programmes
- Qualified and experienced 236 faculty members
- Adequate physical and digital infrastructure for the present student’s strength of 4285
- Proven governance and statutory compliance
- Regional credibility and student trust
- Foreign Language (German and Japanese) learning atmosphere

#### Role in the Proposed University

Upon establishment of R-DTBU:

- Ramachandra College of Engineering shall be **subsumed as the School of Engineering and Technology, School of Computing and School of Management**.
- Existing programmes shall be **restructured, NEP-aligned and expanded**
- The College shall serve as the **engineering anchor** for multidisciplinary growth

This transition ensures **continuity, stability and academic depth**, avoiding the risks of a greenfield university model.

#### 4.2 Proposed Schools under the University

The proposed Ramachandra Deemed to be University shall adopt a **School-based academic structure**, as recommended under **NEP-2020**, to promote:

- Multidisciplinarity
- Academic autonomy
- Inter-school collaboration
- Flexible learning pathways

Each School shall function with:

- Dean-led academic governance
- School-level Boards of Studies
- Strong industry, research and community linkage

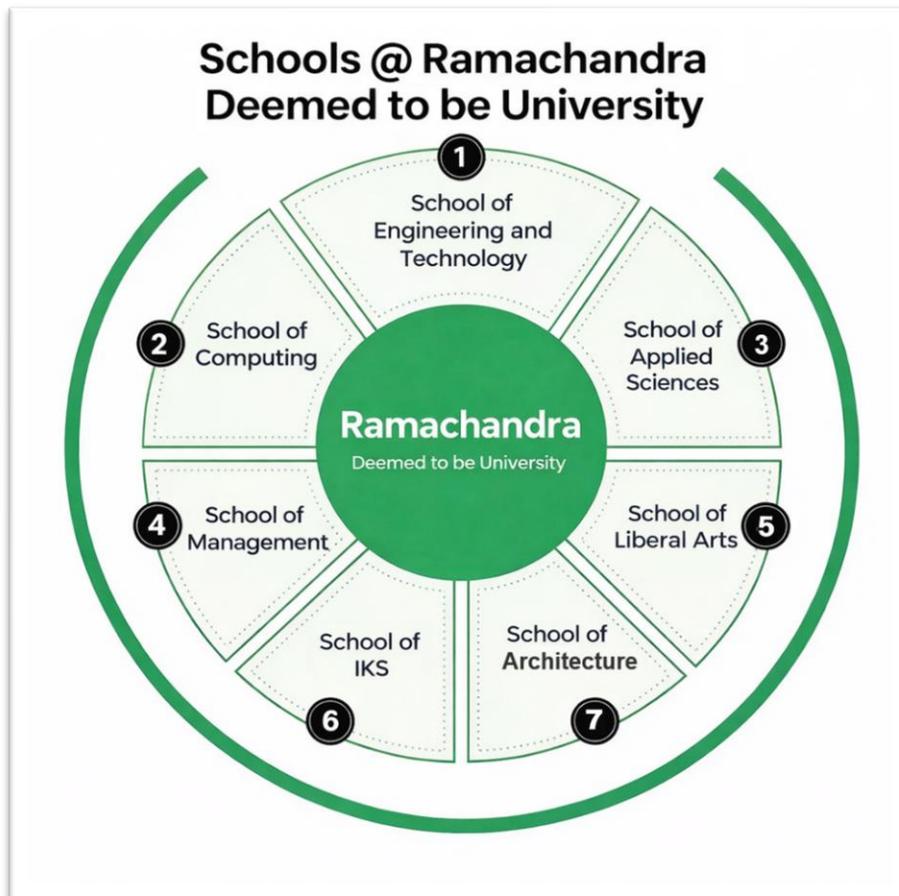


Figure 4.1: Proposed Schools under Ramachandra Deemed to be University

#### 4.2.1 School of Engineering and Technology

##### Academic Focus

The School shall focus on **core engineering disciplines and emerging technologies**, with strong integration of:

- Industry-aligned curricula
- Applied research and innovation
- Advanced laboratories and skill platforms

### Academic Thrust

- Semiconductor and electronics systems
- Robotics, automation and intelligent manufacturing
- Embedded systems and advanced engineering solutions

### Role in Distinct Category

This School forms the **foundational strength** of R-DTBU, enabling **engineering-rooted multidisciplinary expansion** and high-impact applied research.

**Table 4.1: Existing Programmes under School of Engineering and Technology**

Sl. No	Programme	Duration (Years)	Year of Introduction	Sanctioned Intake
1	B.Tech. Civil Engineering	4	2014	60
2	B.Tech. Mechanical Engineering	4	2011	60
3	B.Tech. Electrical and Electronics Engineering	4	2008	60
4	B.Tech. Electronics and Communication Engineering	4	2008	180
5	M.Tech. Power Electronics	2	2012	6
6	M.Tech. VLSI	2	2012	6
7	M.Tech. Machine Design	2	2014	6
Total Intake				378

**Table 4.2: Proposed Programmes and Mapping with Distinct Category under School of Engineering and Technology**

Sl. No	Level	Programme Name	Duration (Years)	Intake	Year of Introduction	Category*	Academic Focus
1	UG	B.Tech – Semiconductor Technology & Chip Design	4	60	2027-28	I	Semiconductor or manufacturing, VLSI, chip design
2	PG	M.Tech – Embedded Systems for Automotive & Defence Electronics	2	24	2029-30	I	Embedded electronics, defence & automotive systems
3	Integrated UG-PG	B.Tech–M.Tech – Robotics, Automation &	5	60	2029-30	M	Robotics, Industry

		Intelligent Manufacturing					4.0/5.0, automation
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\* **D** – Distinct, **I** – Industry-Supported, **M** – Multidisciplinary, **T** – Transdisciplinary

#### 4.2.2 School of Computing

##### Academic Focus

The School of Computing shall address the **digital and computational core** of the University, supporting all other Schools.

##### Academic Thrust

- Artificial Intelligence and Data Analytics
- Cyber systems and forensic sciences
- Quantum computing and advanced computational models

##### Strategic Importance

- Enables interdisciplinary programmes across engineering, sciences, management and humanities
- Supports data-driven research, governance and innovation ecosystems
- Aligns with national digital and emerging technology missions

**Table 4.3: Existing Programmes under School of Computing**

Sl. No	Programme	Duration (Years)	Year of Introduction	Sanctioned Intake
1	B.Tech. Computer Science and Engineering	4	2008	180
2	B.Tech. Computer Science and Engineering - IoT	4	2020	60
3	B.Tech. Computer Science and Engineering – Cyber Security	4	2020	60
4	B.Tech. Computer Science and Engineering – AIML	4	2022	120
5	B.Tech. Artificial Intelligence and Data Science	4	2020	120
6	M.Tech. Computer Science and Engineering	2	2012	18
7	M.Tech. Artificial Intelligence and Data Science	2	2023	18
Total Intake				576

**Table 4.4: Proposed Programmes and Mapping with Distinct Category under School of Computing**

Sl. No	Level	Programme Name	Duration (Years)	Intake	Year of Introduction	Category*	Academic Focus
1	UG	B.Tech – Quantum Computing	4	60	2027-28	I	Quantum algorithms, quantum hardware & software
2	UG	B.Sc – Artificial Intelligence & Data Analytics	3	60	2028-29	T	AI, ML, data analytics
3	UG	B.Sc – Cyber Systems & Forensic Sciences	3	60	2028-29	T	Cybersecurity, digital forensics
4	PG (Research)	M.Sc (Research) – Foundation Models & Domain-Specific LLMs	2	10	2029-30	I	Advanced AI, generative models

\* **D** – Distinct, **I** – Industry-Supported, **M** – Multidisciplinary, **T** – Transdisciplinary

### 4.2.3 School of Applied Sciences

#### Academic Focus

The School shall strengthen the **scientific foundations** required for engineering, computing, sustainability and technology innovation.

#### Academic Thrust

- Semiconductor devices and nano-electronics
- Robotronics and intelligent systems
- Sustainable technologies and climate systems

#### Role

- Acts as a **research feeder School**
- Supports multidisciplinary scientific inquiry
- Promotes science-driven innovation and sustainability research

**Table 4.5: Proposed Programmes and Mapping with Distinct Category under School of Applied Sciences**

Sl. No	Level	Programme Name	Duration (Years)	Intake	Year of Introduction	Category*	Academic Focus
1	UG	B.Sc – Semiconductor Devices & Nano-Electronics	3	60	2028-29	I	Nano-electronics, semiconductor or physics
2	UG	B.Sc – Robotronics	3	60	2029-30	I	Robotics + electronics + computing
3	UG	B.Sc – Sustainable Technology & Climate Systems	3	60	2029-30	I	Climate science, sustainability, green tech

\* **D** – Distinct, **I** – Industry-Supported, **M** – Multidisciplinary, **T** – Transdisciplinary

#### 4.2.4 School of Management

##### Academic Focus

The School of Management shall nurture **entrepreneurial, managerial and analytical leadership** aligned with India's startup and innovation ecosystem.

##### Academic Thrust

- Entrepreneurship and startup development
- Digital commerce and financial technologies
- Startup analytics, case research and innovation management

##### Distinctive Orientation

- Strong linkage with incubation and innovation centres
- Integration of management education with technology and societal needs
- Focus on **entrepreneurship over conventional management education**

**Table 4.6: Existing Programmes under School of Management**

Sl. No	Programme	Duration (Years)	Year of Introduction	Sanctioned Intake
1	BBA - Bachelor of Business Administration	3	2024	60
2	MBA- Master of Business Administration	2	2009	120
Total Intake				180

**Table 4.7: Proposed Programmes and Mapping with Distinct Category under School of Maangement**

Sl. No	Level	Programme Name	Duration (Years)	Intake	Year of Introduction	Category*	Academic Focus
1	UG	BBA (Hons.) – Entrepreneurship & Start-ups	4	60	2028-29	M	Startup creation, innovation
2	PG	MBA – Start-up Failure Analytics & Case Research	2	60	2029-30	T	Startup analytics, research-based MBA
3	UG	B.Com – Digital Commerce & Financial Technologies	3	60	2027-28	M	FinTech, digital finance
4	UG	B.Voc – Aquaculture Operations & Farm Management	3	60	2030-31	D	Agri-business, aquaculture

\* **D** – Distinct, **I** – Industry-Supported, **M** – Multidisciplinary, **T** – Transdisciplinary

#### 4.2.5 School of Liberal Arts

##### Academic Focus

The School of Liberal Arts shall promote **holistic education**, integrating humanities, social sciences, creativity and human behaviour studies.

##### Academic Thrust

- Psychology, cognitive science and mental health
- Digital fashion and creative industries
- Interior design and smart systems

##### NEP Alignment

- Encourages critical thinking, communication, ethics and creativity
- Supports interdisciplinary learning across technology and society
- Enhances graduate attributes beyond technical competence

**Table 4.8: Proposed Programmes and Mapping with Distinct Category under School of Liberal Arts**

Sl. No	Level	Programme Name	Duration (Years)	Intake	Year of Introduction	Category*	Academic Focus
1	UG	B.A – Psychology, Cognitive Science & Mental Health	3	60	2030-31	D	Psychology, cognition, wellness
2	UG	B.A – Fashion Designing (Digital Fashion)	3	60	2029-30	D	Fashion tech, creative industries
3	Integrated UG-PG	Interior Designing & Smart Systems	4	60	2030-31	D	Design + smart systems

\* **D** – Distinct, **I** – Industry-Supported, **M** – Multidisciplinary, **T** – Transdisciplinary

#### 4.2.6 School of Indian Knowledge Systems (IKS)

##### Academic Focus

The School of IKS shall institutionalise the **integration of Indian knowledge traditions** into modern higher education.

##### Academic Thrust

- Yoga and life sciences
- Indian philosophical, ethical and wellness traditions
- Indigenous knowledge aligned with sustainability and well-being

##### Distinct Category Strength

- Acts as a **cultural and ethical differentiator**
- Aligns strongly with **NEP-2020's IKS mandate**
- Bridges tradition with contemporary scientific understanding

**Table 4.9: Proposed Programmes and Mapping with Distinct Category under School of IKS**

Sl. No	Level	Programme Name	Duration (Years)	Intake	Year of Introduction	Category*	Academic Focus
1	UG	B.A – Yoga & Life Sciences	3	60	2030-31	D	Yoga, wellness, Indian life sciences

\* **D** – Distinct, **I** – Industry-Supported, **M** – Multidisciplinary, **T** – Transdisciplinary

#### 4.2.7 School of Architecture

##### Academic Focus

The School of Architecture shall offer **integrated design-oriented education**, blending architecture, engineering, sustainability and smart systems.

##### Academic Thrust

- Integrated Architecture & Engineering
- Sustainable built environment
- Smart and resilient infrastructure systems

##### Long-Term Orientation

- Phased introduction aligned with infrastructure readiness
- Strong interdisciplinary collaboration with engineering and applied sciences
- Contribution to sustainable urban and rural development

**Table 4.10: Proposed Programmes and Mapping with Distinct Category under School of Architecture**

Sl. No	Level	Programme Name	Duration (Years)	Intake	Year of Introduction	Category*	Academic Focus
1	Integrated UG-PG	Integrated Architecture & Engineering (B.Arch–M.Arch)	6	40	2031-32	D	Architecture, engineering, sustainability

\* **D** – Distinct, **I** – Industry-Supported, **M** – Multidisciplinary, **T** – Transdisciplinary

### 4.3 Interdisciplinary and Collaborative Initiatives

A defining feature of Ramachandra Deemed to be University is its **institutionalised interdisciplinarity / multidisciplinary / transdisciplinary**, enabled through:

#### Inter-School Collaboration

- Joint degree pathways and minors
- Shared laboratories and research facilities
- Multidisciplinary capstone projects

#### Research and Innovation Platforms

- Centres of Excellence cutting across Schools
- Industry-supported innovation and incubation
- Community-centric applied research initiatives

### Academic Flexibility

- NEP-aligned credit mobility across Schools
- Multiple entry–exit options
- Academic Bank of Credits (ABC) implementation

### Societal and Industry Engagement

- Industry-Supported programmes
- Community-based learning and research
- National and global academic collaborations

The proposed School structure of Ramachandra Deemed to be University represents a **coherent, future-ready and NEP-compliant academic architecture**, rooted in engineering excellence and expanded through computing, sciences, management, liberal arts, Indian Knowledge Systems and architecture.

This structure:

- Demonstrates **Distinct Category differentiation**
- Enables **multidisciplinary and transdisciplinary education**
- Supports **research, innovation and societal impact**
- Ensures long-term academic sustainability and relevance



*“Ramachandra Deemed to be University commits to functioning as a socially responsible institution that integrates academic excellence with ethical values, inclusivity, sustainability and community engagement, thereby contributing to regional development, national progress and global sustainability.”*

## Chapter-5

### ACADEMIC PLAN



*“The Academic Plan of Ramachandra Deemed to be University shall be implemented through a multidisciplinary, NEP-2020 aligned framework that integrates flexible curricula, research-embedded learning, skill development, industry linkage and technology-enabled pedagogy to ensure academic excellence, employability and societal relevance.”*

#### 5.1 Strategic Academic Vision

The academic plan of **Ramachandra Deemed to be University (R-DTBU)** is anchored in a **long-term strategic vision** that integrates **multidisciplinary education, research excellence, innovation, inclusivity and societal relevance**. The University’s academic planning framework is designed to ensure **quality, flexibility, scalability and sustainability**, consistent with the objectives of the **National Education Policy (NEP) 2020**.

The Strategic Academic Vision seeks to:

- Transform the institution from a **discipline-centric college model** into a **multidisciplinary, research-oriented university**
- Enable **academic autonomy** for curriculum design and innovation
- Foster **interdisciplinary learning and research ecosystems**
- Align academic outcomes with **national priorities, regional needs and global standards**

Academic planning at R-DTBU is not static; it is envisioned as a **dynamic and responsive process**, periodically reviewed through statutory bodies such as the Academic Council, Boards of Studies and Research Council.

##### 5.1.1 Expansion in Multidisciplinary Education

###### Policy Context

NEP 2020 identifies **multidisciplinary education** as the cornerstone of higher education reform, advocating the dismantling of rigid disciplinary boundaries and the creation of **holistic, flexible learning pathways**. R-DTBU adopts this mandate as a **core academic principle**.

###### Multidisciplinary Academic Architecture

The University shall implement a **School-based academic structure** enabling:

- Vertical integration (UG–PG–Research)
- Horizontal integration (across Schools)
- Flexible combinations of majors, minors, electives and skill modules

Each School shall collaborate with others to offer **interdisciplinary / multidisciplinary / transdisciplinary programmes, shared courses and joint research initiatives**.

## Key Strategies for Multidisciplinary Expansion

### a) Inter-School Curriculum Design

- Cross-listed courses across Engineering, Computing, Sciences, Management, Liberal Arts, IKS and Architecture
- Interdisciplinary project-based learning and capstone projects

### b) Flexible Degree Pathways

- Multiple entry–exit options with certification
- Academic Bank of Credits (ABC) enabling credit transfer and accumulation

### c) Integration of Liberal Arts and IKS

- Mandatory exposure to humanities, ethics, Indian Knowledge Systems and sustainability across programmes
- Development of well-rounded graduates with technical competence and societal awareness

### d) Industry and Societal Relevance

- Multidisciplinary programmes aligned with emerging sectors such as semiconductors, AI, sustainability, entrepreneurship, wellness and smart infrastructure

### e) Foreign Languages and Collaborations

- Foreign languages including German and Japanese exposure for global collaborations, twinning programmes and joint degrees

Through this approach, R-DTBU aims to:

- Enhance intellectual flexibility and employability
- Promote innovation through cross-disciplinary thinking
- Create graduates capable of addressing complex real-world challenges

## 5.1.2 Roadmap for Research and Innovation Hubs

### Research Vision

R-DTBU envisions research as a **central pillar of academic excellence**, moving beyond a teaching-centric model to a **research-enabled and innovation-driven university**. The research roadmap aligns with:

- NEP 2020 emphasis on research integration
- National development missions
- Regional and societal challenges

## Phased Development of Research and Innovation Hubs

### Phase I: Research Readiness and Capacity Building

- Establishment of a **University Research Council** with the existing Research Centre approvals of JNTU-K for EEE, ECE and CSE.
- Identification of thrust areas aligned with Schools
- Faculty capacity building and research mentoring
- Promotion of UG and PG research culture

### Phase II: Centres of Excellence and Interdisciplinary Hubs

- Creation of **Research and Innovation Hubs** in priority domains such as:
  - Semiconductor and advanced electronics
  - Artificial intelligence, data science and cyber systems
  - Sustainable technologies and climate systems
  - Robotics, automation and intelligent manufacturing
  - Entrepreneurship, startup analytics and innovation management
  - Indian Knowledge Systems and wellness sciences
- Inter-School and inter-institutional collaboration
- Industry-supported research and sponsored projects

### Phase III: Translation, Innovation and Societal Impact

- Incubation and startup support for faculty and students
- Technology transfer and intellectual property creation
- Community-centric applied research and policy engagement
- Alignment with national research funding mechanisms

## Innovation Ecosystem

The University shall establish a **comprehensive innovation ecosystem** comprising:

- Innovation and Incubation Centre
- Industry collaboration platforms
- Startup mentoring and funding facilitation
- Student and faculty entrepreneurship programmes

Through the proposed roadmap, R-DTBU aims to:

- Increase high-quality research publications and funded projects
- Promote patents, prototypes and startups
- Address regional and national challenges through applied research
- Build a sustainable and inclusive research culture

## 5.2 Proposed Distinct and Multidisciplinary Programmes – Undergraduate, Postgraduate, Integrated and Research Programmes

The proposed academic programmes (in addition to the existing programmes offered in Ramachandra College of Engineering) of **Ramachandra Deemed to be University (R-DTBU)** are designed as **Distinct (D), Industry-Supported (I), Multidisciplinary (M) and Transdisciplinary (T)** offerings, in line with the **National Education Policy (NEP) 2020** and the **UGC Clause-7 Distinct Category framework**.

The programme portfolio reflects:

- Emerging national and global skill requirements
- Regional economic and societal needs
- Strong interdisciplinary integration across Schools
- Phased and sustainable academic expansion

### Undergraduate Programmes (13)

- 4-Year B.Tech. in Semiconductor Technology & Chip Design
- 4-Year B.Tech. in Quantum Computing
- 3-Year BSc in Semiconductor Devices & Nano-Electronics
- 3-Year BSc in Robotronics
- 3-Year BSc in Sustainable Technology & Climate Systems
- 3-Year BSc in Artificial Intelligence & Data Analytics
- 3-Year BSc in Cyber Systems & Forensic Sciences
- 3-Year BCom in Digital Commerce & Financial Technologies
- 3-Year BVoc in Aquaculture Operations & Farm Management
- 3-Year BA in Psychology, Cognitive Science & Mental Health
- 3-Year BA in Fashion Designing - Digital Fashion
- 3-Year BA in Yoga & Life Sciences
- 4-Year BBA (Hons) in Entrepreneurship & Start-ups

### Postgraduate Programmes (2)

- 2-Year M.Tech. in Embedded Systems for Automotive & Defence Electronics
- 2-Year MBA in Start-up Failure Analytics & Case Research

### Research Programmes (1)

- 2-Year MSc (Research) in Foundation Models & Domain-Specific LLMs

### Integrated Programmes (3)

- 5-Year Integrated B.Tech.-M.Tech. in Robotics, Automation & Intelligent Manufacturing
- 4-Year Integrated BA-MA in Interior Designing & Smart Systems
- 6-Year Integrated BArch-MArch in Integrated Architecture & Engineering
- Ph.D. programmes in Engineering and Technology, Management and Social Sciences

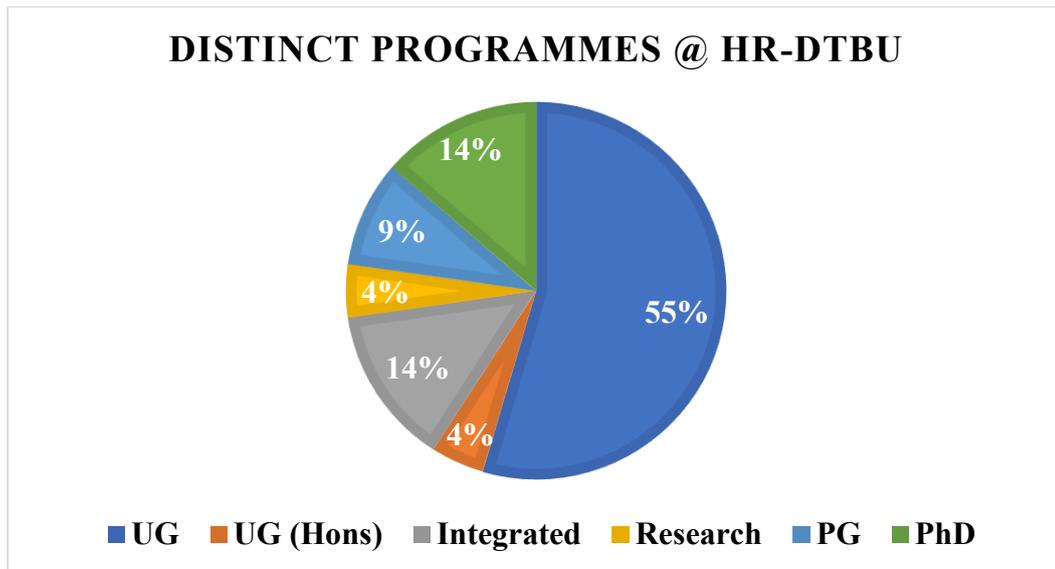


Figure 5.1: Percentage of different category of distinct programmes under the proposed DTBU

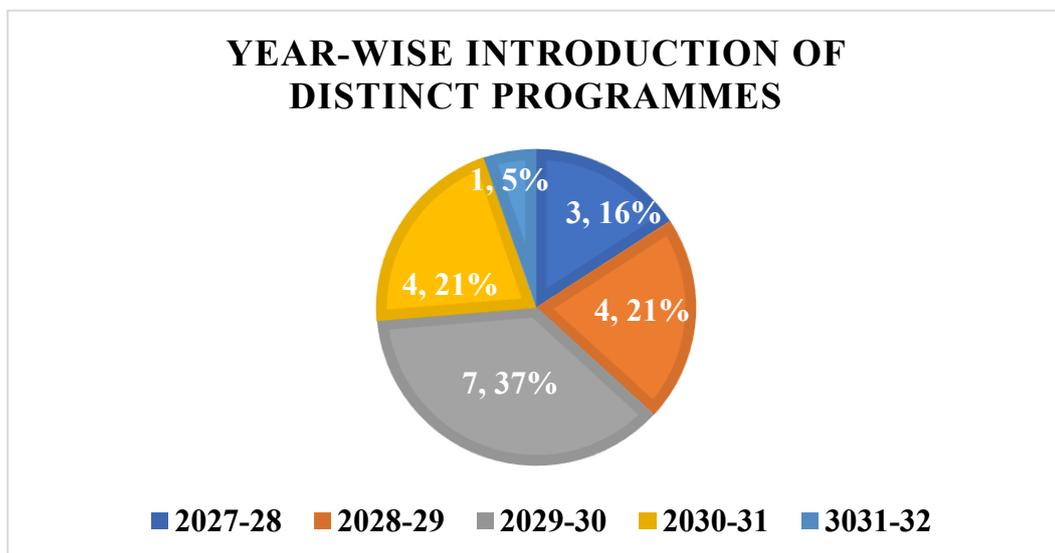


Figure 5.2: Year-wise introduction of the proposed distinct programmes under the DTBU

The curriculum of the existing programmes offered at Ramachandra College of Engineering are provided in **Annexure 21.2**. The curriculum and syllabus of the proposed unique and distinct programmes are provided in **Annexure 21.3 and 21.4**.

### 5.2.1 Undergraduate Programmes

The undergraduate programmes are designed to provide **strong disciplinary foundations combined with multidisciplinary exposure**, skill integration and experiential learning.

#### Key Features

- Choice-based credit system with **majors, minors and electives**
- Embedded internships, projects and skill modules

- Integration of **Liberal Arts, IKS, ethics and sustainability**

### **Representative UG Programme Domains**

- Semiconductor technology and nano-electronics
- Artificial intelligence, data analytics and cyber systems
- Robotics, robotronics and sustainable technologies
- Digital commerce, entrepreneurship and aquaculture management
- Psychology, design, fashion technology, wellness and IKS

These programmes enable early exposure to **research, innovation and entrepreneurship**, enhancing employability and lifelong learning pathways.

### **5.2.2 Postgraduate Programmes**

Postgraduate programmes at R-DTBU emphasise **advanced knowledge, applied research and industry relevance**.

#### **Key Features**

- Research-oriented coursework
- Industry-linked projects and case studies
- Advanced laboratories and research facilities

### **Representative PG Programme Domains**

- Embedded systems for automotive and defence electronics
- Startup failure analytics and case research
- Foundation models and domain-specific large language models (LLMs)

These programmes aim to develop **specialised professionals, researchers and academic leaders** aligned with emerging sectors.

### **5.2.3 Integrated Undergraduate–Postgraduate Programmes**

Integrated programmes provide **seamless academic progression**, reducing time-to-degree while enhancing depth and interdisciplinary exposure.

#### **Key Features**

- Continuous UG–PG curriculum design
- Strong research and innovation orientation
- Early exposure to advanced tools and technologies

### **Representative Integrated Domains**

- Robotics, automation and intelligent manufacturing
- Interior designing and smart systems
- Architecture and engineering integration

These programmes support **NEP-2020's vision of flexible, holistic education** and attract high-potential students seeking accelerated academic pathways.

#### 5.2.4 Research and Research-Integrated Programmes

R-DTBU places strong emphasis on **research-led education**, integrating research even at the undergraduate level.

##### Key Features

- M.Sc. (Research) and future Ph.D. programmes
- Interdisciplinary research clusters and Centres of Excellence
- Alignment with national research priorities and funding agencies

##### Research programmes focus on:

- Artificial intelligence and advanced computing
- Semiconductors and advanced electronics
- Sustainability and climate systems
- Indian Knowledge Systems and wellness sciences

##### Distinctiveness of the Programme Portfolio

The proposed programmes:

- Go beyond conventional degree offerings
- Demonstrate **clear differentiation under Clause-7**
- Integrate **industry, research and societal relevance**
- Are phased to ensure **academic quality and sustainability**

### 5.3 Industries Identified for Industry-Support of the Proposed Programmes

Industry integration is a **core academic strategy** of Ramachandra Deemed to be University. The University has identified **sector-specific industries** to support curriculum design, internships, projects, laboratories, research and placements.

Industry engagement is structured to ensure **long-term academic relevance and employability**, rather than ad-hoc collaboration.

#### 5.3.1 Sector-Wise Industry Identification

##### a) Semiconductor, Electronics and Embedded Systems

###### Industry Support Focus

- Curriculum co-design
- Semiconductor and electronics labs
- Internships and sponsored projects

### **Indicative Industry Sectors**

- Semiconductor fabrication and design
- Embedded electronics and system integration
- Defence and automotive electronics

### **b) Computing, AI, Data and Cyber Systems**

#### **Industry Support Focus**

- AI and data science platforms
- Cybersecurity and forensic labs
- Industry-led certifications

#### **Indicative Industry Sectors**

- AI and analytics firms
- Cybersecurity solution providers
- Cloud and digital technology companies

### **c) Robotics, Automation and Manufacturing**

#### **Industry Support Focus**

- Robotics and automation labs
- Industry 4.0 / 5.0 exposure
- Smart manufacturing projects

#### **Indicative Industry Sectors**

- Industrial automation
- Robotics system integrators
- Manufacturing technology firms

### **d) Management, Entrepreneurship and Digital Commerce**

#### **Industry Support Focus**

- Startup incubation and mentoring
- Live business projects and case research
- FinTech and digital commerce exposure

#### **Indicative Industry Sectors**

- Startups and incubators
- FinTech and digital platforms
- MSMEs and enterprise networks

## **e) Sustainability, Climate and Applied Sciences**

### **Industry Support Focus**

- Sustainable technology projects
- Climate and environmental analytics
- Green technology solutions

### **Indicative Industry Sectors**

- Renewable energy
- Environmental consulting
- Sustainable technology enterprises

## **f) Liberal Arts, Design and Creative Industries**

### **Industry Support Focus**

- Design studios and creative labs
- Industry mentors and practitioners
- Portfolio and project-based learning

### **Indicative Industry Sectors**

- Fashion and design studios
- Interior design and creative firms
- Media and digital content enterprises

## **g) Indian Knowledge Systems, Wellness and Community Sectors**

### **Industry / Practice Support Focus**

- Wellness, yoga and health practices
- Indigenous and traditional knowledge documentation
- Community-based projects

### **Indicative Sectors**

- Wellness and health organisations
- NGOs and community institutions
- Traditional knowledge practitioners

**Table 5.1: Industries identified for Academic Support**

<b>Sector</b>	<b>Industry Partners / Collaborators (Proposed)</b>
Semiconductor Technology	Polymatech, pSemi, Tessolve, AMD
Embedded AI	Wipro, ABB, AMD
Industrial Automation & Engineering	AVEVA India, Siemens Digital Industries, Bentley Systems, Tessolve, RobotSpace
Quantum Computing	Qulabs & Quinfosys Pvt Ltd
AI & Data Analytics	IBM, CTS, TCS Research, Infosys
Entrepreneurship & Start-ups Ecosystem	Startup Andhra Pradesh andhra Pradesh Innovation Society
Aquaculture Operations & Farm Management	Andhra Pradesh Fisheries Department, Avanti Feeds, Central Institute of Brackishwater Aquaculture

### 5.3.2 Modes of Industry Engagement

Industry support shall be institutionalised through:

- MoUs and long-term partnerships
- Industry advisory boards at School level
- Co-developed laboratories and centres
- Internships, apprenticeships and live projects
- Sponsored research and innovation initiatives

### Programme–Industry Mapping Tables

**Table 5.2: School of Engineering & Technology – Programme–Industry Mapping**

<b>Programme</b>	<b>Key Industry Sectors</b>	<b>Nature of Industry Support</b>	<b>Expected Career Pathways</b>
B.Tech – Semiconductor Technology & Chip Design	Semiconductor fabrication, chip design, electronics manufacturing	Curriculum co-design, VLSI labs, internships, sponsored projects	Chip Design Engineer, Process Engineer
M.Tech – Embedded Systems for Automotive & Defence Electronics	Automotive electronics, defence systems, embedded solutions	Advanced labs, live defence/auto projects, internships	Embedded Systems Specialist

Integrated B.Tech– M.Tech – Robotics, Automation & Intelligent Manufacturing	Industrial automation, robotics, smart manufacturing	Robotics labs, Industry 4.0 projects, long-term internships	Robotics Engineer, Automation Architect
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**Distinct Strength:** Alignment with India’s Semiconductor & Advanced Manufacturing Missions.

**Table 5.3: School of Computing – Programme–Industry Mapping**

<b>Programme</b>	<b>Key Industry Sectors</b>	<b>Nature of Industry Support</b>	<b>Expected Career Pathways</b>
B.Tech – Quantum Computing	Deep-tech, quantum software, research labs	Quantum simulators, research internships	Quantum Computing Engineer
B.Sc – Artificial Intelligence & Data Analytics	AI services, analytics firms, digital platforms	AI labs, live analytics projects	Data Scientist, AI Engineer
B.Sc – Cyber Systems & Forensic Sciences	Cybersecurity, digital forensics, law enforcement tech	Cyber labs, forensic case studies	Cyber Analyst, Forensic Expert
M.Sc (Research) – Foundation Models & Domain-Specific LLMs	AI R&D, product companies, research labs	LLM labs, sponsored research	AI Researcher, Model Engineer

**Distinct Strength:** Advanced AI & quantum programmes promote in rural region.

**Table 5.4: School of Applied Sciences – Programme–Industry Mapping**

<b>Programme</b>	<b>Key Industry Sectors</b>	<b>Nature of Industry Support</b>	<b>Expected Career Pathways</b>
B.Sc – Semiconductor Devices & Nano-Electronics	Semiconductor materials, nano-tech firms	Device labs, R&D internships	Device Technologist
B.Sc – Robotronics	Robotics integrators, automation firms	Robotics labs, industrial projects	Robotronics Specialist
B.Sc – Sustainable Technology & Climate Systems	Renewable energy, climate consultancies	Field projects, sustainability labs	Sustainability Analyst

**Distinct Strength:** Science programmes directly feeding engineering & sustainability sectors.

**Table 5.5: School of Management – Programme–Industry Mapping**

<b>Programme</b>	<b>Key Industry Sectors</b>	<b>Nature of Industry Support</b>	<b>Expected Career Pathways</b>
BBA (Hons.) – Entrepreneurship & Start-ups	Start-ups, incubators, MSMEs	Incubation, mentoring, live ventures	Entrepreneur, Startup Manager

MBA – Start-up Failure Analytics & Case Research	Venture capital, accelerators, analytics firms	Case research, data analytics	Business Analyst, VC Associate
B.Com – Digital Commerce & FinTech	FinTech firms, digital commerce platforms	FinTech labs, internships	FinTech Executive
B.Voc – Aquaculture Operations & Farm Management	Aquaculture farms, agri-business firms	Farm internships, field labs	Aquaculture Manager

**Distinct Strength:** Management education rooted in **entrepreneurship and regional economy**.

**Table 5.6: School of Liberal Arts – Programme–Industry Mapping**

<b>Programme</b>	<b>Key Industry Sectors</b>	<b>Nature of Industry Support</b>	<b>Expected Career Pathways</b>
B.A – Psychology, Cognitive Science & Mental Health	Wellness centres, NGOs, counselling practices	Clinical exposure, internships	Counsellor Assistant
B.A – Fashion Designing (Digital Fashion)	Fashion houses, digital design studios	Design studios, portfolio projects	Fashion Technologist
Integrated Interior Designing & Smart Systems	Interior design, smart space firms	Design studios, live projects	Interior Designer

**Distinct Strength:** Liberal Arts integrated with **technology, wellness and design**.

**Table 5.7: School of IKS – Programme–Industry / Practice Mapping**

<b>Programme</b>	<b>Key Industry Sectors</b>	<b>Nature of Industry Support</b>	<b>Expected Career Pathways</b>
B.A – Yoga & Life Sciences	Wellness centres, yoga institutions, NGOs	Practice-based learning, community internships	Yoga Instructor, Wellness Facilitator

**Distinct Strength:** NEP-mandated IKS integration with employability.

**Table 5.8: School of Architecture – Programme–Industry Mapping**

<b>Programme</b>	<b>Key Industry Sectors</b>	<b>Nature of Industry Support</b>	<b>Expected Career Pathways</b>
Integrated B.Arch–M.Arch – Architecture & Engineering	Architecture firms, infrastructure companies	Studio projects, mandatory internships	Architect, Design Consultant

**Distinct Strength:** Architecture blended with engineering and sustainability.

## 5.4 Employability, Skill Development and Industry Linkages

Employability and skill development constitute a **core academic priority** of Ramachandra Deemed to be University. In alignment with **NEP 2020**, the University adopts a **skill-embedded education model**, ensuring that every learner acquires **domain knowledge, practical competence, industry exposure and professional readiness**.

The employability framework is built on three integrated pillars:

- **Skill Laboratories**
- **Structured Internships**
- **Institutionalised Industry Partnerships**

### 5.4.1 Skill Development Framework and Skill Laboratories

R-DTBU shall establish **School-specific and shared Skill Laboratories** to support hands-on learning, competency development and experiential education.

#### Key Features

- Discipline-specific and interdisciplinary skill labs
- Alignment with emerging industry requirements
- Practice-oriented learning beyond classroom instruction

#### Indicative Skill Lab Domains

- Semiconductor fabrication and electronics labs
- AI, data analytics, cyber security and quantum computing labs
- Robotics, automation and intelligent manufacturing labs
- FinTech, digital commerce and entrepreneurship labs
- Design studios, creative labs and wellness skill centres

Skill labs will be **credit-integrated**, ensuring formal academic recognition of skill acquisition.

### 5.4.2 Internships and Experiential Learning

Internships shall be an **integral and mandatory component** of all undergraduate, postgraduate and integrated programmes.

#### Internship Structure

- Multiple internship windows across the programme duration
- Progressive exposure from observation to applied problem-solving
- Industry, startup, research lab and community-based internships

#### Learning Outcomes

- Workplace readiness and professional competence
- Application of theoretical knowledge to real-world contexts
- Enhanced employability and career clarity

Internships shall be assessed and credited as part of the **academic evaluation framework**.

### 5.4.3 Industry Partnerships and Employability Ecosystem

Industry linkages at R-DTBU are **institutionalised**, not incidental.

#### Partnership Strategy

- Curriculum co-design and advisory roles
- Industry-supported laboratories and centres
- Guest lectures and adjunct faculty from industry
- Sponsored projects, research and consultancy
- Placement and recruitment collaboration

Each School shall have an **Industry Advisory Board**, ensuring continuous relevance and alignment with workforce needs.

#### Employability & Industry Linkage Mapping Tables

**Table 5.9: School of Engineering & Technology – Employability & Industry Mapping**

<b>Programme</b>	<b>Skill Labs / Facilities</b>	<b>Internship Structure</b>	<b>Industry Support Areas</b>	<b>Employability Outcomes</b>
B.Tech – Semiconductor Technology & Chip Design	Semiconductor devices lab, VLSI & chip design lab	2–3 staged internships (design → fabrication → testing)	Semiconductor fabs, design houses, electronics firms	Chip design engineer, semiconductor process engineer
M.Tech – Embedded Systems for Automotive & Defence	Embedded systems & defence electronics lab	Industry / defence lab internship + project	Automotive electronics, defence OEMs	Embedded systems specialist
Integrated B.Tech–M.Tech – Robotics & Intelligent Manufacturing	Robotics, automation & Industry 4.0 labs	Continuous industry-linked internships	Automation firms, smart manufacturing units	Robotics engineer, automation specialist

**Table 5.10: School of Computing – Employability & Industry Mapping**

<b>Programme</b>	<b>Skill Labs</b>	<b>Internship Model</b>	<b>Industry Linkages</b>	<b>Employability Outcomes</b>
B.Tech – Quantum Computing	Quantum simulation & computing lab	Research + industry internship	Deep-tech firms, research labs	Quantum software / research engineer
B.Sc – AI & Data Analytics	AI, ML & analytics labs	Industry analytics projects	AI firms, analytics companies	Data analyst, AI engineer

B.Sc – Cyber Systems & Forensic Sciences	Cybersecurity & digital forensics lab	Security audit / forensic internship	Cybersecurity firms, law enforcement	Cyber analyst, forensic expert
M.Sc (Research) – Foundation Models & LLMs	Advanced AI & LLM lab	Research + industry collaboration	AI research labs, product firms	AI researcher, model engineer

**Table 5.11: School of Applied Sciences – Employability & Industry Mapping**

<b>Programme</b>	<b>Skill / Research Labs</b>	<b>Internship Exposure</b>	<b>Industry / Sector Linkage</b>	<b>Employability Outcomes</b>
B.Sc – Semiconductor Devices & Nano-Electronics	Nano-electronics & materials lab	R&D / industry internship	Semiconductor & materials firms	Device technologist
B.Sc – Robotronics	Robotics & electronics lab	Industry automation internship	Robotics integrators	Robotronics technologist
B.Sc – Sustainable Technology & Climate Systems	Climate analytics & sustainability lab	Field & industry internship	Renewable energy, climate consultancies	Sustainability analyst

**Table 5.12: School of Management – Employability & Industry Mapping**

<b>Programme</b>	<b>Skill Labs / Platforms</b>	<b>Internship Model</b>	<b>Industry / Ecosystem Linkage</b>	<b>Employability Outcomes</b>
BBA (Hons.) – Entrepreneurship & Start-ups	Startup & innovation lab	Startup incubation internship	Incubators, startups	Entrepreneur, startup manager
MBA – Start-up Failure Analytics & Case Research	Business analytics & case lab	Live startup case research	Venture firms, accelerators	Business analyst, research consultant
B.Com – Digital Commerce & FinTech	FinTech & digital commerce lab	FinTech / e-commerce internship	FinTech firms, digital platforms	FinTech executive
B.Voc – Aquaculture Operations & Farm Management	Aquaculture & farm ops lab	Farm-based internship	Aquaculture farms, agri-firms	Farm manager, agri-entrepreneur
Programme	Skill Labs / Platforms	Internship Model	Industry / Ecosystem Linkage	Employability Outcomes

**Table 5.13: School of Liberal Arts – Employability & Industry Mapping**

<b>Programme</b>	<b>Studios / Labs</b>	<b>Internship Type</b>	<b>Industry / Practice Linkage</b>	<b>Employability Outcomes</b>
B.A – Psychology, Cognitive Science & Mental Health	Psychology & behaviour lab	Clinical / wellness internship	Clinics, NGOs, wellness centres	Counsellor assistant, wellness associate
B.A – Fashion Designing (Digital Fashion)	Digital fashion & design studio	Design studio internship	Fashion houses, design firms	Fashion technologist
Integrated Interior Designing & Smart Systems	Design & smart systems studio	Architecture / design firm internship	Interior & smart design firms	Interior designer
Programme	Studios / Labs	Internship Type	Industry / Practice Linkage	Employability Outcomes

**Table 5.14: School of Indian Knowledge Systems – Employability Mapping**

<b>Programme</b>	<b>Practice Facilities</b>	<b>Internship / Practice</b>	<b>Sector Linkage</b>	<b>Employability Outcomes</b>
B.A – Yoga & Life Sciences	Yoga, wellness & life sciences centre	Wellness centre / community internship	Wellness organisations, NGOs	Yoga instructor, wellness facilitator

**Table 5.15: School of Architecture – Employability & Industry Mapping**

<b>Programme</b>	<b>Studios / Labs</b>	<b>Internship Structure</b>	<b>Industry / Practice Linkage</b>	<b>Employability Outcomes</b>
Integrated B.Arch–M.Arch – Architecture & Engineering	Architecture studios, sustainability labs	Mandatory architecture firm internship	Architecture & infrastructure firms	Architect, design consultant

## **5.5 Multiple Entry–Exit Flexibility and Academic Bank of Credits (ABC)**

In compliance with **NEP 2020**, Ramachandra Deemed to be University shall implement **flexible academic pathways**, enabling students to progress, pause and re-enter education without academic penalty.

### **5.5.1 Credit Transfer Mechanisms**

The University shall fully operationalise the **Academic Bank of Credits (ABC)** framework.

#### **Key Mechanisms**

- Digital credit registration and storage
- Credit accumulation across semesters and programmes
- Credit transfer between compatible programmes and institutions
- Recognition of prior learning, internships and certifications

Credits earned shall be **portable, verifiable and stackable**, enabling lifelong learning.

### 5.5.2 NEP 2020 Flexibility in Programme Design

Programme design at R-DTBU shall incorporate:

- Multiple exit options with appropriate certification
  - Certificate / Diploma / Degree / Degree with Honours / Research
- Flexible course sequencing
- Interdisciplinary minors and electives
- Research and skill-based credit options

This flexibility ensures:

- Reduced dropout impact
- Improved Gross Enrolment Ratio (GER)
- Student-centric academic progression

## 5.6 Integration of Technology for Enhanced Learning Experience

R-DTBU recognises technology as a **transformative enabler** of quality, access and innovation in higher education.

### Digital Learning Ecosystem

- ICT-enabled classrooms and smart learning spaces
- Learning Management System (LMS) for content delivery and assessment
- Digital libraries and research databases
- Simulation tools and virtual labs

### Pedagogical Innovation

- Blended and flipped classroom models
- Data-driven learning analytics
- AI-supported academic advising and assessment
- Remote and collaborative learning environments

Technology integration enhances **learning outcomes, academic flexibility and global connectivity**.

## 5.7 Mode of Imparting Education

The University shall adopt **multiple, NEP-compliant modes of imparting education**, ensuring accessibility, flexibility and academic rigour.

## Modes of Education

- **Regular (Full-time) Mode** – primary mode for degree programmes
- **Blended Mode** – combination of physical and digital learning
- **Experiential Mode** – internships, projects, fieldwork, studios
- **Research-Integrated Mode** – UG and PG research components
- **Community-Engaged Mode** – service learning and outreach

The curriculum of the existing programmes offered at Ramachandra College of Engineering are provided in **Annexure 21.2**. The curriculum and syllabus of the proposed unique and distinct programmes are provided in **Annexure 21.3 and 21.4**.

All modes shall adhere strictly to UGC [Institutions Deemed to be Universities] Regulations, 2023, with appropriate credit allocation, assessment and quality assurance.



*The Academic Plan of Ramachandra Deemed to be University reflects a coherent, phased and policy-aligned strategy that integrates multidisciplinary education with a structured research and innovation roadmap, positioning the University as a future-ready institution of regional and national significance.*

## Chapter-6

### FACULTY PLAN



*“The Faculty Plan of Ramachandra Deemed to be University shall be strategically executed through transparent, merit-based recruitment, phased faculty expansion, continuous professional development and a robust human resource policy to ensure academic excellence, research leadership and industry relevance.”*

The academic excellence and institutional sustainability of **Ramachandra Deemed to be University (R-DTBU)** are fundamentally dependent on the **quality, diversity and continuous development of its faculty**. The Faculty Plan is designed to ensure **adequate staffing, academic leadership, research capability, industry exposure and ethical governance**, consistent with UGC norms and NEP-2020 reforms.

#### 6.1 Recruitment Strategies

R-DTBU adopts a **transparent, merit-based and future-oriented faculty recruitment strategy**, aimed at attracting **academicians, researchers and industry professionals** capable of contributing to multidisciplinary education and research.

##### 6.1.1 Principles of Faculty Recruitment

Adding to the **present 236 well qualified and experienced faculty members** (refer **Annexure 21.5**), the faculty recruitment shall be further guided by:

- Academic merit and subject expertise
- Teaching and research competence
- Alignment with NEP-2020 and outcome-based education
- Commitment to innovation, ethics and societal engagement
- Diversity, inclusivity and gender equity

##### 6.1.2 Recruitment Channels

Faculty shall be recruited through:

- National-level advertisements, recruitment portals and University website
- Direct recruitment from reputed institutions and research organisations
- Industry professionals as Professors of Practice / Adjunct Faculty
- Visiting Professors and Distinguished Academics

##### 6.1.3 Faculty Categories

The University shall maintain a balanced mix of:

- Professors
- Associate Professors
- Assistant Professors

- Professors of Practice (Professor / Associate Professor / Assistant Professor from Industry)
- Visiting / Adjunct Faculty

This mix ensures **academic depth, research strength and industry relevance.**

### Faculty Strength Projection Table (5-Year)

**Table 6.1: Overall Faculty Strength Projection (University Level)**

Academic Year	Students Intake (all Years)	Professor	Associate Professor	Assistant Professor	Professor of Practice / Adjunct	Total Faculty	SFR
2025-26 (At Present)	<b>3936</b> (At Present)	25 (At Present)	50 (At Present)	155 (At Present)	6 (At Present)	<b>236</b> (At Present)	<b>1:16.7</b> (At Present)
2027-28	<b>4116</b>	28	55	165	27 (10%)	<b>275</b>	<b>1:15</b>
2028-29	<b>4536</b>	28	56	174	45 (15%)	<b>303</b>	<b>1:15</b>
2029-30	<b>5410</b>	32	64	193	72 (20%)	<b>361</b>	<b>1:15</b>
2030-31	<b>6544</b>	39	78	232	87 (20%)	<b>436</b>	<b>1:15</b>
2031-32	<b>7538</b>	45	90	267	100 (20%)	<b>502</b>	<b>1:15</b>

## 6.2 Faculty Metrics and Projections

Faculty planning at R-DTBU follows a **phased, sustainable expansion model**, aligned with programme growth, student intake and research ambitions.

### 6.2.1 Faculty–Student Ratio

- Faculty strength shall be maintained **as per UGC / statutory norms**
- Emphasis on **optimal faculty–student ratios** to ensure quality teaching, mentoring and research supervision

### 6.2.2 School-wise Faculty Planning

Each School shall have:

- Adequate core faculty for teaching and curriculum development
- Research-active faculty for postgraduate and research programmes
- Industry-experienced faculty for skill and application-oriented courses

### 6.2.3 Phased Faculty Expansion

Faculty strength shall be increased in line with:

- Introduction of new programmes
- Growth in student enrolment
- Establishment of research centres and innovation hubs

### 6.2.4 Research and Qualification Metrics

The University shall ensure:

- Increasing proportion of **Ph.D.-qualified faculty** from the present status of 18%.
- Faculty engagement in funded research, publications, patents and consultancy
- Balanced workload across teaching, research and outreach

## 6.3 Faculty Development and Training

Recognising faculty as **lifelong learners**, R-DTBU places strong emphasis on **continuous professional development** through the **Centre of Faculty Development and Training**.

### 6.3.1 Academic Development

- Regular Faculty Development Programmes (FDPs)
- Workshops on pedagogy, curriculum design and assessment
- Training in outcome-based education and NEP-aligned practices

### 6.3.2 Research Capacity Building

- Research methodology and proposal writing workshops
- Mentoring for publications, patents and funded projects
- Support for participation in conferences, seminars and academic networks

### 6.3.3 Industry and Skill Exposure

- Industry immersion programmes for faculty
- Training in emerging technologies and tools
- Collaboration with industry experts and practitioners

### 6.3.4 Teaching–Learning Innovation

- Training in blended, digital and experiential learning methods
- Use of educational technologies, LMS and analytics
- Promotion of interdisciplinary teaching practices

## 6.4 Human Resource Policy

R-DTBU shall implement a **comprehensive, transparent and equitable Human Resource Policy**, ensuring faculty welfare, accountability and institutional excellence.

### 6.4.1 Recruitment and Appointment Policy

- Appointments strictly as per UGC norms and regulations
- Clear eligibility criteria, selection processes and appointment terms

#### 6.4.2 Performance Management

- Periodic performance appraisal based on teaching, research and service
- Recognition of excellence through incentives and awards
- Supportive mechanisms for continuous improvement

#### 6.4.3 Career Advancement

- Career progression aligned with UGC norms
- Opportunities for leadership roles and academic responsibility
- Encouragement for higher qualifications and research leadership

#### 6.4.4 Faculty Welfare and Work Environment

- Supportive and inclusive work culture
- Equal opportunity and non-discrimination policies
- Professional development support and academic freedom

#### 6.4.5 Ethical Conduct and Accountability

- Code of conduct for faculty and staff
- Transparent grievance redressal mechanisms
- Commitment to academic integrity and ethical standards



*“The commitment of Ramachandra Deemed to be University is to educate with integrity, innovate with purpose and contribute to national development.”*

## Chapter-7

### ADMISSION PLAN



*“The Admission Plan of Ramachandra Deemed to be University shall be implemented through a transparent, merit-based, inclusive and phased intake framework that balances academic quality with equity, regional outreach and diversity.”*

The Admission Plan of Ramachandra Deemed to be University is designed to ensure **transparency, merit, inclusivity, diversity and equitable access**, in full alignment with **UGC [Institutions Deemed to be Universities] Regulations, 2023, NEP 2020** and constitutional provisions. The University adopts a **student-centric and socially responsive admissions framework**, balancing academic excellence with regional and national equity considerations.

#### 7.1 Admission Policy

R-DTBU shall follow a **clearly articulated, transparent and merit-based Admission Policy**, approved by the statutory bodies of the University and notified publicly.

##### Key Principles

- **Merit-based selection** with due consideration to inclusivity
- **Transparency and fairness** in admission processes
- **NEP-2020 flexibility** in pathways and programme choices
- **Regulatory compliance** with UGC and applicable statutory norms

##### Modes of Admission

Admissions shall be conducted through:

- National / State-level Entrance Examinations
- **Ramachandra University Common Entrance Test (RU-CET)**
- University-level admission processes, as per UGC guidelines
- Recognition of multiple credentials, including aptitude, subject competence and prior learning

##### Programme-Specific Criteria

- UG programmes: academic performance and/or entrance tests
- PG programmes: subject competence, entrance tests, interviews
- Integrated and Research programmes: aptitude for interdisciplinary learning and research orientation

All admission criteria shall be **programme-specific, publicly disclosed and periodically reviewed**.

## 7.2 Inclusivity, Reservation and Diversity

R-DTBU is committed to promoting inclusive and diverse learning environments, consistent with constitutional values and NEP-2020 equity goals.

### Reservation Policy

- Reservation for SC / ST / OBC / EWS / PwD categories shall be implemented as per Government of India norms, where applicable to Deemed to be Universities
- Statutory provisions related to minority status, if applicable, shall be duly followed

### Diversity Promotion

The University shall encourage:

- Gender diversity across programmes and leadership roles
- Regional diversity, with special focus on under-represented districts
- Socio-economic diversity through targeted outreach and financial aid

### Institutional Mechanisms

- Equal Opportunity Cell
- SC/ST and Minority Cells
- Gender Sensitisation and Anti-Discrimination Committees

These mechanisms ensure equitable access, support and grievance redressal.

## 7.3 Annual Intake Distribution

Admissions at R-DTBU shall follow a phased and sustainable intake plan, aligned with programme rollout, faculty strength, infrastructure readiness and quality assurance.

### 7.3.1 Principles of Intake Planning

- Compliance with UGC / statutory intake norms
- Optimal faculty–student ratio
- Quality over volume in early years
- Gradual expansion aligned with research and infrastructure growth

**Table 7.1: Indicative Annual Intake Distribution**

<b>Academic Level</b>	<b>Nature of Programmes</b>	<b>Intake Approach</b>
Undergraduate	UG, B.Tech, B.Sc, BBA, BA, B.Com, B.Voc	Moderate intake with multidisciplinary spread
Postgraduate	M.Tech, MBA, M.Sc (Research)	Focused intake aligned with research capability
Integrated	UG–PG Integrated Programmes	Selective intake for high-potential learners

Research	M.Sc (Research) / Ph.D. (phased)	Limited, mentor-driven intake
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(Detailed programme-wise intake tables are provided in Chapter 4 and Chapter 5.

## 7.4 Scholarships and Financial Aid

R-DTBU recognises financial constraints as a major barrier to higher education and is committed to providing comprehensive financial support mechanisms.

Types of Financial Support

- Merit-based scholarships
- Need-based fee concessions
- Government scholarships and fellowships
- Institutional scholarships for first-generation learners
- Support for SC/ST/OBC/EWS and PwD students



Figure 7.1: Category of Scholarships and Financial Aid under the proposed Ramachandra DTBU

Additional Support Measures

- Fee instalment options
- Work-study opportunities
- Emergency financial assistance
- Research assistantships and teaching assistantships for PG and research students

Scholarship policies shall be transparent, inclusive and periodically reviewed.

## 7.5 Rural and Marginalized Outreach

As a regional anchor university located in Eluru, R-DTBU places special emphasis on rural, semi-urban and marginalized communities.

### Outreach Strategies

- Awareness programmes in rural junior colleges
- Campaign to aware the programmes by R-DTBU in rural junior colleges
- Career guidance and counselling camps
- Bridge courses and preparatory programmes
- Digital literacy and foundational skill initiatives

### Access and Retention Support

- Mentoring and peer support for academics and personal wellbeing
- Language and learning assistance

### Long-Term Impact

Through sustained outreach, the University aims to:

- Improve access to quality higher education
- Reduce regional disparities
- Promote social mobility and inclusive development

### Programme-wise Annual Intake

**Table 7.2: Year-wise Summary of New Programmes & Total Intake**

Academic Year	No. of New Programmes Introduced	Approved Intake of New Programmes	No. of Existing Programmes	Approved Intake of Existing Programmes	Total Approved Intake
2027–28	3	180	16	1134	1134+180=1314
2028–29	4	240	19	1314	1314+240=1554
2029–30	7	454	23	1554	1554+454=2008
2030–31	4	300	30	2008	2008+300=2308
2031–32	1	40	34	2308	2308+40=2348

**Table 7.3: School-wise Cumulative Intake in the year 2031-32**

<b>School</b>	<b>Total Programmes</b>	<b>Total Intake</b>
Engineering & Technology	10	522
Computing	11	766
Applied Sciences	3	180
Management	6	420
Liberal Arts	3	180
Indian Knowledge Systems	1	60
Architecture	1	40



*“Ramachandra Deemed to be University is committed to a transparent, merit-based, inclusive and equitable admission process, aligned with national policies and regulatory frameworks, ensuring access to quality higher education for all sections of society.”*

## Chapter-8

### RESEARCH AND INNOVATION PLAN



*“The Research and Innovation Plan of Ramachandra Deemed to be University shall be executed through a phased, interdisciplinary and outcome-oriented framework that integrates research thrust areas, Centres of Excellence, innovation governance, industry and funding-agency collaboration, incubation, intellectual property creation, technology transfer and community-centric application.”*

Research and innovation form a **core pillar** of the academic vision of **Ramachandra Deemed to be University (R-DTBU)**. The University is committed to evolving into a **research-enabled, innovation-driven institution**, integrating research across undergraduate, postgraduate and research programmes in alignment with the **National Education Policy (NEP) 2020**.

The Research and Innovation Plan focuses on:

- Addressing **national and regional challenges**
- Promoting **interdisciplinary and translational research**
- Strengthening **industry, community and societal relevance**
- Building a **sustainable research ecosystem** in a phased manner

#### 8.1 Present Status and Outcomes of Flagship Initiatives and Centres of Excellence by Ramachandra College of Engineering

##### 1. AICTE IDEA Lab

The **AICTE IDEA Lab** at Ramachandra College of Engineering (RCE), Eluru has emerged as a hub of creativity and innovation.

- Provides advanced facilities for **design, prototyping, and testing real-world solutions**.
- Strengthened **industry collaborations** and fostered **student-led startups**.
- Enhanced **hands-on learning and practical skill development**, fully aligned with **NEP 2020**.
- Promoted a culture of **innovation-driven education** across disciplines.

##### 2. AICTE MODROBS

Through the **Modernization and Removal of Obsolescence (MODROBS)** scheme, RCE has upgraded its laboratories and workshops.

- Access to **state-of-the-art equipment** and **industry-relevant tools**.
- Improved **practical education** and **interdisciplinary learning opportunities**.
- Strengthened **industry collaboration** and enhanced **graduate employability**.
- Established RCE as a **modern learning environment** for technical education.

### 3. TIH & IoT – Chanakya Fellowship

The **TIH–IoT Chanakya Fellowship** has delivered impactful outcomes in research and entrepreneurship.

- Fellows developed **IoT prototypes** addressing real-world challenges (e.g., smart water monitoring).
- Multiple **patents filed** and **research contributions** made to India’s **NM-ICPS mission**.
- Strengthened **startup incubation and translational research**.
- Created strong linkages between **academia, industry, and entrepreneurship ecosystems**.

### 4. MSME IDEA Hackathons

The **MSME IDEA Hackathons (1.0–5.0)** have catalyzed student innovation and entrepreneurship.

- Funded **hundreds of innovative projects**, leading to prototypes and commercialization.
- Hackathon 4.0 approved **488 ideas**, while Hackathon 5.0 is under evaluation.
- Outcomes include **job creation, industry-ready solutions, and startup incubation**.
- Strengthened India’s **innovation and incubation ecosystem**.

### 5. Smart India Hackathons (SIH)

The **Smart India Hackathon** has become India’s largest innovation movement.

- Engaged **lakhs of students nationwide** to solve real-world problems for government and industry.
- Outcomes include **thousands of prototypes, patents, and startups**.
- SIH 2025 saw **68,000+ teams**, with winners delivering **AI-driven solutions** in education, tourism, and governance.
- Strengthened India’s **digital innovation ecosystem**.

### 6. AICTE FDPs, Seminars & STTPs

AICTE’s faculty development initiatives have transformed teaching and research at RCE.

- Enhanced **pedagogy and teaching quality**.
- Strengthened **research orientation and industry readiness**.
- Improved **student learning experiences** through modern teaching methods.
- Built a culture of **continuous professional development** among faculty.

### 7. DST – TEDP, WEDP & FDP

DST’s entrepreneurship-focused schemes have empowered RCE’s ecosystem.

- **TEDP**: Trained entrepreneurs in technology-based ventures.
- **WEDP**: Empowered women entrepreneurs with business and innovation skills.
- **FDP**: Equipped faculty to mentor startups and research-driven enterprises.

- Outcomes include **entrepreneurial capacity building, women-led ventures, and faculty mentorship excellence.**

## 8. IIT Bombay Remote Centre

The IIT Bombay Remote Centre at RCE has created a transformative impact.

- **Faculty Development:** Trained in ICT tools, MOOCs, and blended learning.
- **Student Skill Enhancement:** Hands-on workshops, hackathons, and coding camps.
- **Research & Innovation:** Collaborative projects, patents, and prototypes aligned with national missions.
- **Digital Integration:** Adoption of **Spoken Tutorial, SWAYAM, and MOOCs.**
- **Institutional Development:** Recognition as a **national training hub**, boosting accreditation scores.
- **Community Outreach:** Extended training to nearby colleges, contributing to **regional skill development.**

## Outcomes of Centres of Excellence

### 1. Centre of Excellence on Drone Technology (Govt. of Andhra Pradesh)

- Development of **indigenous drone prototypes** for agriculture, surveillance, and disaster management.
- Emergence of **student startups** in drone-based services.
- Collaboration with **state government departments** for real-time applications.
- Filing of **patents and publications** in UAV technology.
- Hands-on training producing **industry-ready drone engineers.**

### 2. E-Waste Management & E-Vehicles in Campus

- Established a **sustainable e-waste recycling model.**
- Reduced carbon footprint through **deployment of e-vehicles.**
- Conducted **awareness programs** on circular economy and green practices.
- Student-led innovations in **battery recycling and renewable charging stations.**
- Recognition as a **green campus initiative** supporting UN SDGs.

### 3. IBM Skill Build Center for Entrepreneurship

- Students trained in **entrepreneurship, design thinking, and digital skills.**
- Launch of **student-led startups** supported by IBM mentorship.
- Access to **global IBM resources and tools.**
- Faculty trained to mentor entrepreneurial ventures.
- Contribution to **regional startup ecosystem** in Andhra Pradesh.

### 4. NASSCOM Future Skills Prime Center

- Training in **AI, Cloud, Cybersecurity, Data Science, and Blockchain.**
- Industry-aligned **certification programs.**
- Students achieving **national recognition** in hackathons and innovation challenges.
- Bridging the **Industry 4.0 skill gap.**

- Collaboration with NASSCOM for **internships and career pathways**.

### 5. CISCO Thing Qbator (Advanced IoT Incubation Center)

- Development of **IoT-based prototypes** for smart cities, healthcare, and agriculture.
- Student teams incubated into **IoT startups**.
- Collaboration with **CISCO mentors and industry experts**.
- Filing of **patents and research papers** in IoT applications.
- Recognition as a **regional hub for IoT innovation**.

**Table 8.1: Present Status of R&D Outcomes in the existing Institution, Ramachandra College of Engineering**

<b>Publications in Journals (SCI/WoS/Scopus)</b>	<b>Patents Published / Granted</b>	<b>Grants (₹) Received</b>	<b>PhD Centre</b>	<b>MoE's IIC Rating</b>
<b>978</b>	<b>211</b>	<b>355.582 Lakhs</b>	<b>Yes, approved by JNTUK-Kakinada</b>	<b>FOUR Star</b>

The detailed list of publications, patents and grants received are provided in **Annexure 21.7**.

## 8.2 Research Thrust Areas

The research thrust areas of R-DTBU have been identified through:

- Academic strengths of the existing institution
- Proposed Schools and academic programmes
- Regional development needs of Andhra Pradesh
- National missions and emerging global research trends

These thrust areas are **interdisciplinary by design**, enabling collaboration across Schools.

### 8.2.1 Semiconductor Technology and Advanced Electronics

#### Focus Areas

- Semiconductor devices and materials
- VLSI design and chip architecture
- Embedded systems and nano-electronics

#### Relevance

- Aligns with India's Semiconductor and Electronics Manufacturing initiatives
- Supports industry-driven research and skilled manpower development

## 8.2.2 Artificial Intelligence, Data Science and Advanced Computing

### Focus Areas

- Artificial intelligence and machine learning
- Data analytics and intelligent systems
- Foundation models, generative AI and advanced algorithms
- Quantum computing and computational sciences

### Relevance

- Cross-cutting research supporting engineering, sciences, management and society
- Strong alignment with digital transformation and Industry 4.0/5.0

## 8.2.3 Robotics, Automation and Intelligent Manufacturing

### Focus Areas

- Robotics and autonomous systems
- Smart manufacturing and industrial automation
- Cyber-physical systems

### Relevance

- Supports advanced manufacturing and industrial innovation
- Enables applied research and industry collaboration

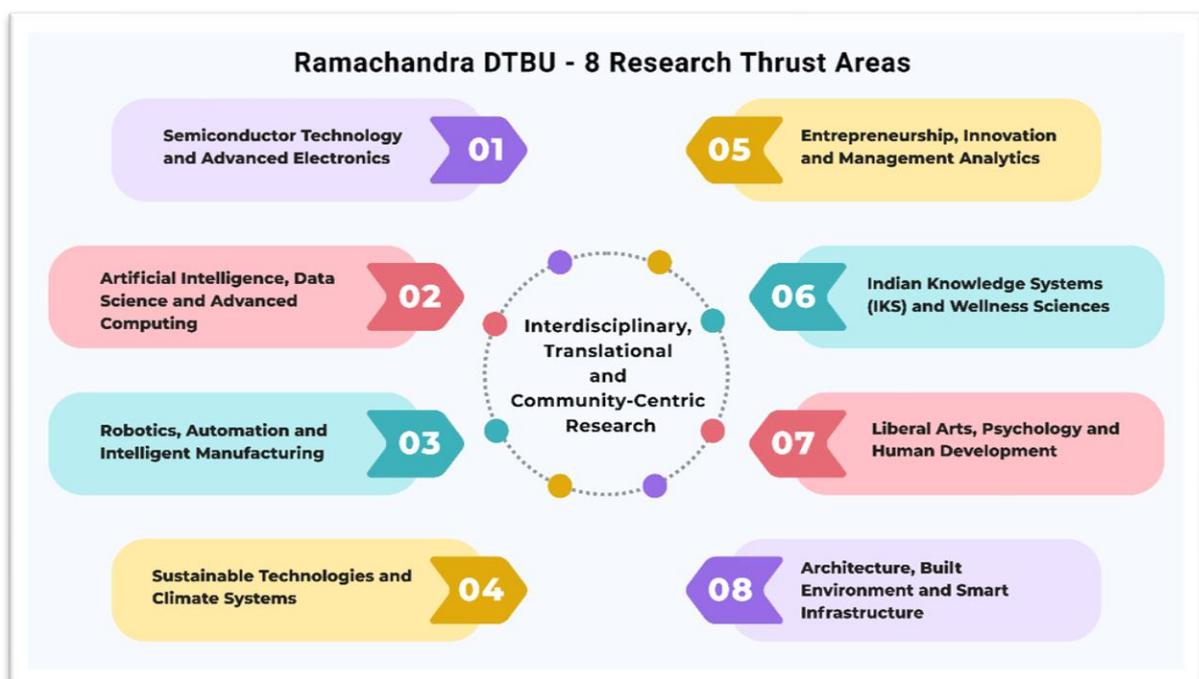


Figure 8.1: Research Thrust Areas under the proposed Ramachandra DTBU

## 8.2.4 Sustainable Technologies and Climate Systems

### Focus Areas

- Renewable and sustainable technologies
- Climate analytics and environmental systems
- Resource efficiency and green solutions

### Relevance

- Addresses regional environmental challenges
- Aligns with national sustainability goals and SDGs

## 8.2.5 Entrepreneurship, Innovation and Management Analytics

### Focus Areas

- Startup ecosystems and innovation management
- Failure analytics and business intelligence
- Technology-driven entrepreneurship

### Relevance

- Strengthens startup culture and economic development
- Supports policy research and industry-academia collaboration

## 8.2.6 Indian Knowledge Systems (IKS) and Wellness Sciences

### Focus Areas

- Yoga, wellness and life sciences
- Integration of Indian knowledge traditions with modern science
- Indigenous practices and sustainable living

### Relevance

- Aligns with NEP-2020 emphasis on IKS
- Promotes holistic health and societal well-being

## 8.2.7 Liberal Arts, Psychology and Human Development

### Focus Areas

- Cognitive science and mental health
- Human behaviour and social systems
- Creativity, design and cultural studies

### Relevance

- Supports holistic education and societal research

- Enhances human-centric approaches to technology and development

## 8.2.8 Architecture, Built Environment and Smart Infrastructure

### Focus Areas

- Sustainable architecture and smart buildings
- Integrated design and engineering solutions
- Urban and rural infrastructure systems

### Relevance

- Addresses infrastructure and urbanisation challenges
- Promotes interdisciplinary design-led research

### Interdisciplinary Nature of Research Thrusts

Each thrust area is designed to:

- Encourage **inter-School collaboration**
- Integrate **teaching, research and innovation**
- Promote **applied, translational and policy-oriented research**
- Support **student and faculty research participation**

## 8.3 Translational and Community Research

**Ramachandra Deemed to be University (R-DTBU)** recognises that meaningful research must extend beyond academic publications to **practical solutions, societal impact and community empowerment**. Accordingly, translational and community research forms a **central component** of the University's research and innovation ecosystem.

In alignment with **NEP 2020**, R-DTBU promotes a **research-to-application continuum**, ensuring that knowledge generated within the University contributes directly to **regional development, public welfare and sustainable growth**.

### 8.3.1 Philosophy of Translational Research

The translational research framework at R-DTBU is guided by the following principles:

- **Problem-driven research** rooted in real-world challenges
- **Interdisciplinary collaboration** across Schools
- **Co-creation of knowledge** with industry, government and communities
- **Scalability and replicability** of solutions
- **Ethical and socially responsible innovation**

This philosophy ensures that research outcomes move **from laboratories to society**, enhancing relevance and impact.

### 8.3.2 Translational Research Domains

R-DTBU shall promote translational research in areas aligned with its academic strengths and regional context, including:

- Semiconductor applications and electronics systems
- Artificial intelligence for agriculture, health and governance
- Robotics and automation for MSMEs and rural industries
- Sustainable technologies for energy, water and waste management
- Digital platforms for entrepreneurship and financial inclusion

Faculty and students will be encouraged to develop **prototypes, pilot projects and proof-of-concept solutions** addressing these domains.

### 8.3.3 Community-Centric Research Approach

Community research at R-DTBU is designed to:

- Address **local and regional challenges** of the Eluru–West Godavari region
- Respect and integrate **local knowledge and practices**
- Promote participatory and inclusive research methodologies

#### Key Focus Areas

- Rural livelihoods and skill development
- Sustainable agriculture and aquaculture
- Public health, nutrition and wellness
- Environmental sustainability and climate resilience
- Education, digital literacy and social inclusion

### 8.3.4 Institutional Mechanisms for Translational and Community Research

To operationalise translational and community research, the University proposes:

- Establishment of **Translational Research Cells** within major Schools
- Creation of **Community Research and Extension Centres**
- Formation of **Community Advisory Groups**
- Integration of community-based research projects into curricula
- Support for faculty-led and student-led applied research initiatives

These mechanisms ensure **systematic planning, execution and evaluation** of community-oriented research.

### 8.3.5 Student and Faculty Engagement

R-DTBU shall actively engage:

- Undergraduate students through **project-based and service learning**
- Postgraduate students through **applied research and field studies**
- Faculty through **interdisciplinary and action research**

This approach cultivates **social responsibility, experiential learning and research competence**.

### 8.3.6 Partnerships for Translational and Community Research

The University shall collaborate with:

- Local and State Government agencies
- Industry and MSMEs
- NGOs and community-based organisations
- Health, wellness and environmental agencies

Such partnerships strengthen **resource sharing, relevance and impact**.

Through translational and community research, R-DTBU aims to:

- Generate **practical solutions to societal challenges**
- Support **regional development and livelihoods**
- Enhance **research relevance and visibility**
- Strengthen the University's role as a **community-engaged institution**
- Contribute to **national priorities and SDGs**

## 8.4 Centres of Excellence

**Ramachandra Deemed to be University (R-DTBU)** proposes the establishment of **Centres of Excellence (CoEs)** as **flagship institutional mechanisms** to drive **focused research, innovation, industry collaboration and societal impact**. These Centres are envisioned as **interdisciplinary, outcome-oriented and scalable platforms**, aligned with national priorities and regional needs.

The CoEs shall serve as **knowledge hubs** that integrate advanced research, talent development, technology translation and community engagement.

Existing Centres of Excellences in Ramachandra College of Engineering;

- Centre for Electric Vehicles (EV) Assembling & V-Waste Conversion
- Robotics and Drone CoE
- PCB Designing & Antenna CoE
- Internet of Things (IoT) CoE
- Centre for 3D Printing and Additive Manufacturing
- AR & VR Technology CoE

### 8.4.1 Rationale for Establishing Centres of Excellence

The establishment of new CoEs at R-DTBU is guided by the following objectives:

- To focus institutional research efforts on **strategic and high-impact domains**
- To promote **interdisciplinary collaboration** across Schools
- To strengthen **industry-academia and community linkages**
- To enhance **research funding, publications, patents and innovation outcomes**

- To position the University as a **regional and national research leader**

This approach aligns with **NEP 2020**, which encourages universities to develop **specialised research clusters and centres**.

#### **8.4.2 Proposed Centres of Excellence**

The following new Centres of Excellence are proposed, to be established in a **phased manner** based on readiness, funding and faculty strength.

##### **Centre of Excellence in Semiconductor Technology and Advanced Electronics**

###### **Focus Areas**

- Semiconductor devices, VLSI design and nano-electronics
- Chip design, testing and embedded systems

###### **Objectives**

- Support India's semiconductor and electronics manufacturing initiatives
- Develop industry-ready researchers and engineers
- Promote industry-sponsored and applied research

##### **Centre of Excellence in Artificial Intelligence, Data Science and Advanced Computing**

###### **Focus Areas**

- Artificial intelligence and machine learning
- Data analytics, foundation models and generative AI
- Quantum computing and advanced algorithms

###### **Objectives**

- Enable cross-disciplinary AI applications
- Support research-led postgraduate and doctoral programmes
- Foster AI-driven innovation and startups

##### **Centre of Excellence in Robotics, Automation and Intelligent Manufacturing**

###### **Focus Areas**

- Robotics and autonomous systems
- Industrial automation and cyber-physical systems
- Smart and intelligent manufacturing

###### **Objectives**

- Promote Industry 4.0 / 5.0 aligned research
- Support MSMEs and manufacturing sectors
- Enable applied research and technology transfer

## Centre of Excellence in Sustainable Technologies and Climate Systems

### Focus Areas

- Renewable energy and sustainable systems
- Climate analytics and environmental modelling
- Resource efficiency and green technologies

### Objectives

- Address regional and national sustainability challenges
- Support climate-resilient development
- Align research outcomes with SDGs

## Centre of Excellence in Entrepreneurship, Innovation and Start-up Analytics

### Focus Areas

- Startup ecosystems and innovation management
- Failure analytics, business intelligence and policy research
- Technology entrepreneurship and incubation

### Objectives

- Strengthen the startup and innovation ecosystem
- Support student and faculty entrepreneurship
- Contribute to regional economic development

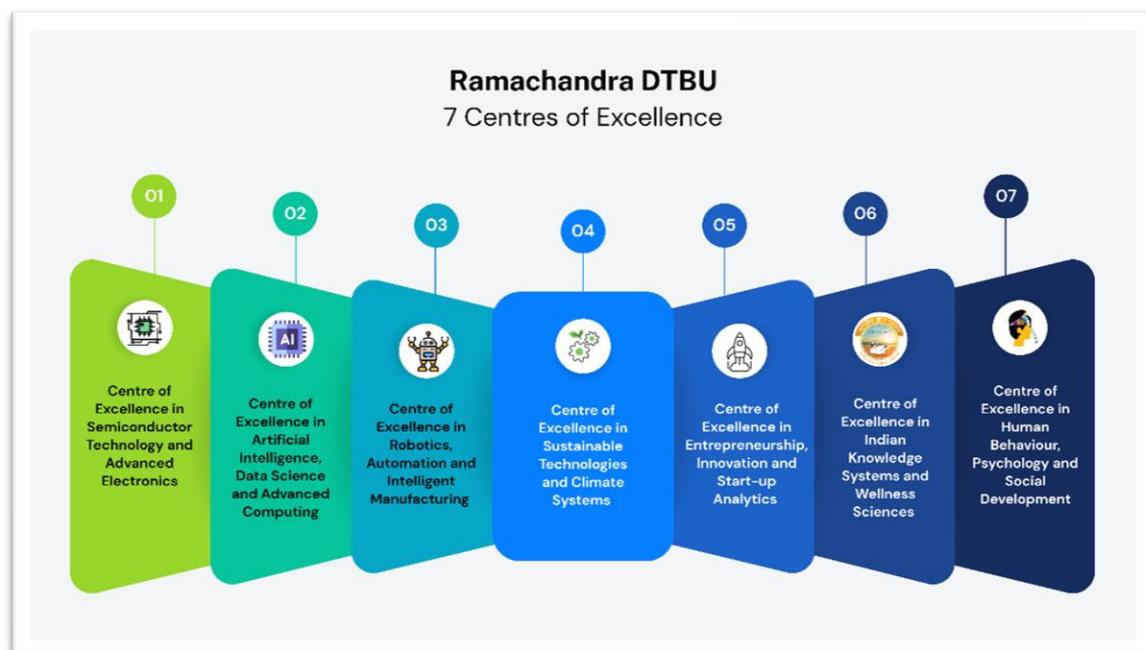


Figure 8.2: Centre of Excellences under the proposed Ramachandra DTBU

## Centre of Excellence in Indian Knowledge Systems and Wellness Sciences

### Focus Areas

- Yoga, wellness and life sciences
- Integration of IKS with modern scientific research
- Indigenous practices and sustainable living

### Objectives

- Preserve and advance Indian knowledge traditions
- Promote holistic health and well-being
- Generate globally relevant IKS-based research

## Centre of Excellence in Human Behaviour, Psychology and Social Development

### Focus Areas

- Cognitive science and mental health
- Human behaviour, social systems and well-being
- Community and policy-oriented research

### Objectives

- Support human-centric research
- Inform public policy and social interventions
- Promote inclusive and ethical development

### 8.4.3 Governance and Operational Framework

Each Centre of Excellence shall operate under a **defined governance structure**, including:

- A **Centre Director** (senior faculty/research leader)
- Core and associate faculty from multiple Schools
- Industry, government, or community advisors
- Clearly defined research agenda and performance indicators

Periodic review shall be conducted to ensure **relevance, quality and impact**.

### 8.4.4 Phased Implementation Strategy

- **Phase I:** Establishment of core CoEs aligned with existing strengths
- **Phase II:** Expansion based on research output, funding and partnerships
- **Phase III:** International collaboration, advanced research facilities and global visibility

This phased approach ensures **financial prudence and academic sustainability**.

The CoEs are expected to:

- Enhance research quality and visibility
- Attract funded projects and industry collaboration
- Generate patents, prototypes and startups
- Support postgraduate and research education
- Contribute to societal and national development

## 8.5 Institution Innovation Council (IIC)

**Ramachandra College of Engineering** has already established the **MoE's Institution Innovation Council (IIC)** as a **strategic, structured and nationally aligned mechanism** to foster **innovation, entrepreneurship, start-ups and research translation** and rated with **Four-star** status, at present.

Under the proposed Ramachandra-DTBU, the IIC shall function in accordance with the framework and guidelines of the **Ministry of Education's Innovation Cell (MoE-MIC)** and shall act as the **nodal institutional platform** for nurturing an innovation-driven academic culture.

### 8.5.1 Rationale for Establishing the Institution Innovation Council

The University-wide enhancement of the IIC shall drive by the following objectives:

- To institutionalise **innovation and entrepreneurship** as core academic outcomes
- To create a **systematic pipeline from idea → prototype → startup → scale-up**
- To integrate innovation activities with **academic programmes, research and incubation**
- To align institutional innovation efforts with **national missions and startup policies**
- To prepare students and faculty as **problem solvers, innovators and job creators**

This approach is fully aligned with **NEP 2020**, which emphasises innovation, creativity and entrepreneurial mindset as essential outcomes of higher education.

### 8.5.2 Structure and Governance of the IIC

The Institution Innovation Council at R-DTBU shall be governed through a **clearly defined structure**, comprising:

- **President / Chairperson** – Senior academic leader
- **Convener** – Faculty with innovation and entrepreneurship expertise
- **Innovation Activity Coordinators** – School-wise representatives
- **Industry, Startup and Alumni Advisors**
- **Student Innovation Representatives**

The IIC shall function under the overall supervision of the **Research & Innovation Council of the University**, ensuring strategic alignment and accountability.

### 8.5.3 Key Functions and Activities of the IIC

The IIC shall undertake a wide range of **structured and outcome-oriented activities**, including:

#### a) Innovation Awareness and Capacity Building

- Innovation talks, workshops and boot camps
- Design thinking and problem-solving programmes
- Awareness programmes on IPR, startups and entrepreneurship

#### b) Student and Faculty Innovation Promotion

- Ideation challenges, hackathons and innovation contests
- Mentoring for proof-of-concept and prototype development
- Support for interdisciplinary innovation teams

#### c) Startup and Entrepreneurship Support

- Pre-incubation support for student and faculty startups
- Linkage with the University Innovation & Incubation Centre
- Guidance on funding, mentoring and market validation

#### d) Collaboration and Networking

- Engagement with industry, startups and innovation ecosystems
- Participation in national innovation programmes and challenges
- Collaboration with other IIC-enabled institutions

### 8.5.4 Integration with Academic Programmes and Research

The IIC at R-DTBU shall be **deeply embedded within the academic framework**, ensuring that innovation is not treated as an extracurricular activity.

Key integration mechanisms include:

- Credit-linked innovation and entrepreneurship activities
- Innovation-based final year projects and dissertations
- Faculty-guided innovation and translational research
- Alignment with Centres of Excellence and research thrust areas

### 8.5.5 Alignment with National Innovation and Startup Missions

The Institution Innovation Council shall align its activities with:

- National startup and innovation missions
- Policies promoting **Atmanirbhar Bharat** and **Viksit Bharat @2047**
- Skill, entrepreneurship and MSME development initiatives

This ensures that institutional innovation efforts contribute to **national development priorities**.

### 8.5.6 Monitoring, Evaluation and Reporting

The performance of the IIC shall be:

- Monitored through **annual activity plans and outcome indicators**
- Evaluated based on innovation outputs such as ideas generated, prototypes developed, startups incubated and IP created
- Reported periodically to statutory bodies and relevant national platforms

This ensures **continuous improvement, accountability and impact**.

Through the IIC, R-DTBU aims to:

- Cultivate a **campus-wide innovation and entrepreneurial culture**
- Increase student and faculty participation in innovation activities
- Generate startups, patents and commercially viable solutions
- Strengthen research translation and industry relevance
- Enhance institutional visibility and reputation in innovation ecosystems

## 8.6 Incubation and Start-up Ecosystem

Ramachandra Deemed to be University (R-DTBU) envisions a **vibrant incubation and start-up ecosystem** as a critical driver of **innovation, entrepreneurship, employment generation and regional economic development**. In line with **NEP 2020**, the University recognises entrepreneurship as a **key outcome of higher education**, particularly in technology-enabled and knowledge-driven sectors.

The incubation ecosystem at R-DTBU is designed to seamlessly integrate **education, research, innovation and enterprise creation**.

### 8.6.1 Vision and Objectives of the Incubation Ecosystem

The primary objectives of the incubation and start-up ecosystem are to:

- Encourage **student and faculty entrepreneurship**
- Translate research and innovative ideas into **commercially viable ventures**
- Support **technology transfer and local enterprise development**
- Promote **job creators over job seekers**
- Strengthen the University's role in **regional and national innovation systems**

### 8.6.2 Institutional Framework for Incubation

R-DTBU proposes the establishment of a **University Innovation and Incubation Centre (UIIC)** with the following components:

- Dedicated incubation infrastructure and co-working spaces
- Innovation labs and prototyping facilities
- Startup mentoring and advisory support
- Access to industry experts, investors and accelerators
- Administrative and legal support for startups

The UIIC shall function as a **centralised nodal entity**, coordinating incubation activities across all Schools.

### **8.6.3 Focus Areas for Incubation and Start-ups**

The incubation ecosystem shall focus on **domain-aligned and regionally relevant sectors**, including:

- Semiconductor and electronics-based startups
- Artificial intelligence, data analytics and digital platforms
- Robotics, automation and smart manufacturing solutions
- Sustainable technologies, climate solutions and green startups
- Agri-tech, aquaculture and rural innovation
- Health, wellness and IKS-based enterprises
- Design, creative industries and digital commerce

These focus areas ensure **alignment with academic programmes, research thrusts and local economic needs**.

### **8.6.4 Integration with Academic Programmes and Research**

Entrepreneurship at R-DTBU shall be **academically embedded**, not peripheral.

Key integration mechanisms include:

- Credit-based entrepreneurship and innovation courses
- Startup projects as alternatives to traditional dissertations
- Faculty-guided innovation and venture development
- Interdisciplinary startup teams across Schools

This ensures that innovation and entrepreneurship are **recognised academic outcomes**.

### **8.6.5 Support Mechanisms for Start-ups**

Startups incubated at R-DTBU shall receive:

- Mentorship from faculty, industry experts and entrepreneurs
- Access to laboratories, Centres of Excellence and testing facilities
- Support for intellectual property protection and commercialisation
- Guidance for funding through government schemes, angel investors and venture capital
- Market access support and pilot deployment opportunities

### **8.6.6 Partnerships and Ecosystem Linkages**

The University shall build strong linkages with:

- Industry partners and MSMEs
- Government innovation and startup missions
- Incubators, accelerators and entrepreneurship networks

- Financial institutions and funding agencies

Such partnerships strengthen **scalability, sustainability and impact** of the startup ecosystem.

### 8.6.7 Student and Faculty Entrepreneurship Promotion

R-DTBU encourages:

- Student-led startups through ideation challenges, hackathons and innovation bootcamps
- Faculty entrepreneurship and consultancy-driven ventures
- Recognition and incentives for successful entrepreneurial outcomes

These initiatives foster an **entrepreneurial culture across the campus**.

Through its incubation and start-up ecosystem, R-DTBU aims to:

- Incubate **innovative and socially relevant startups**
- Generate employment and promote regional entrepreneurship
- Commercialise research and intellectual property
- Contribute to national innovation and startup missions
- Enhance the University's visibility and impact

## 8.7 Collaborations and MoUs

**Ramachandra Deemed to be University (R-DTBU)** recognises collaboration as a **strategic enabler** for academic excellence, research advancement, innovation and global engagement. The University proposes to establish **structured, outcome-oriented collaborations and Memoranda of Understanding (MoUs)**, in addition to the **existing 69 academic, industry and R&D collaborators** (refer **Annexure 21.6**), with a wide range of stakeholders, including **industry, academia, research institutions, government agencies and community organisations**.

In alignment with **NEP 2020**, collaborations at R-DTBU are envisioned not as symbolic associations, but as **active partnerships with clearly defined academic, research and societal outcomes**.

### 8.7.1 Objectives of Collaborations and MoUs

The primary objectives of institutional collaborations are to:

- Enhance **academic quality and curriculum relevance**
- Strengthen **research capacity and funded projects**
- Promote **innovation, incubation and technology transfer**
- Enable **faculty and student mobility**
- Support **community engagement and regional development**
- Improve **national and international visibility**

### **8.7.2 Academic and Research Collaborations**

R-DTBU shall establish collaborations with:

- Reputed universities and higher education institutions
- National research laboratories and centres
- Centres of Excellence and advanced research facilities

#### **Key Areas of Collaboration**

- Joint research projects and publications
- Faculty and student exchange programmes
- Co-supervision of postgraduate and research scholars
- Shared academic resources and laboratories
- Development of interdisciplinary programmes

These collaborations shall strengthen the **research-led academic ecosystem** of the University.

### **8.7.3 Industry and Corporate Collaborations**

Industry partnerships are a **core component** of R-DTBU's Distinct Category positioning.

#### **Focus Areas**

- Curriculum co-design and periodic review
- Industry-supported laboratories and Centres of Excellence
- Internships, apprenticeships and live projects
- Sponsored research, consultancy and technology development
- Placement and employability enhancement

Industry MoUs shall be **sector-specific and outcome-driven**, ensuring long-term relevance and sustainability.

### **8.7.4 Collaborations for Innovation and Start-ups**

In support of the University's incubation and entrepreneurship ecosystem, R-DTBU shall collaborate with:

- Startup incubators and accelerators
- Innovation hubs and entrepreneurship networks
- Angel investors, venture capital firms and funding agencies

These collaborations will provide:

- Mentorship and business advisory support
- Access to funding and market linkages
- Scaling and commercialisation opportunities for startups

### 8.7.5 Government, Policy and Developmental Collaborations

The University shall work closely with:

- Central and State Government departments
- Public sector undertakings and agencies
- Local governance bodies and development authorities

Such collaborations shall support:

- Policy-oriented research and advisory services
- Community development and outreach programmes
- Implementation of national and state development initiatives

### 8.7.6 International Collaborations

R-DTBU aims to progressively build **international academic and research collaborations**, aligned with national regulations and priorities.

#### Key Initiatives

- Joint research and academic programmes
- Faculty and student exchange
- International conferences, workshops and seminars
- Global benchmarking and best-practice adoption

International collaborations shall enhance **global exposure while remaining rooted in national relevance**.

### 8.7.7 MoU Governance and Implementation Framework

To ensure effectiveness, all MoUs shall be governed by a **structured institutional framework**, including:

- Clearly defined scope, objectives and deliverables
- Designated coordinators and implementation committees
- Periodic review and outcome assessment
- Documentation and reporting of activities and impact

MoUs shall be **reviewed regularly** to ensure alignment with institutional goals and performance benchmarks.

Through systematic collaborations and MoUs, R-DTBU aims to:

- Enhance academic and research quality
- Increase funded research and consultancy
- Improve student employability and global exposure
- Strengthen innovation and startup outcomes
- Contribute to societal and regional development
- Elevate institutional reputation and visibility

## 8.8 Patents and Intellectual Property Rights (IPR)

**Ramachandra Deemed to be University (R-DTBU)** recognises **Intellectual Property (IP)** as a critical output of research, innovation and creative activity. The University is committed to fostering a **strong IPR culture** that encourages invention, protects intellectual assets and enables ethical commercialisation of knowledge.

In alignment with **NEP 2020**, R-DTBU treats IPR as an **integral component of the academic and research ecosystem**, rather than a peripheral administrative function.

### 8.8.1 IPR Policy Framework

R-DTBU shall adopt a **comprehensive Institutional IPR Policy**, approved by statutory bodies, covering:

- Ownership of intellectual property created by faculty, students and staff
- Revenue sharing mechanisms from commercialisation
- Rights and responsibilities of inventors and the University
- Procedures for disclosure, protection and commercialisation
- Compliance with national and international IPR laws

The policy shall be **transparent, inventor-friendly and innovation-enabling**.

### 8.8.2 Institutional Mechanisms for IPR Management

The University shall establish an **Intellectual Property Rights Cell / Technology Transfer Office (TTO)** responsible for:

- Identification and evaluation of patentable inventions
- Filing and prosecution of patents, copyrights, designs and trademarks
- Legal and technical support for IPR protection
- Advisory services on IP strategy and freedom-to-operate
- Awareness and training programmes on IPR

This mechanism ensures **professional handling of intellectual assets**.

### 8.8.3 Promotion of Patent Culture

To build a strong patent ecosystem, R-DTBU shall:

- Encourage faculty and students to disclose inventions early
- Integrate IPR awareness into academic programmes and FDPs
- Provide financial and procedural support for patent filing
- Recognise and reward high-quality patents and innovations
- Promote interdisciplinary invention through Centres of Excellence

Through systematic IPR management, the University aims to:

- Increase patent filings and grants

- Protect research outputs and innovations
- Enhance institutional research credibility
- Support commercialisation and startup creation
- Generate revenue through licensing and technology transfer

## 8.9 Transfer of Technology

Technology Transfer (ToT) is a **strategic extension of the research and innovation mission** of R-DTBU. The University is committed to ensuring that **research outputs translate into usable technologies, products, processes and services** that benefit industry, society and the economy.

### 8.9.1 Technology Transfer Framework

The Technology Transfer framework at R-DTBU encompasses:

- Identification of commercially viable research outputs
- Validation and prototyping of technologies
- Protection of IP prior to disclosure
- Market assessment and partner identification
- Licensing, assignment, or startup-based commercialisation

This structured approach ensures **systematic movement from lab to market**.

### 8.9.2 Strategy for Technology Transfer

R-DTBU shall facilitate Technology Transfer through multiple modes:

- **Licensing** of patents and technologies to industry
- **Industry-sponsored research** with defined ToT clauses
- **Startup-led commercialisation** through the University Incubation Centre
- **Consultancy and collaborative development** with MSMEs and enterprises
- **Community-oriented technology deployment** for societal benefit

### 8.9.3 Integration with Incubation and Start-ups

The Technology Transfer ecosystem shall be closely integrated with:

- The University Innovation and Incubation Centre
- Centres of Excellence and research labs
- Faculty and student entrepreneurship initiatives

This integration enables **rapid translation of research into enterprises**, supporting job creation and regional development.

### 8.9.4 Industry and Community Engagement in ToT

The University shall actively engage:

- Industry partners for pilot testing and scale-up
- MSMEs for local manufacturing and deployment

- Government agencies and NGOs for societal applications

This ensures that technology transfer addresses **both economic and social needs**.

### 8.9.5 Governance and Quality Assurance

Technology Transfer activities shall be governed by:

- Clear policies and standard operating procedures
- Due diligence and ethical compliance
- Periodic review of outcomes and impact
- Transparent revenue sharing and reporting

Through effective Technology Transfer, R-DTBU aims to:

- Translate research into tangible societal and industrial benefits
- Strengthen industry-academia collaboration
- Enhance innovation-led revenue generation
- Support startups and entrepreneurship
- Contribute to national self-reliance and development

## 8.10 Funding Agency – Industry – Academia Collaboration

**Ramachandra Deemed to be University (R-DTBU)** recognises that impactful research and innovation require **synergistic collaboration among funding agencies, industry and academia**. The University proposes a **triple-helix collaboration model** to mobilise resources, accelerate innovation and translate research into societal and economic value.

In alignment with **NEP 2020**, such collaborations are positioned as **institutional strategies**, not project-specific arrangements, ensuring long-term sustainability and national relevance.

### 8.10.1 Objectives of the Triple-Helix Collaboration Model

The Funding Agency–Industry–Academia collaboration framework at R-DTBU aims to:

- Enhance **access to competitive research funding**
- Promote **industry-relevant and application-oriented research**
- Accelerate **technology development, validation and deployment**
- Strengthen **research capacity and infrastructure**
- Support **innovation, startups and entrepreneurship**
- Address **regional, national and global challenges**

### 8.10.2 Collaboration with National and International Funding Agencies

R-DTBU shall actively engage with **government and non-government funding agencies** to support research and innovation.

#### Key Areas of Engagement

- Sponsored research and development projects

- Centres of Excellence and infrastructure grants
- Research fellowships and scholarships
- Innovation and startup funding
- Community and societal impact projects

The University shall establish a **Research Development and Funding Facilitation Cell** to identify funding opportunities, support proposal development and manage grants.

### 8.10.3 Industry-Academia Collaborative Research

Industry collaboration is central to R-DTBU's **Distinct Category positioning**.

#### Modes of Industry-Academia Collaboration

- Joint research and development projects
- Industry-sponsored research chairs and laboratories
- Co-funded doctoral and postgraduate research
- Product development, testing and validation
- Consultancy and problem-solving initiatives

Industry partners shall play an active role in **problem identification, solution design and deployment**, ensuring relevance and impact.

### 8.10.4 Integrated Funding Models

The University proposes **integrated funding models** that combine:

- Government / public funding
- Industry investment and sponsorship
- Institutional support and seed funding

Such models enable:

- Risk sharing and sustainability
- Faster translation of research outcomes
- Scaling of successful innovations

### 8.10.5 Alignment with Research Thrust Areas and Centres of Excellence

Funding agency and industry collaborations shall be aligned with:

- Identified **research thrust areas**
- Established **Centres of Excellence**
- Institutional priorities and regional needs

This ensures **focused investment**, avoidance of duplication and maximum impact.

### 8.10.6 Support for Students and Early-Career Researchers

The collaboration framework shall also support:

- Student research internships and fellowships
- Industry-mentored projects and dissertations
- Exposure to funded research environments
- Skill development in proposal writing and project management

This strengthens the **research pipeline and talent development**.

### 8.10.7 Governance and Accountability

All collaborative projects shall be governed through:

- Clearly defined MoUs and project agreements
- Transparent financial management and reporting
- Periodic monitoring and outcome assessment
- Compliance with ethical, regulatory and funding norms

This ensures **credibility, accountability and institutional trust**.

Through structured Funding Agency–Industry–Academia collaboration, R-DTBU aims to:

- Increase funded research projects and grants
- Enhance quality publications, patents and prototypes
- Accelerate technology transfer and startup creation
- Strengthen regional innovation and economic development
- Elevate institutional research reputation at national and global levels

## 8.11 University Research Fellowships – JRF, SRF & Postdoctoral Fellowships

**Ramachandra Deemed to be University (R-DTBU)** proposes to institute a structured **University Research Fellowship (URF)** schemes namely **JRF/SRF/PDF** to attract, retain and nurture **high-quality research talent** across priority research domains. The fellowship framework is designed to strengthen the **research pipeline**, enhance doctoral and postdoctoral capacity and promote a **research-intensive academic culture**, in alignment with **NEP 2020**.

### 8.11.1 Objectives of the University Research Fellowship Scheme

The objectives of the URF scheme are to:

- Encourage **full-time research engagement** among meritorious scholars
- Strengthen **research output and quality**
- Support research aligned with **identified thrust areas and Centres of Excellence**
- Create a sustainable **research talent ecosystem** within the University

### **8.11.2 Junior Research Fellowships (JRF)**

#### **Eligibility & Focus**

- High-merit postgraduate candidates with research aptitude
- Alignment with approved research thrust areas

#### **Support Structure**

- Monthly fellowship and contingency support (as per University norms)
- Access to laboratories, Centres of Excellence and research infrastructure
- Faculty mentorship and research training

#### **Purpose**

- Early-stage research capacity building
- Preparation for doctoral research and competitive national fellowships

### **8.11.3 Senior Research Fellowships (SRF)**

#### **Eligibility & Focus**

- Advanced doctoral scholars demonstrating research progress and output
- Transition from exploratory to advanced and applied research

#### **Support Structure**

- Enhanced fellowship support
- Opportunities for teaching assistance and mentoring junior researchers
- Participation in funded and collaborative research projects

#### **Purpose**

- Strengthen doctoral research quality and completion rates
- Enhance publications, patents and translational outcomes

### **8.11.4 Postdoctoral Fellowships (PDF)**

#### **Eligibility & Focus**

- Ph.D. holders with strong research credentials
- Alignment with Centres of Excellence and interdisciplinary research programmes

#### **Support Structure**

- Fixed-term fellowship appointments
- Independent research with faculty collaboration
- Access to funding facilitation and innovation ecosystems

## Purpose

- Attract high-impact researchers
- Enhance advanced research output and mentorship
- Strengthen national and international research collaborations

### 8.11.5 Governance and Monitoring

All fellowship programmes shall be governed by:

- Transparent selection processes
- Clearly defined tenure, deliverables and performance indicators
- Periodic review by the Research Council

This ensures **academic rigour, accountability and sustained impact**.

## 8.12 Research Professors

R-DTBU proposes the appointment of **Research Professors** as a strategic mechanism to **strengthen high-impact research leadership**, mentor scholars and drive funded research and innovation.

### 8.12.1 Role and Purpose of Research Professors

Research Professors shall:

- Lead major research thrust areas and Centres of Excellence
- Mentor doctoral, postdoctoral and early-career researchers
- Attract funded projects and industry collaboration
- Enhance research visibility, publications and IP outcomes

These positions are **research-intensive**, with limited teaching responsibilities.

### 8.12.2 Appointment and Engagement Model

Research Professors may be:

- Appointed on full-time, contractual, or visiting basis
- Drawn from academia, research institutions, or industry R&D
- Evaluated based on research output, funding mobilisation and mentorship impact

### 8.12.3 Institutional Impact

The Research Professor framework enables:

- Acceleration of research maturity
- Strengthening of interdisciplinary collaboration
- Enhanced institutional credibility in funded research

### 8.13 Chair Professor – Research

To further elevate research excellence, R-DTBU proposes the institution of **Chair Professorships in Research**, aligned with **strategic priority areas** and supported through **endowments, industry sponsorships, or institutional funding**.

#### 8.13.1 Objectives of Chair Professorships

Chair Professors are intended to:

- Provide visionary leadership in critical research domains
- Anchor long-term, high-impact research agendas
- Strengthen industry, government and international collaborations
- Enhance institutional prestige and thought leadership

#### 8.13.2 Focus Areas for Chair Professorships

Indicative areas include:

- Semiconductor and Advanced Electronics
- Artificial Intelligence and Advanced Computing
- Sustainable Technologies and Climate Systems
- Entrepreneurship, Innovation and Policy Studies
- Indian Knowledge Systems and Wellness Sciences

#### 8.13.3 Funding and Governance

Chair Professorships may be supported through:

- Industry-endowed chairs
- Philanthropic and trust-funded endowments
- Sponsored research and development grants

Appointments shall follow:

- Transparent selection processes
- Defined tenure and performance expectations
- Periodic review by statutory bodies

Chair Professorships are expected to:

- Enhance high-impact research output
- Attract funding, talent and collaboration
- Mentor the next generation of research leaders
- Strengthen the University's national and global standing



*“Research at Ramachandra Deemed to be University shall consciously move beyond publication to translation—ensuring that knowledge generated contributes meaningfully to industry, community development and public good.”*

## Chapter-9

**INFRASTRUCTURE AND SUPPORT SYSTEMS PLAN**

*“Infrastructure and support systems are the foundation of academic excellence, enabling learning, research, innovation and holistic student development.”*

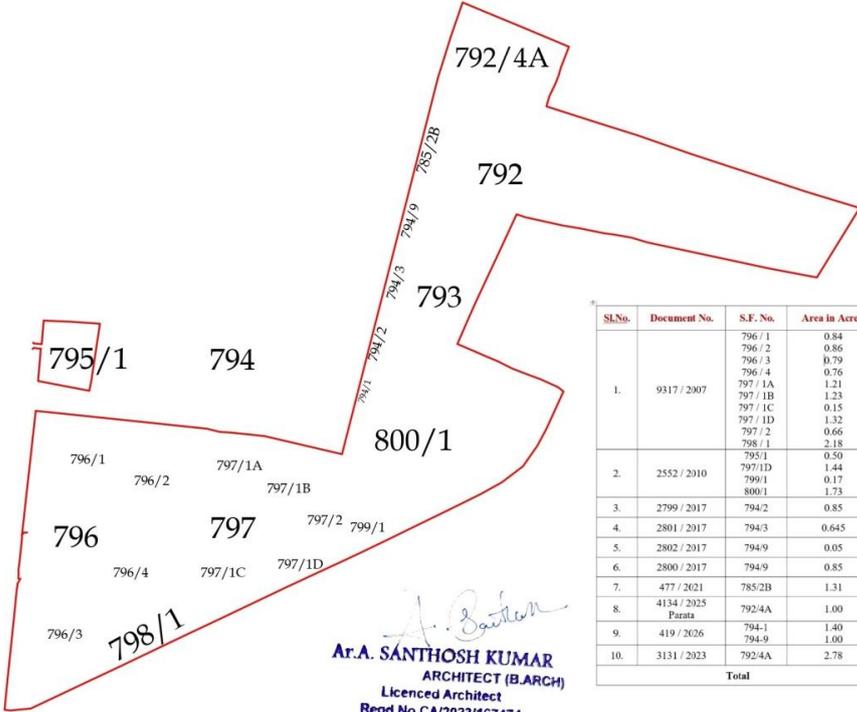
The proposed **Ramachandra Deemed to be University (R-DTBU)** will be established in **Eluru, Andhra Pradesh**, on a well-planned and expansive campus, with a clear vision to emerge as a **multidisciplinary, transdisciplinary, and technology-enabled university** under the **Distinct Category (Existing Institution)** of the UGC.

The campus is envisaged as a **smart, sustainable, and inclusive academic ecosystem**, integrating advanced digital infrastructure, green and energy-efficient architecture, innovation and research spaces, and community-oriented facilities. Infrastructure development is meticulously planned in **phased expansion**, fully complying with the norms and guidelines of **UGC, AICTE, statutory councils, and other regulatory authorities**, to holistically support academic delivery, research excellence, residential life, and societal engagement for students and faculty.

### **9.1 Existing Infrastructure – Land, Buildings, Labs, Facilities**

- **Total Land Area: 23.725 Acre** (one piece of land - leased for 30 Years by Ramachandra Educational Foundation)
- **Total build-up Area: 27761.40 sq.m**
- **The land documents are provided in Annexure 21.12.**
- **The land and building ownership with Ramachandra Educational Foundation are provided in Annexure 21.14 (Lease Deed for 30 years).**

Site Plan – Campus

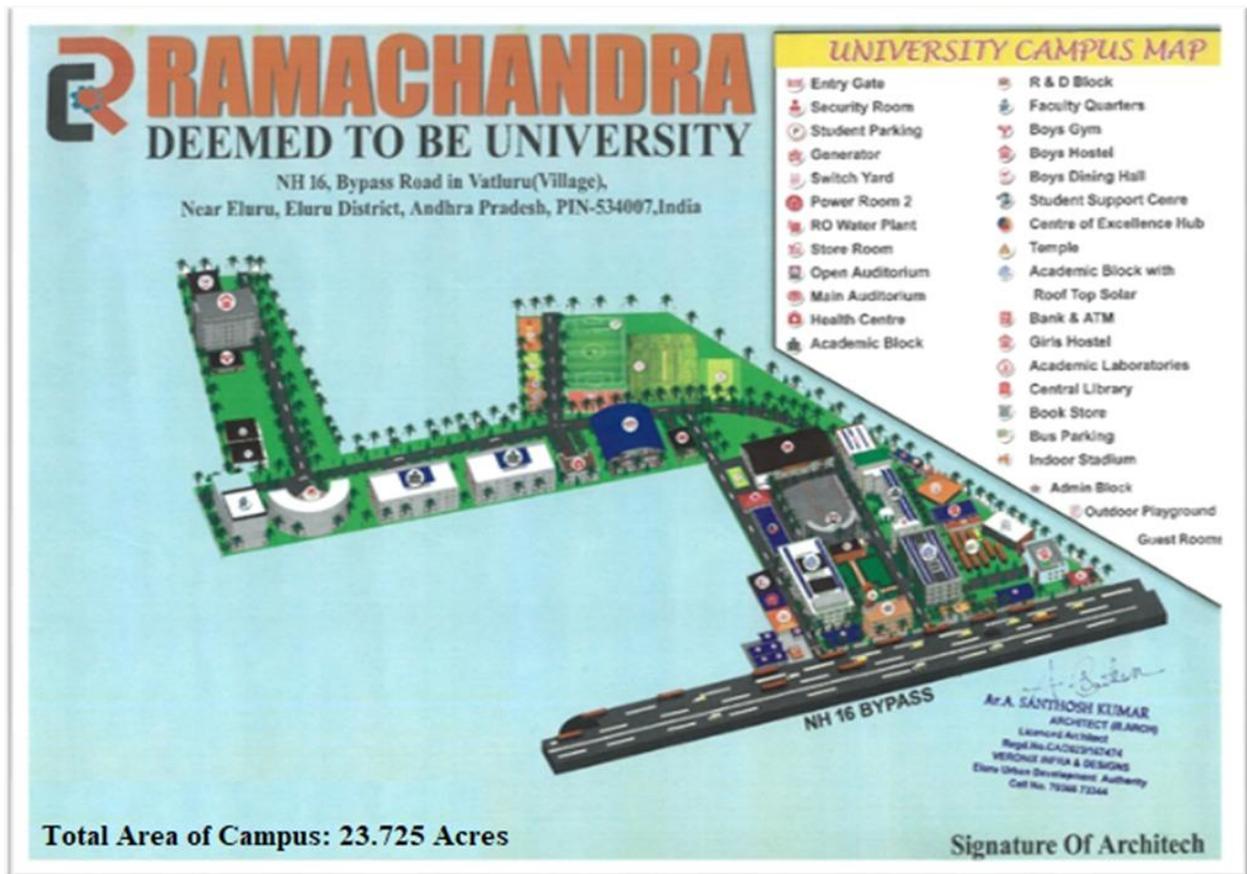


Sl.No.	Document No.	S.F. No.	Area in Acres.	Total area in Acres.
1.	9317 / 2007	796 / 1	0.84	10.00
		796 / 2	0.86	
		796 / 3	0.79	
		796 / 4	0.76	
		797 / 1A	1.21	
		797 / 1B	1.23	
		797 / 1C	0.15	
		797 / 1D	1.32	
		797 / 2	0.66	
		798 / 1	2.18	
2.	2552 / 2010	795/1	0.50	3.84
		797/1D	1.44	
		799/1	0.17	
3.	2799 / 2017	800/1	1.73	0.85
		794/2	0.85	
4.	2801 / 2017	794/3	0.645	0.645
5.	2802 / 2017	794/9	0.05	0.05
6.	2800 / 2017	794/9	0.85	0.85
7.	477 / 2021	785/2B	1.31	1.31
8.	4134 / 2025 Parata	792-4A	1.00	1.00
9.	419 / 2026	794-1	1.40	2.40
10.	3131 / 2023	794-9	1.00	2.78
		792-4A	2.78	
Total				23.725

Total Area of Campus = 23.725 Acres

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 Eluru Urban Development Authority  
 Cell No. 70366 73344

## Master Plan – Campus



**Table 9.1 - Land Area Details (Provided in Annexure 21.8 & 21.12)**

Sl.No.	Document No.	Date of Registration	Survey Nos.	Area in Acres	Total Area in Acres.
1.	9317/2007 Eluru SRO	25.08.2007	796/1	0.84	10.00
			796/2	0.86	
			796/3	0.79	
			796/4	0.76	
			797/1A	1.21	
			797/1B	1.23	
			797/1C	0.15	
			797/1D	1.32	
			797/2	0.66	
			798/1	2.18	
2.	2552/2010 Vatluru SRO	30.07.2010	795/1	0.50	3.84
			797/1D	1.44	
			799/1	0.17	
			800/1	1.73	
3.	2799/2017 Vatluru SRO	22.11.2017	794/2	0.85	0.85
4.	2801/2017 Vatluru SRO	22.11.2017	794/3	0.645	0.645
5.	2802/2017 Vatluru SRO	22.11.2017	794/9	0.05	0.05
6.	2800/2017 Vatluru SRO	22.11.2027	794/9	0.85	0.85
7.	477/2021 Vatluru SRO	12.02.2021	785/2B	1.31	1.31
8.	4134/2025 Parata Vatluru SRO	27.10.2025	792/4A1	1.00	1.00
9.	419/2026 Vatluru SRO	05.02.2026	794-1A	1.40	2.40
			794-9	1.00	
10.	3131/2023 Vatluru SRO	02.08.2023	792/4A2	2.78	2.78

Total Land Area	<b>23.725 Acre</b>
Registered at Sub Registrar Office of Eluru & Vatluru, Eluru, Andhra Pradesh	

The land documents are provided in **Annexure 21.12**. The approval of the buildings are provided in **Annexure 21.8**.

**Table 9.2 - Building - Built-up Area Details (Provided in Annexure 21.8 & 21.12)**

<b>Sl.No.</b>	<b>Name of the building &amp; Floor details</b>	<b>Total area in Sq.m.</b>
1	SARVESTA (Block-A) & Ground, First, Second & Third Floor	5961.00
2	VIDHRA (Block-B) & Ground, First, Second & Third Floor	4422.00
3	SHASTRA (Block-C) & Ground, First, Second & Third Floor	7903.00
4	BLOCK-D & Ground, First, Second & Third Floor	1363.00
5	BLOCK-E & Ground Floor	200.00
6	BLOCK-F & Ground Floor	412.00
7	BLOCK-G & Ground Floor	206.00
8	BLOCK-H & Ground Floor	482.00
9	BLOCK-I & Ground Floor	470.00
10	BLOCK-J & Ground, First, Second & Third Floor	1144.00
11	KSHETRA & Ground, First Floor	1109.00
12	Administrative Block & Ground, First, Second & Third Floor	1852.75
13	AUDITORIUM BLOCK	2100.00
14	BLOCK-S1 & Ground Floor	130.00
15	BLOCK-S2 & Ground Floor	6.65
<b>Total Area</b>		<b>27761.40</b>

**Table 9.3 - Building - Administrative, Academic, Library and Other Facilities (Existing)**

<b>Sl.No.</b>	<b>Category</b>	<b>Total area in Sq.m.</b>
1	Administrative Area	3207.12
2	Academic Area	12372.1
3	Library Area	927.13
4	Other Facilities Area	11255.05
<b>Total Built-up Area</b>		<b>27761.40</b>

**Table 9.4 - Additional Building - Administrative, Academic, Library and Other Facilities (Proposed for Future Development)**

<b>Sl.No.</b>	<b>Category</b>	<b>Total area in Sq.m.</b>
1	Academic Blocks	18000
2	R&D, Innovation & Incubation	8000
3	Faculty & Staff Quarters	6000
4	Students Amenities Center	3000
5	Hostels	2000
<b>Total Built-up Area</b>		<b>37000</b>

The details of the Land and Buildings are provided in in **Annexure 21.8 & 21.12.**

## Campus Photographs



**Figure 9.1 : Ramachandra College of Engineering – Campus View**



**Figure 9.2 : Academic Block - VIDHRA Block**



**Figure 9.3 : Academic Block - SARVESTA Block**



**Figure 9.4 : Academic Block - SASTHRA Block**



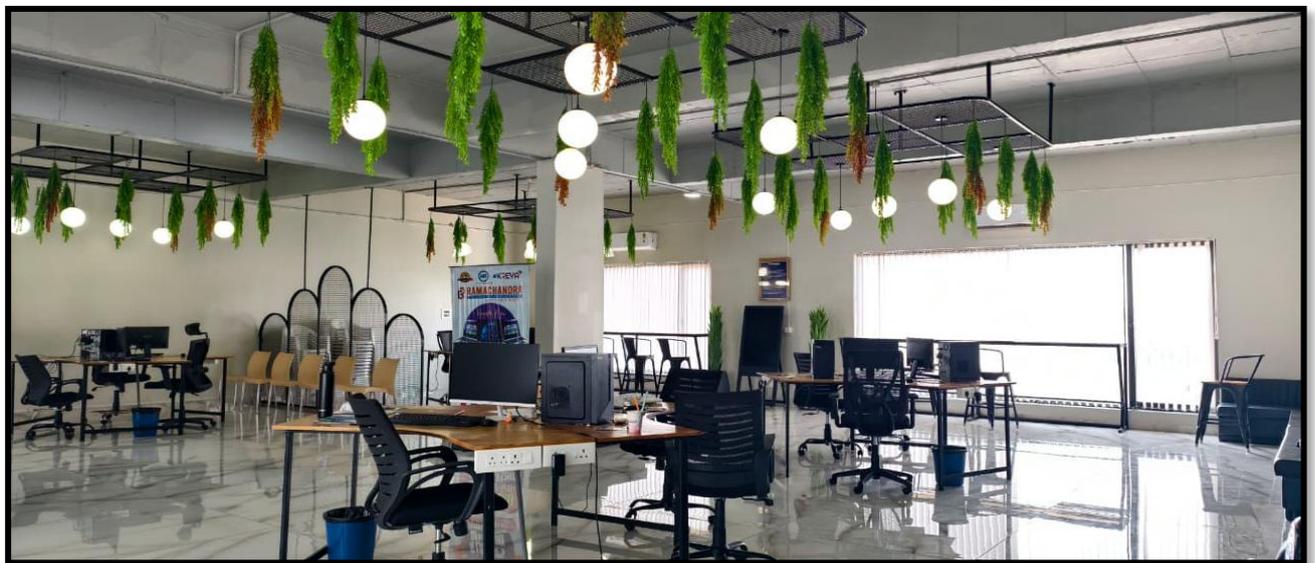
**Figure 9.5 : Smart Class Rooms**



**Figure 9.6 : Training and Placements & Group Discussion Rooms**



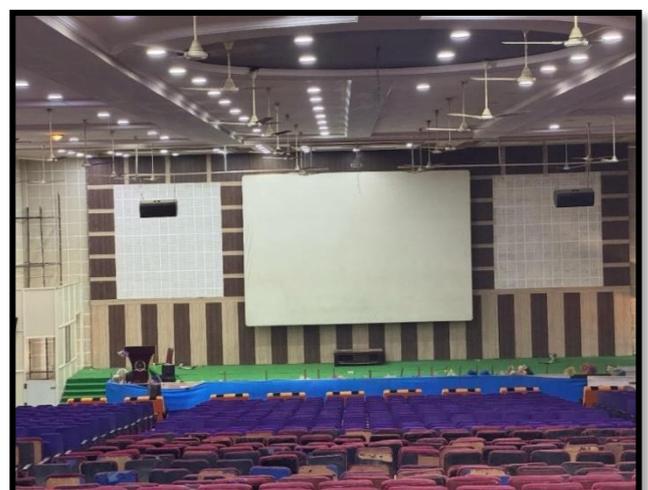
**Figure 9.7 : Computer Centres**



**Figure 9.8 : Work Station for Research Activities**



**Figure 9.9 : Central Library**



**Figure 9.10 : Auditorium**



Figure 9.11 : Open Auditorium



Figure 9.12 : Health Center



Figure 9.13 : Mineral Water Plant



Figure 9.14 : Canteen facility



**Figure 9.15 : Boys' Hostel**



**Figure 9.16 : Girls' Hostel**



**Figure 9.17 : Solar Panels on Roof of Blocks**

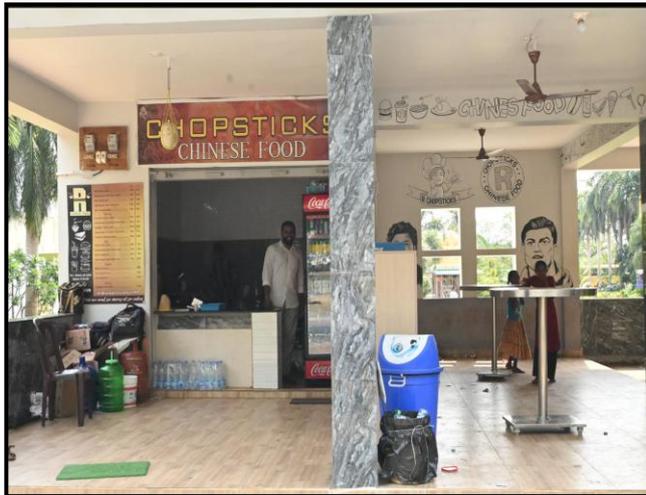


Figure 9.18 : Food Court



Figure 9.19 : Book Store



Figure 9.20 : Gymnasium



Figure 9.21 : Sports and Games





**Figure 9.22 : Admin Block of the Proposed Ramachandra Deemed to be University**

## 9.2 Academic Infrastructure

Each School within R-DTBU will have **state-of-the-art academic buildings**, designed for modular and flexible learning spaces. Other facilities available in the existing campus are tabulated below.

**Table 9.5 - Other Facilities available in Campus**

Sl. No.	Facilities	Numbers	Area in Sq.m
1	Seminar Halls	5	660.00
2	Board Rooms	2	102.36
3	Conference Halls	2	98.67
4	Project Laboratories	3	124.35
5	Skill Centers	2	88.56
6	Research Laboratories	1	89.28
7	Controller of Examinations	2	209.20
8	Library	1	927.13
9	Medical Center	1	34.5
10	Auditorium	1	1118.28
11	Students Common Rooms	5	221.43
12	Play Area – Cricket	1	12871.18
13	Play Area – Basket ball	1	448

14	Play Area – Football	1	4 180.63
15	Play Area – Indoor	1	2000.00
16	Play Area – Outdoor	1	3500.00
17	Yoga / Meditation Hall	1	66.00
18	Counseling Center	1	35.25
19	Alumni Office	1	33.00
20	Admission Office	1	327.77
21	Finance Office	1	33.00
22	Students Affairs Office	1	60.00
23	Academic Council / IQAC	1	30.85
24	Chancellor Office	1	121.50
25	Vice Chancellor Office	1	115.85
27	Registrar Office	1	110.15
28	Director / Deans / Heads Office	22	477.83
29	Staff Cabins	58	1522.07
30	Boys Hostel	24	677.73
31	Girls Hostel	25	554.50

The campus master plan ensures **pedestrian-friendly, Wi-Fi enabled and barrier-free design**, compliant with the statutory norms.

#### Key Features:

- Smart classrooms with interactive panels and AV systems
- Seminar halls and conference rooms for academic events
- Program-specific laboratories and studios
- Digital learning spaces supporting hybrid and flipped classrooms
- Dedicated faculty rooms and discussion zones
- Centralized academic administration with ERP-based timetable and attendance systems

### 9.3 Research and Innovation Infrastructure

R-DTBU will create **Centres of Excellence (CoEs)** in emerging and interdisciplinary domains in addition to the existing centres:

1. Centre of Excellence in Semiconductor Technology and Advanced Electronics
2. Centre of Excellence in Artificial Intelligence, Data Science and Advanced Computing
3. Centre of Excellence in Robotics, Automation and Intelligent Manufacturing
4. Centre of Excellence in Sustainable Technologies and Climate Systems
5. Centre of Excellence in Entrepreneurship, Innovation and Start-up Analytics
6. Centre of Excellence in Indian Knowledge Systems and Wellness Sciences
7. Centre of Excellence in Human Behaviour, Psychology and Social Development

## 9.4 Library and Learning Resource Centre (LLRC)

The Central Library will function as a **hybrid knowledge hub** with both physical and digital repositories.

### Facilities Include:

- 3824 Titles and 28,672 Volumes of Books
- E-books of 10705 and E-Journals of 860 through DELNET
- E-books of 10327 and E-journals of 10100 through KNIMBUS
- Access to e-resources: **DELNET, KNIMBUS, NDL, INFLIBNET, IEEE, Springer, Scopus, ScienceDirect, ProQuest**
- Digital reading pods and group discussion rooms
- Institutional Knowledge Repository (IKR) for publications, theses, and patents
- **NewGen Lib** Library Management Software

## 9.5 Residential, Hostel and Dining Facilities

Additionally, separate **boys' and girls' hostels** are planned, each with:

- 500-student capacity (Phase-I: 250 each)
- Furnished rooms, study halls, Wi-Fi, gym, indoor games
- 24x7 security, CCTV, and solar-powered hot water systems
- Hygienic, multi-cuisine mess with smart dining card access

### Faculty and Staff Quarters:

#### Phase-I (First 3 Years)

- Accommodation for 30 families including Vice Chancellor, Pro Vice Chancellors, Registrar, Deans and Faculty members
- Accommodation for 20 technical and supporting staff members

#### Phase-II (3 to 6 Years)

- Accommodation additional 20 families of Faculty members
- Accommodation for additional 20 technical and supporting staff members

## 9.6 Health, Sports, and Recreation Facilities

- **Health Centre:** A medical clinic with resident nurse and further medical support with Eluru-based Hospitals for advanced care.
- **Sports Complex:** 400-m track, football/cricket ground, basketball and tennis courts, indoor badminton, gymnasium.
- **Cultural Centre:** Amphitheatre, auditorium (1,000 seating), music & fine arts rooms.
- **Counselling and Wellness Centre:** Mental health support, meditation spaces, yoga pavilion.

## 9.7 Green Campus and Sustainability Systems

R-DTBU will operate as a **Net-Zero Carbon and Green Campus**, integrating environmental stewardship into its core operations.

### Sustainability Measures:

- 500-kW solar PV power generation
- Rainwater harvesting and groundwater recharge pits
- Sewage Treatment Plant (STP) and greywater recycling
- Waste segregation and composting units
- E-mobility (electric shuttle, bicycles) for internal transport
- Green audit and energy audit annually through external agency

## 9.8 Safety, Security, and Accessibility Systems

- Campus-wide **CCTV surveillance** and biometric access control
- Fire detection and suppression systems compliant with NBC 2016
- **Disaster Management Cell** with trained response team
- **Barrier-free design**: ramps, elevators, tactile flooring, accessible restrooms
- Anti-ragging and grievance redressal systems under statutory committees

## 9.9 Transportation and Connectivity

- University-owned fleet of buses covering entire rural areas in **Eluru and nearby Districts** covering 80 km radius.
- EV charging points and solar-powered parking bays
- Proximity to **NH-16** (Chennai–Kolkatta Highway) and **Vijayawada Airport (35 km)**

## 9.10 Support Services and Amenities

- Canteen, bookshop, stationery, bank/ATM, and post office
- Student activity centre and incubation café
- Student stores
- Day-care centre and guest house
- Green landscaping and rain-garden spaces

## 9.11 Year-wise Infrastructure Expansion Plan (2026–2032)

<b>Number of Classrooms <u>required</u> for all the existing and proposed Programmes for the Year-1</b>	<b>Number of Classrooms <u>available</u> for all the existing and proposed Programmes for the Year-1</b>
<b>58 + 3 = 61</b>	<b>58 + 5 = 63</b>

Year	Key Infrastructure Components
2026-27	Existing Infrastructure will be used for Academic Functioning. Construction of Additional Academic Block to begin.
2027-28	Existing Infrastructure & New Academic Block will be used for Academic Functioning. Construction of new Faculty & Staff Quarters to begin. Green Campus facilities to strengthen.
2028-29	Additional Academic Block, Additional Hostels, Central Auditorium, Research & Innovation Centres, CoEs, Incubation Hub, Health Centre, Sports Complex to begin.
2029-30	Construction of Architecture Block to begin.
2030-31	Full smart-campus integration, expansion of Digital and AI systems in campus operations.
2031-32	Fully-Functional University campus.



*“The University commits to developing robust, safe, inclusive and sustainable infrastructure and support systems that enable quality teaching, research, innovation and student well-being.”*

## Chapter-10

## CAMPUS INFORMATION AND COMMUNICATION TECHNOLOGY PLAN



*“Digital infrastructure is the backbone of a modern university, enabling connected learning, smart governance and innovation-driven education.”*

The Campus ICT Plan of **Ramachandra Deemed to be University** envisions the development of a **future-ready, intelligent and digitally empowered campus ecosystem**. The plan is structured to comprehensively support **high-quality teaching–learning processes, advanced research and innovation, efficient governance systems and inclusive student support services**.

The ICT framework is aligned with:

- **NEP 2020**
- **Digital India Mission**
- **UGC and AICTE ICT Guidelines**
- National cybersecurity and data protection standards

The University aspires to function as a **technology-driven, multidisciplinary institution**, where digital infrastructure becomes a strategic enabler of academic and institutional transformation.

The vision of the ICT Plan is to develop a **smart, secure, connected and technology-enabled campus** that enhances academic excellence, research productivity, innovation culture and seamless digital governance at Ramachandra Deemed to be University.

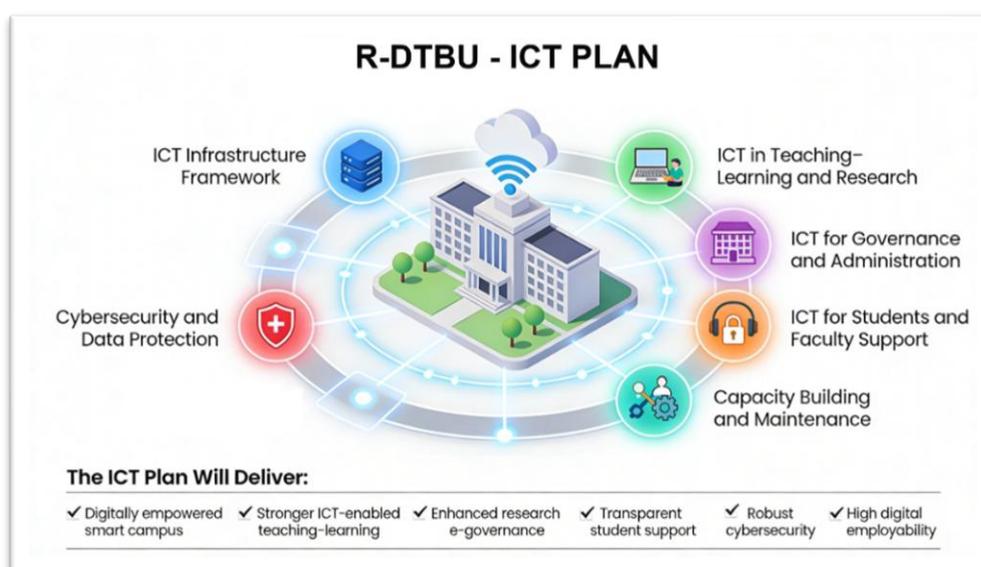


Figure 10.1: Campus ICT plan under the proposed Ramachandra DTBU

## Objectives

The key objectives of the Campus ICT Plan are to:

- Integrate ICT across **academic, administrative and research functions**
- Enable **24×7 digital access** to learning resources, laboratories and support services
- Facilitate **hybrid and blended learning models** in line with NEP 2020
- Provide **cloud-based infrastructure** for research computing, data storage and collaboration
- Ensure robust **data security, privacy protection and cybersecurity governance**
- Implement **e-governance systems** for transparent, efficient and accountable administration
- Support continuous **digital upskilling of faculty, staff and students**
- Build a **resilient and scalable ICT ecosystem** adaptable to emerging technologies

## 10.1 ICT Infrastructure Framework

Ramachandra Deemed to be University will establish a **robust, scalable and modern ICT infrastructure** encompassing networking, computing, storage, software platforms and IT support services.

### A. Core ICT Infrastructure

- High-speed **campus-wide Wi-Fi** supported by optical fiber backbone
- Multi-gigabit backbone with **Layer-3 managed switches**
- Intelligent network management using **Software-Defined Networking (SDN)**
- Cloud-enabled virtual servers and storage solutions
- Redundant power supply and UPS systems for all critical ICT facilities

### B. University Data Centre

A centralized and secure **University Data Centre** will be established with:

- Virtualization servers
- SAN/NAS storage systems
- Enterprise-grade firewalls and security appliances
- High-availability clustering
- Disaster recovery (DR) and automated backup systems

### C. Computing Facilities

- Dedicated computing laboratories for Engineering, Computing, AI, Data Science and Cyber Security
- GPU-enabled systems for **AI, ML and deep learning**
- XR-enabled immersive technology laboratories
- Coding labs with **cloud-based Integrated Development Environments (IDEs)**

## D. Smart Classrooms

All classrooms will be progressively converted into **ICT-enabled smart classrooms** equipped with:

- Interactive smart boards
- High-definition projectors
- Lecture Capture Systems (LCS)
- Video conferencing facilities
- Digital podiums and multimedia systems

## E. Research Computing Infrastructure

- High-Performance Computing (HPC) clusters
- Access to national research networks such as **NKN, PARAM and Government Cloud platforms**
- AI-enabled supercomputing nodes for advanced analytics, simulations and modelling

## 10.2 ICT in Teaching–Learning and Research

### Teaching–Learning Integration

- University-wide **Learning Management System (LMS)** for course delivery, assessments, attendance and analytics
- Blended learning using synchronous and asynchronous digital modules
- Virtual laboratories for Computing, AI, Cyber-Physical Systems and Health Sciences
- Secure online proctoring systems for examinations
- Integration of MOOCs through **SWAYAM, NPTEL, Coursera and edX**

### Research Integration

- Access to leading digital research databases (Scopus, IEEE, Springer, Elsevier)
- Research data management and collaboration tools
- AI-enabled tools for literature review, plagiarism detection and research analytics
- Institutional digital repositories for theses, dissertations and publications
- Collaborative platforms such as **Google Workspace and Microsoft Teams**

### Innovative Learning Environments

- AR/VR/XR-based immersive learning studios
- Simulation laboratories for Digital Health, Robotics and Industry 5.0
- Digital content development and media production studios

## 10.3 ICT for Governance and Administration

Ramachandra Deemed to be University will adopt a **fully integrated e-governance framework** to ensure transparency, efficiency and real-time decision-making.

### Key Modules

- Enterprise Resource Planning (ERP) system covering:

- Admissions and enrolment
- Fee and finance management
- Student information systems
- Examination automation
- HR, payroll, leave and attendance
- Hostel, transport and asset management
- Digital document management system
- E-office and e-file workflow systems
- Online grievance redressal mechanisms
- Smart campus security systems (biometric access and IP-based CCTV surveillance)
- Mobile applications for students and faculty

## 10.4 ICT for Student and Faculty Support

### Student Support Services

- Student portal for academic information, attendance, payments and schedules
- Career and placement portal for internships, employability and e-portfolio development
- 24×7 access to digital library resources
- Online counselling and tele-health support
- Coding practice platforms and cloud sandboxes
- Online grievance and query management systems

### Faculty Support Services

- Faculty portal for course management, grading and research tracking
- Access to digital content creation tools
- Remote access to LMS, academic dashboards and research resources
- Cloud storage and advanced computing facilities
- Online faculty development programmes and certification workshops

## 10.5 Cybersecurity and Data Protection

A comprehensive **Cybersecurity and Data Protection Framework** will be implemented to ensure confidentiality, integrity and availability of institutional data.

### Core Components

- Enterprise-grade firewalls and intrusion detection/prevention systems
- Multi-factor authentication (MFA)
- Role-based access controls
- Periodic cybersecurity audits
- Automated backup and disaster recovery mechanisms
- Cybersecurity awareness and training programmes

### Policies

- IT Security Policy
- Data Protection and Privacy Policy
- Acceptable Use Policy

- Cybersecurity Incident Response Policy

All systems will comply with **CERT-In, MeitY guidelines and international best practices.**

## **10.6 Capacity Building and Maintenance**

### **Capacity Building**

- Continuous ICT training for faculty and staff
- Digital literacy programmes for students
- Certification workshops in AI, cloud computing and cybersecurity
- Annual ICT competency development plans

### **Maintenance Framework**

- Dedicated ICT Department with:
  - Network engineers
  - System administrators
  - LMS coordinators
  - Helpdesk and support teams
- Annual Maintenance Contracts (AMC) for hardware and software
- Preventive maintenance schedules
- Asset lifecycle management systems

## **10.7 Phased Implementation Plan**

The ICT Plan will be implemented in a **phased and systematic manner.**

### **Phase I (Years 1–2)**

- Core network and data centre setup
- 50% smart classroom implementation
- LMS deployment
- Basic ERP modules
- Initial computer laboratories

### **Phase II (Years 2–4)**

- Full smart classroom conversion
- HPC and research computing facilities
- XR and advanced research labs
- Expanded ERP functionalities
- Technology Business Incubator (TBI) ICT infrastructure

### **Phase III (Years 4–5)**

- Advanced AI and cloud data centres
- Industry 5.0 simulation environments
- Smart campus IoT systems
- Fully integrated virtual university ecosystem

The Campus ICT Plan will result in:

- A digitally empowered and smart campus ecosystem
- Enhanced teaching–learning effectiveness through ICT integration
- Increased research productivity and innovation output
- Transparent, efficient and accountable governance
- Improved student satisfaction and engagement
- Strong cybersecurity and data protection environment
- Graduates with high digital competency and employability

**Table 10.1: Existing ICT Facilities at Ramachandra College of Engineering**

<b>Sl. No.</b>	<b>Category</b>	<b>ICT Facility / Item</b>	<b>Specification / Description</b>	<b>Current Status</b>	<b>Numbers / Capacity</b>
1	Network Infrastructure	Optical Fiber Backbone	Campus-wide OFC connectivity linking academic blocks, labs, library and administration	Available	Jio 1 GBPS Unlimited Rail Net 100 MBPS 1000 Users
2	Network Infrastructure	Managed Network Switches	Layer-2 / Layer-3 managed switches for LAN connectivity	Available	Layer 2 - 10 Nos Layer 3 - 5 Nos
3	Network Infrastructure	Campus Wi-Fi	Wi-Fi access points in classrooms, labs, library and hostels	Available	Wi-Fi Access points (Classrooms, Labs) – 40 Library, Common Areas and Hostels - 10
4	Internet Connectivity	Internet Leased Line	High-speed broadband / leased line connectivity	Available	1100 MBPS
5	Computing Facilities	Desktop Computers	Desktop systems for academic departments and computer laboratories	Available	1250 Systems and 12 labs
6	Computing Facilities	Laptop Systems	Laptops for faculty and administrative use	Available	25 Laptops
7	Computing Facilities	Computer Laboratories	Dedicated labs for Engineering and Computing programmes	Available	38
8	Teaching–Learning ICT	Smart Classrooms	Classrooms equipped with LCD projectors / smart boards	Available	65 Classrooms (48 Rooms with Smart Boards & 17 Rooms with

					LCD Projectors)
9	Teaching– Learning ICT	LCD / LED Projectors	Multimedia projectors for classroom teaching and seminars	Available	6 Rooms
10	Teaching– Learning ICT	Audio Systems	Public address and audio systems in seminar halls	Available	6 Rooms
11	Academic Software	Licensed Operating Systems	Windows / Linux OS for academic use	Available	4
12	Academic Software	Programming Tools & IDEs	Compilers, IDEs and development tools for student labs	Available	1000 users
13	Digital Learning	Learning Management Support	Digital platforms for sharing course materials and assessments	Available	CodeNow with 4000 Users Support
14	Library ICT	Digital Library	Computers with access to e-journals and e-books	Available	35 Nos
15	Library ICT	E-Resource Access	Access to online academic resources and databases	Available	NDL, NPTEL, KNIMBUS, DELNET
16	Administration ICT	ERP / MIS System	Software for admissions, student records and academic administration	Available	BEEs
17	Administration ICT	Examination Software	Digital support for internal assessment and result processing	Available	BEEs
18	Data Management	Local Servers	Servers for academic and administrative data storage	Available	5 Nos
19	Power Backup	UPS Systems	Uninterrupted Power Supply for labs and critical ICT systems	Available	750KVA UPS
20	Security Systems	CCTV Surveillance	IP / digital CCTV cameras across campus	Available	220 Cameras
21	Communication	Video Conferencing Facilities	Facilities for online meetings, webinars and guest lectures	Available	G – Suit (Unlimited)
22	Support Services	IT Support & Maintenance	Dedicated technical staff for ICT maintenance	Available	8 Members



*“Ramachandra Deemed to be University commits to developing secure, scalable and technology-enabled ICT infrastructure that supports teaching-learning, research, governance and student services.”*

## Chapter-11

**GOVERNANCE AND ADMINISTRATIVE FRAMEWORK PLAN**

*“Strong governance is the cornerstone of institutional excellence, accountability and sustainable growth.”*

Ramachandra Deemed to be University (R-DTBU), Eluru, shall function as a **multidisciplinary, inclusive and outcome-oriented university**, rooted in the legacy of Ramachandra College of Engineering.

Its governance framework ensures **academic autonomy, fiscal responsibility, transparency, ethical conduct and participatory decision-making** across Schools, Departments and Centres.

**11.1 Governance****Guiding Principles**

- Full compliance with **UGC (Deemed to be University) Regulations 2023, Viksit Bharat Shiksha Adhishthan Bill 2025**, relevant **statutory councils (AICTE) and NEP 2020**.
- **Autonomy with accountability, academic freedom with quality assurance, inclusivity, ethics and E-governance.**
- Decisions grounded in the Deemed to be University’s motto ‘**Empowering Minds, Enriching Society**’.

**Statutory and Academic Bodies**

- Executive Council (Principal executive authority)
- Academic Council (Principal academic authority)
- Finance Committee
- Boards of Studies (by School/Department)
- Standing Committee on Academic Affairs
- Planning & Monitoring Board (advisory/strategic)
- Internal Quality Assurance Cell (IQAC)
- Students’ Quality Assurance Cell (SQAC)

**Deemed to be University-Level Non-Statutory and Advisory Committees**

- Anti-Ragging Cell (ARC)
- Internal Complaints Committee (ICC)
- Grievance Redressal Cell (GRC)
- Examination & Disciplinary Committee (EDC)
- SC/ST Cell
- OBC Cell

- Equal Opportunity Cell (EOC)
- Women's Empowerment Cell (WEC)
- Gender Sanitization Cell (GSC)
- Student Welfare Committee (SWC)
- Research Advisory Committee (RAC)
- Research & Development Cell (RDC)
- Curriculum Development Committee (CDC)
- Institutional Ethics Committee (IEC)
- Library Advisory Committee (LAC)
- Admission Committee (AC)
- Purchase Committee (PC)
- ICT & E-Governance Committee (ICTEC)
- Games & Sports Committee (GSC)
- Cultural Committee (CC)
- Internship, Career Counselling & Placement Cell (ICPC)
- Alumni Engagement Cell (AEC)
- Fee Fixation Committee (FFC)
- Entrepreneurship Development Cell (EDC)
- Institution Innovation Council (IIC)
- Industry Institute Partnership Cell (IIPC)
- NEP Implementation Cell (NEP-IC)
- SDG Implementation Cell (SDG-IC)
- Centre for University Publication (CUP)
- Regulatory and Compliance Cell (RCC)
- Examination Reformation Committee (ERC)
- Scholarship and Financial-Aid Committee (SFC)
- Centre for Academic Staff Development (CASD)
- Minority Cell
- Differently-Abled Students Support Cell

Other Committees as may be prescribed by regulatory agencies or established by the Deemed to be University from time to time.

### **Decision Architecture**

- Academic and policy proposals originate at BoS/CDC, vetted by Deans, cleared by AC and ratified by EC on Finance Committee advice.
- Quality oversight by IQAC; statutory compliance by Registrar and Designated Officers.
- Digital governance through ERP, LMS, ABC integration, NAD/Digilocker and MIS dashboards.

## **11.2 Organisational Structure**

Chancellor → Vice-Chancellor → Pro Vice-Chancellor(s) → Deans (Schools) → Heads of Departments → Faculty/Staff.

Functional Directors lead Centres (Research & Innovation, Quality, Outreach, ICT, COEs, etc.).



**Tenure:**

- Rotational teachers: up to 1 year (or until they hold the post).
- Deans (rotational): up to 3 years or till they hold office.
- UGC/Sponsoring Body nominees: 3 years.
- Ex-officio as per appointment term.

**Core powers/functions:**

- Approve creation of Schools/Departments/Centres, programs, posts and major projects.
- Appoint faculty/academic staff based on Selection Committee recommendations; approve Professors of Practice/Adjunct/Visiting/Emeritus.
- Approve budgets, fees, scholarships, audited accounts, financial rules and investments.
- Enforce service rules, disciplinary matters and E-governance policies.
- Ratify urgent actions taken by VC; approve MoUs/strategic partnerships.

**Meetings & quorum:** At least four per year ( $\geq 2$  per semester); 7-day notice (shorter for emergencies with reasons recorded); quorum: one-third; decisions by simple majority; casting vote to Chair.

**11.4 Academic Council**

*Principal academic body supervising programs, curricula, assessment, research standards and academic collaboration.*

**Composition (aligned to UGC):**

- Vice-Chancellor - Chairperson
- Pro-Vice-Chancellor - Member
- All Deans and Heads - Members
- Up to 10 Professors (excl. Deans/HoDs) by rotation - Members
- Up to 5 Associate Professors (excl. HoDs) by rotation - Members
- Up to 5 Assistant Professors by rotation - Members
- Six eminent external experts (academia/industry/regulatory) - Members
- Registrar - Ex-officio Secretary

**Tenure:** Nominated/non-ex-officio members - 3 years, with rotation ensuring broad representation.

**Core powers/functions:**

- Frame/approve programme structures, syllabi, academic regulations and assessment schemes (CBCS/OBE/ABC, multi-entry/exit).
- Recommend institution/closure of programmes, Schools, Centres.

- Set norms for admissions, attendance, evaluation/grading, academic integrity, awards/medals.
- Promote interdisciplinary offerings, internships, industry projects, MOOCs and internationalization.
- Periodic review of department performance and student learning outcomes.

**Meetings & quorum:** Minimum four per year; quorum: one-third; majority decisions; circulation permitted for urgent items.

### 11.5 Board of Studies (BoS)



*Foundational academic unit for curriculum, pedagogy and continuous improvement at School/Department level.*

#### **Composition (per School/Department):**

- Dean/HoD - Chair
- All Professors of the unit - Members
- Two Associate Professors (rotation) - Members
- Two Assistant Professors (rotation) - Members
- Two external experts (academia/industry/regulatory) - Co-opted Members
- One alumni/industry invitee (programme-specific) - Optional

#### **Functions:**

- Design and revise curricula, syllabi, course outcomes, assessment blueprints and rubrics (OBE-aligned).
- Recommend programme electives, value-added/skill courses, internship/project modalities and credit mappings (ABC/NHEQF/NSQF alignment).
- Recommend research supervisors/panels (where applicable) and list of learning resources/EdTech platforms.
- Submit proposals to Academic Council via the Dean.

**Frequency:** At least twice a year; additional meetings as required for new launches/revisions.

### 11.6 Finance Committee



*Fiscal advisory and oversight body for prudent resource planning and utilization.*

### **Composition:**

- Vice-Chancellor - Chairperson
- Pro-Vice-Chancellor - Member
- Three members nominated by the Executive Council (at least one EC member) - Members
- One representative nominated by UGC/Commission - Member
- Three members nominated by the Chancellor - Members
- Finance Officer - Ex-officio Secretary

### **Functions:**

- Scrutinize annual budget, revised estimates, non-budgeted proposals and creation of posts.
- Recommend limits for recurring/non-recurring expenditure consistent with income/corpus.
- Review annual accounts, audit observations and fund-flow/investment plans before EC approval.
- Ensure financial discipline, transparency and statutory compliance.

**Meetings & quorum:** At least four per year; quorum: one-third.

## **11.7 Selection Committees**

**Principle:** Merit-based, transparent recruitment in line with UGC qualifications/statutory councils; reservation and diversity as per law; due diligence on credentials and research integrity.

### **A. Faculty (Professor / Associate Professor / Assistant Professor)**

- **Chair:** Vice-Chancellor
- **Dean of the concerned School**
- **Head of Department/Director (where applicable)**
- **Two subject experts** (external) empanelled/approved as per norms
- **One nominee of the Sponsoring Body/Chancellor** (optional where statutes provide)
- **Registrar/HR Head** — Member-Secretary (non-voting)

Functions: Screening, seminar/classroom talk, interaction, API/credit/portfolio evaluation, selection panel recommendations with merit order and reservation roster compliance.

### **B. Professors of Practice / Adjunct / Visiting / Emeritus**

- VC (Chair), Dean, HoD, two external experts (incl. senior industry/clinical leader, as relevant) and Registrar/HR.
- Evaluate professional eminence/impact, practice portfolios and contribution plan (teaching, mentoring, industry liaison, innovation).

### C. Non-Teaching/Officers (Registrar/FO/CoE/Directors/Managers)

- VC (Chair), Pro-VC (if any), concerned Dean/Functional Head, external expert (finance/legal/admin as relevant) and HR Head.
- Transparent tests/interviews and background verification.

#### General norms:

- Panel validity period; conflict-of-interest declarations; minutes with scoring grids; EC approval for appointments; offer letters with probation/tenure and performance KPIs.

## 11.8 Internal Quality Assurance Cell (IQAC)



*Objective: Institutional mechanism for planning, guiding and monitoring quality enhancement across academics, research, administration, outreach and governance.*

#### Composition (balanced and inclusive):

- Vice-Chancellor - Chair
- Pro-VC and senior administrative officers
- 3-8 faculty nominees (across Schools)
- One management nominee
- 1-2 nominees from local society/students/alumni
- 1-2 nominees from employers/industry/stakeholders
- Senior faculty as IQAC Coordinator/Director

#### Key functions/deliverables:

- Quality benchmarks; academic/admin audits; data culture and MIS dashboards.
- Learner-centric practices, FDP/CPD plans and T-L-E innovation (LMS, MOOCs, blended).
- Feedback systems (students/parents/alumni/employers) and action-taken tracking.
- Best-practice documentation; annual **AQAR** to NAAC; SSR support.
- Rankings/ratings (NIRF/QS/THE/Impact); sustainability tracking and green audits.
- ABC integration, examination reforms, integrity and ethics sensitization.

**Frequency:** Quarterly reviews; additional meetings for accreditation cycles/compliances.

## 11.9 Students' Quality Assurance Cell (SQAC)



*Objective: To embed a culture of quality among students; enable their active role in institutional quality enhancement; and provide structured, evidence-based feedback to the IQAC, in line with NAAC's emphasis on stakeholder participation.*

### Composition:

- Dean of Student Welfare – Chairperson
- IQAC Coordinator – Ex-officio Member
- 5–7 Student Representatives (UG, PG, Research), ensuring gender and diversity inclusion
- Two Student Club/Association Leaders (e.g., Cultural, Sports, NSS/NCC)
- One Faculty Mentor nominated by IQAC – Member-Secretary

### Functions:

- Define and apply student-centric quality benchmarks for academic and administrative processes.
- Promote learner-centric pedagogy and support faculty development for participatory teaching-learning.
- Collect, analyze and report feedback from students, parents, alumni and employers on institutional quality processes.
- Disseminate information on quality parameters and best practices in higher education.
- Conduct intra-/inter-institutional workshops, seminars and awareness programs on quality.
- Maintain a digital repository/database of quality initiatives and outcomes.
- Coordinate, document and institutionalize best practices.
- Support IQAC in compiling inputs to the **AQAR** and other NAAC/UGC submissions.
- Develop and maintain an MIS dashboard for quality monitoring and early-warning signals.
- Catalyze innovation, continuous improvement and internal communication for sustained excellence.

### Governance Note:

- IQAC shall meet at least once every quarter; SQAC at least once every semester.
- Both follow Deemed to be University norms on tenure, quorum, minutes and reporting.
- IQAC reports to the Vice-Chancellor, Academic Council and Executive Council; SQAC reports to IQAC for consolidation.

### **11.10 Deemed to be University-Level Non-Statutory and Advisory Committees**

Ramachandra-DTBU shall constitute the following non-statutory/advisory committees to uphold safety, equity, transparency, academic excellence and inclusion in accordance with UGC [Institutions Deemed to be Universities] Regulations, 2023 and national legal frameworks. Each committee is constituted by the Vice-Chancellor; composition, tenure and functions are approved by the Academic Council and Executive Council.

- Anti-Ragging Cell (ARC)
- Internal Complaints Committee (ICC)
- Grievance Redressal Cell (GRC)
- Examination & Disciplinary Committee (EDC)
- SC/ST Cell
- OBC Cell
- Equal Opportunity Cell (EOC)
- Women's Empowerment Cell (WEC)
- Gender Sanitization Cell (GSC)
- Student Welfare Committee (SWC)
- Research Advisory Committee (RAC)
- Research & Development Cell (RDC)
- Curriculum Development Committee (CDC)
- Institutional Ethics Committee (IEC)
- Library Advisory Committee (LAC)
- Admission Committee (AC)
- Purchase Committee (PC)
- ICT & E-Governance Committee (ICTEC)
- Games & Sports Committee (GSC)
- Cultural Committee (CC)
- Internship, Career Counselling & Placement Cell (ICPC)
- Alumni Engagement Cell (AEC)
- Fee Fixation Committee (FFC)
- Entrepreneurship Development Cell (EDC)
- Institution Innovation Council (IIC)
- Industry Institute Partnership Cell (IIPC)
- NEP Implementation Cell (NEP-IC)
- SDG Implementation Cell (SDG-IC)
- Centre for University Publication (CUP)
- Regulatory and Compliance Cell (RCC)
- Examination Reformation Committee (ERC)
- Scholarship and Financial-Aid Committee (SFC)
- Centre for Academic Staff Development (CASD)
- Minority Cell
- Differently-Abled Students Support Cell

Additional mandatory/advisory committees shall be constituted as required by UGC/NAAC/NBA and other regulators, time to time.

### 11.10.1 Anti-Ragging Cell (ARC)



*Objective: To ensure a safe, respectful and inclusive campus free from ragging/harassment, operating through prevention, awareness and time-bound redressal in accordance with UGC Regulations, 2009 (as amended).*

#### Composition:

- Chairperson – Dean of Student Welfare / Senior Faculty Member
- 4–6 Faculty Members (multi-disciplinary)
- Registrar/Proctor/Hostel Warden – Administrative Representative
- 2–3 Student Representatives (junior/senior mix)
- One Non-teaching Staff Representative
- Psychological Counsellor
- Legal Advisor (as required)
- One External Member (NGO/civil society) – optional as per UGC norms

#### Functions:

- Prevent and prohibit ragging across academic, residential and recreational spaces.
- Conduct orientation/awareness on anti-ragging laws and policies; display notices prominently.
- Receive, investigate and resolve complaints with confidentiality and speed.
- Refer serious cases to law-enforcement as per UGC directives.
- Provide counselling and protection to affected students.
- Submit statutory compliance reports and maintain records.

### 11.10.2 Internal Complaints Committee (ICC)



*Objective: To prevent sexual harassment; ensure gender equity; and provide confidential, impartial redressal in line with UGC (Prevention, Prohibition and Redressal of Sexual Harassment of Women Employees and Students in Higher Educational Institutions) Regulations, 2015.*

#### Composition (as per Regulations):

- Presiding Officer – Senior Woman Faculty (mandatory)
- Two or more Faculty Members with social/legal awareness
- One Non-teaching Employee (preferably a woman)
- Three Student Representatives (UG/PG/Research, where applicable)
- One External Member (NGO/legal/civil society) – mandatory
- ≥50% women members

#### Functions:

- Receive and inquire into complaints confidentially; ensure due process.
- Recommend disciplinary action and remedies.
- Protect complainants from retaliation; provide requisite support.
- Conduct awareness/sensitization on gender equity and prevention.
- Submit annual reports and maintain complete documentation.

### 11.10.3 Grievance Redressal Cell (GRC)



*Objective: To establish a transparent, impartial and time-bound mechanism for grievances from students, faculty, staff and stakeholders, per UGC Grievance Redressal Regulations (as amended).*

#### Composition:

- Chairperson – Dean/Senior Professor/Registrar (nominated by VC)
- 2–3 Senior Faculty Members (different Schools)
- One Administrative Representative
- Legal Advisor (optional)
- One Student Representative (for student cases)
- Member-Secretary – Nodal Officer/GRC Coordinator

#### Functions:

- Operate secure online/offline grievance intake.
- Investigate fairly, maintain confidentiality, ensure natural justice.
- Recommend corrective/disciplinary action within defined timelines.
- Maintain records; submit periodic reports; widely publicize mechanisms.

### 11.10.4 Examination & Disciplinary Committee (EDC)



*Objective: To uphold academic integrity and institutional discipline; to investigate misconduct and recommend actions.*

#### Composition:

- Dean of Student Affairs – Chairperson
- Registrar/Proctor
- Two Senior Faculty Members
- Legal Advisor (as required)
- One Student Representative (for student-related cases)

#### Functions:

- Review cases of academic/behavioral/examination misconduct.
- Conduct fair inquiries; ensure confidentiality and due process.
- Recommend proportionate disciplinary measures to the VC.
- Submit reports to the Executive Council where required.

### 11.10.5 SC/ST Cell



*Objective: To safeguard rights of SC/ST stakeholders; prevent discrimination; implement reservation and welfare policies per UGC/GoI directives.*

**Composition:**

- Chairperson – Dean/Senior Faculty (preferably from SC/ST community)
- Coordinator/Nodal Officer – Faculty member nominated by VC
- 2–3 Faculty Representatives (at least one SC and one ST)
- One Administrative Officer (Registrar/Academics)
- One SC and one ST Student Representative (UG/PG)
- External Member (NGO/government welfare body) – optional

**Functions:**

- Monitor reservation in admissions/recruitment/promotions.
- Address discrimination/harassment complaints.
- Conduct awareness on rights, scholarships, welfare schemes.
- Provide academic/counselling support; liaise with UGC/MoE; file compliance reports.

**11.10.6 OBC Cell**

*Objective: To ensure equity and effective implementation of OBC reservation and welfare measures.*

**Composition:**

- Chairperson – Dean of Student Welfare/Senior Faculty
- Coordinator/Nodal Officer – Faculty nominated by VC
- 2–3 Faculty Members (incl. at least one OBC member)
- One Administrative Staff (Registrar/Academic Section)
- 1–2 Student Representatives (UG/PG/Research)

**Functions:**

- Monitor 27% OBC reservation implementation.
- Address grievances related to discrimination/harassment.
- Run awareness on government schemes/scholarships.
- Provide mentoring/counselling; maintain compliance records.

**11.10.7 Equal Opportunity Cell (EOC)**

*Objective: To sustain an inclusive environment ensuring equal access—especially for SC, ST, OBC, minorities, women, PwD and EWS.*

**Composition:**

- Chairperson – VC/Dean/Senior Faculty
- Coordinator/Nodal Officer – Faculty with social justice experience
- 3–4 Faculty Members (diverse representation)
- One Administrative Representative (Registrar/Student Welfare)
- 2–3 Student Representatives (diverse groups)

**Functions:**

- Promote non-discrimination and inclusiveness.
- Ensure EWS 10% reservation compliance.
- Facilitate accessibility and support for PwD.
- Conduct sensitization on diversity, human rights, constitutional values.
- Provide counselling/mentoring/career guidance; coordinate with SC/ST/OBC Cells and SWC.
- Submit annual inclusion/equity reports.

**11.10.8 Women's Empowerment Cell (WEC)**

*Objective: To promote gender equity, leadership, safety and opportunity for women students and staff.*

**Composition:**

- Chairperson – Senior Woman Faculty
- 2–3 Faculty Members (at least one woman; one from Social Sciences)
- One Administrative Officer (Student Welfare/Registrar)
- Two Student Representatives (UG/PG; at least one woman)
- External Woman Member (NGO/civil society) – optional

**Functions:**

- Conduct programs on rights, leadership, entrepreneurship and health.
- Provide counselling/mentorship; collaborate with ICC on sensitization.
- Celebrate achievements; improve participation in academics/governance.

**11.10.9 Gender Sensitization Cell (GSC)**

*Objective: To promote awareness, understanding and respectful attitudes towards gender diversity, equity and inclusion among students, faculty and staff and to foster a safe, inclusive and discrimination-free campus environment.*

**Composition:**

- Chairperson – Senior Faculty Member
- 2–3 Faculty Members (from diverse disciplines; at least one woman)
- One Administrative Officer (Student Welfare / Registrar / HR)
- Two Student Representatives (UG/PG; gender-balanced representation)
- External Expert (NGO / legal expert / psychologist / civil society representative)

**Functions:**

- Organize gender sensitization programmes, workshops and orientation sessions on gender equity, diversity and inclusive practices.

- Conduct awareness activities on prevention of sexual harassment, discrimination and gender-based violence, in coordination with the ICC and WEC.
- Promote respectful campus culture through campaigns, discussions and observance of relevant national/international days.
- Provide guidance and referral support for counselling and redressal mechanisms, without duplicating statutory grievance processes.
- Encourage inclusive participation of all genders in academic, co-curricular and leadership activities.

#### 11.10.10 Student Welfare Committee (SWC)



*Objective: Holistic student development, safety and well-being via institutional support and leadership opportunities.*

##### Composition:

- Dean of Student Welfare – Chairperson
- 2–3 Senior Faculty Members
- Two Student Representatives (gender-inclusive)
- One Medical Officer/Counsellor
- One Member nominated from SC/ST/OBC/EOC

##### Functions:

- Administer scholarships, insurance, financial-aid.
- Run leadership and life-skills programs.
- Address health, safety and inclusion; liaise with ARC/GRC.
- Provide emergency response and counselling.

#### 11.10.11 Research Advisory Committee (RAC)



*Objective: To provide strategic direction, policy guidance and academic leadership for promoting high-quality research, innovation and knowledge creation.*

##### Composition:

- Vice-Chancellor – Chairperson
- Pro-Vice-Chancellor / Dean (Research) – Member-Secretary
- Senior Professors / Heads of Research Centres
- Three External Experts (Academia / Industry / Research Funding Agencies)
- One IQAC Nominee

##### Functions:

- Frame and periodically review the University Research Policy, IPR Policy, Ethics Policy and Innovation Policy.
- Identify priority research thrust areas, interdisciplinary themes and Centres of Excellence.

- Define research KPIs, benchmarks and performance indicators aligned with national and global standards.
- Advise on strategic collaborations, national/international MoUs and research fellowships.
- Provide academic oversight for promoting high-impact publications, patents, technology transfer and start-ups.
- Offer strategic inputs to strengthen the university's research profile for rankings, accreditation and global visibility.

#### 11.10.12 Research & Development Cell (RDC)



*Objective: To operationalize research policies, facilitate funded projects, enhance research output and support faculty, scholars and students in undertaking ethical, innovative and outcome-oriented research.*

##### Composition:

- Dean (Research) / Pro-Vice-Chancellor (Research) – Coordinator
- Research Coordinators from each School / Department
- Controller of Examinations / Research Compliance Officer
- IPR / Patent / Innovation Cell Representative
- Incubation / Start-up Cell Nominee
- Administrative Officer (Research Grants & Projects)

##### Functions:

- Facilitate preparation, submission, monitoring and closure of funded research projects (Government / Industry / International).
- Vet and process proposals for research grants, consultancy, collaborations and sponsored projects.
- Support Ph.D., post-doctoral and fellowship programmes, ensuring compliance with regulations.
- Ensure adherence to research ethics, integrity, plagiarism control and publication quality standards.
- Promote patents, copyrights, technology transfer, incubation and start-up initiatives.
- Maintain research databases, dashboards and documentation for IQAC, NAAC, NIRF, QS, THE **and** other ranking/accreditation requirements.
- Organize workshops on research methodology, proposal writing, IPR, publishing ethics and innovation management.

#### 11.10.13 Curriculum Development Committee (CDC)



*Objective: To design/review curricula aligned with NEP-2020, UGC frameworks, industry needs and global standards for interdisciplinarity and employability.*

##### Composition:

- Dean (Academics) – Chairperson
- Five Senior Faculty (different Schools)

- Two External Subject Experts
- One Industry Representative (as applicable)
- One Final-Year Student Representative

**Functions:**

- Develop/revise curricula and syllabi with outcome-based design.
- Integrate industry-oriented and interdisciplinary modules.
- Embed ICT, MOOCs and blended learning.
- Align with NSQF/NCrF and SDGs where relevant.
- Route proposals to Boards of Studies and Academic Council.

**11.10.14 Institutional Ethics Committee (IEC)**



*Objective: To ensure ethical conduct across research and institutional practices per UGC and national frameworks.*

**Composition:**

- Chairperson – Senior Faculty/Dean (nominated by VC)
- One Legal Expert
- One Social Scientist/Ethicist
- Two Senior Faculty with research expertise
- One Local Community Representative
- One External Domain Expert
- Member-Secretary (appointed by VC)

**Functions:**

- Review/approve research involving human/animal subjects.
- Monitor ethical compliance in academics/administration.
- Conduct training on ethics and integrity; advise on misconduct cases.
- Maintain records and statutory reports.

**11.10.15 Library Advisory Committee (LAC)**



*Objective: To guide the development and digital transformation of Ramachandra-DTBU's library system in support of learning, research and outreach.*

**Composition:**

- Dean (Academics)/Chief Librarian – Chairperson
- One Faculty Representative from each major School
- One Student Representative (UG/PG)
- One IT Representative (e-resources/digital infra)
- Librarian – Member-Secretary

**Functions:**

- Recommend procurement/subscription/weeding policies.
- Approve annual budgets for print/digital resources.
- Drive automation, repository and remote-access services.
- Address user feedback and access grievances.
- Promote e-resources, open access, IP literacy and knowledge management.

**11.10.16 Admission Committee (AC)**

*Objective: To ensure fair, transparent and merit-based admissions aligned with UGC/GoI and institutional regulations.*

**Composition:**

- Dean (Admissions)/Senior Faculty – Chairperson
- 3–4 Faculty Members (different Schools)
- Controller of Examinations or Registrar – Member
- Admission Officer – Member-Secretary
- One Student Nominee (final year; advisory, optional)

**Functions:**

- Frame and implement admission policies; ensure SC/ST/OBC/EWS/PwD norms.
- Conduct entrance tests, counselling and selections where applicable.
- Publish accurate schedules, handbooks and notifications.
- Maintain transparent records and grievance processes.

**11.10.17 Purchase Committee (PC)**

*Objective: Transparent, need-based and cost-effective procurement in line with financial rules and institutional needs.*

**Composition:**

- Registrar/Finance Officer – Chairperson
- Dean (Academics)/Senior Faculty – Member
- Head of Requisitioning Department/Section – Member
- Two Senior Faculty (rotation) – Members
- Expert from outside University
- Purchase Officer – Member-Secretary

**Functions:**

- Scrutinize and approve departmental requisitions.
- Invite/evaluate quotations/tenders, as per financial guidelines.
- Recommend vendors and finalize procurements.
- Ensure quality control, documentation and reporting to Finance Committee.

### 11.10.18 ICT & E-Governance Committee (ICTEC)



*Objective: To develop robust ICT infrastructure, ensure cybersecurity and data protection and mainstream digital governance and pedagogy.*

#### Composition:

- Director (IT/Digital Learning) – Chairperson
- One Faculty Representative from each School
- MIS/ERP Coordinator – Member
- Network/System Administrator – Member
- External ICT Expert – optional

#### Functions:

- Frame ICT/e-governance policies; oversee ERP, LMS, MOOCs, blended tools.
- Ensure cybersecurity, privacy and digital literacy.
- Develop smart classrooms; run regular ICT training for faculty/staff/students.
- Monitor ICT-enabled governance for transparency and efficiency.

### 11.10.19 Games & Sports Committee (GSC)



*Objective: To promote fitness, wellness and competitive sports; to enable participation in intra- and inter-university events.*

#### Composition:

- Director of Physical Education – Chairperson
- 2–3 Faculty Members interested in sports
- NCC/NSS Coordinator – Member
- 2–3 Student Representatives (including women; different Schools)
- External Sports Expert – optional

#### Functions:

- Conduct inter-departmental/collegiate/university sports events.
- Facilitate participation at state/national/international levels.
- Maintain and upgrade sports infrastructure and scheduling.
- Introduce wellness programs; build teamwork, discipline, leadership through sport.

### 11.10.20 Cultural Committee (CC)



*Objective: To encourage artistic expression, cultural literacy and national integration through diverse cultural/literary activities.*

**Composition:**

- Director, Centre for Outreach Programs / Faculty Coordinator (Cultural) – Chair/Coordinator
- 2–3 Faculty Members (arts/languages/social sciences)
- NCC/NSS/Cultural Club Coordinators – Members
- 3–4 Student Representatives (inclusive, multi-School)
- External Cultural Expert/Artist – optional

**Functions:**

- Organize festivals, competitions, exhibitions; facilitate youth festival participation.
- Promote folk, classical and contemporary forms; collaborate with clubs/societies.
- Encourage inclusivity and cross-cultural engagement.

**11.10.21 Internship, Career Counselling & Placement Cell (ICPC)**

*Objective: To build strong industry linkages for internships, career guidance and placements; to enhance employability in line with UGC/NAAC expectations.*

**Composition:**

- Dean (Training & Placement)/Placement Officer – Chairperson
- Two Faculty Members (different streams) – Members
- Alumni Representative from industry – Member
- Three Final-Year Student Representatives – Members
- External HR/Industry Expert – optional

**Functions:**

- Establish/expand industry, R&D and public-sector partnerships.
- Conduct campus drives, job fairs and structured internship programs.
- Deliver training on aptitude, communication, GDs, interviews and career readiness.
- Analyze placement data for accreditation/regulatory submissions; publish annual reports.
- Capture alumni/employer feedback for continuous improvement.

**11.10.22 Alumni Engagement Committee (AEC)**

*Objective: To strengthen alumni relations, mobilize alumni contributions and integrate alumni expertise into academic and institutional development.*

**Composition:**

- Dean (Alumni Affairs) – Chairperson
- Two Faculty Members (nominated by VC) – Members
- One Administrative Officer – Member
- Four Alumni Representatives (diverse batches/industries/geographies) – Members

- One Final-Year Student Representative – Member

#### Functions:

- Maintain an up-to-date alumni database and online portal/community.
- Organize reunions, meets, webinars and mentoring initiatives.
- Leverage alumni for mentoring, internships, placements, guest talks.
- Mobilize support for scholarships, research, infrastructure and endowments.
- Celebrate alumni achievements; encourage governance/quality contributions.

#### 11.10.23 Fee Fixation Committee (FFC)



*Objective: To ensure transparent, reasonable and equitable fee structures for all programmes offered by Ramachandra-DTBU, in alignment with regulatory norms, institutional sustainability and student affordability.*

#### Composition:

- Vice-Chancellor – Chairperson
- Registrar – Member
- Finance Officer – Member
- Deans of Schools – Members
- External Finance Expert / Auditor – Member
- Controller of Examinations – Member
- Director (Admissions & Student Affairs) – Member
- Deputy Registrar (Finance) – Convenor

#### Functions:

- Review program-wise cost structure, operational expenditure and financial projections.
- Recommend annual and multi-year fee structures for approval by the Board of Management.
- Ensure compliance with UGC/AICTE/ICAR/NMC/Nursing Council guidelines on fee transparency.
- Periodic review of fees based on inflation, infrastructural investments and academic enhancements.
- Publish approved fee structures in a transparent and student-friendly manner.
- Address grievances related to fee components and recommend corrective measures.

#### 11.10.24 Entrepreneurship Development Cell (EDC)



*Objective: To foster an entrepreneurial mindset among students and faculty, encourage innovation-driven enterprises and support start-up creation through training, mentoring and incubation.*

#### Composition:

- Dean (Innovation & Research) – Chairperson
- Director, Ramachandra Innovation & Incubation Centre (Ramachandra-IIC) – Co-Chair
- Faculty Startup Coordinator from each School – Members

- Industry/Alumni Entrepreneur – Member
- Student Entrepreneurship Lead (one UG + one PG) – Members
- Coordinator, Entrepreneurship Development Cell – Convenor

#### **Functions:**

- Conduct entrepreneurship development programmes, bootcamps, hackathons and ideation workshops.
- Coordinate closely with HRIIC for pre-incubation, incubation and seed funding support.
- Facilitate mentorship through alumni entrepreneurs, industry experts and venture partners.
- Provide training on business planning, financial literacy, market analysis and regulatory compliance.
- Organize annual Ramachandra Innovators Challenge in collaboration with HRIIC and IIC.
- Promote entrepreneurship as a career through campaigns, success stories and competitions.
- Liaise with MSME-DI, Startup India, EDII and State Innovation Missions for grants and schemes.

#### **11.10.25 Institution Innovation Council (IIC)**



*Objective: To systematically promote innovation, start-up culture and research-based entrepreneurship among students and faculty as mandated by the Ministry of Education's Innovation Cell (MIC), Government of India.*

#### **Composition:**

- Vice-Chancellor – President
- Dean (Research & Innovation) – Vice President
- Director, HRIIC – Convenor
- Faculty Innovation Coordinators – Members
- Industry Innovator / Start-up Founder – Member
- Alumni Entrepreneur – Member
- Student Representatives (UG, PG, Ph.D.) – Members

#### **Functions:**

- Conduct innovation, IPR, start-up awareness programs as per MIC-IIC calendar.
- Register Ramachandra-DTBU's activities on the Innovation Cell portal and ensure score/rank improvement.
- Facilitate idea competitions, prototype development and innovation challenges.
- Organize sessions with experts in IPR, product design, venture funding and technology transfer.
- Mentor student teams for Smart India Hackathon, Toycathon and national innovation contests.
- Strengthen linkages between academic research and market applications through IIC events.
- Monitor innovation indicators for NIRF, ARIIA and national rankings.

### 11.10.26 Industry Institute Partnership Cell (IIPC)



*Objective: To strengthen collaborations between industry and the University for curriculum enhancement, internships, research, placements, consultancy and joint skill-development initiatives.*

#### Composition:

- Pro Vice-Chancellor / Dean (Industry Relations) – Chairperson
- Dean(s) of Schools – Members
- Industry Relationship Manager – Member
- Training & Placement Officer – Member
- Faculty Industry Coordinators from each Department – Members
- HR/Technical Heads from Key Industry Partners – Industry Members
- IIPC Coordinator – Convenor

#### Functions:

- Build MoUs and strategic partnerships with industries for training, internships and research.
- Facilitate guest lectures, workshops, industrial visits and hands-on training programmes.
- Establish Industry Advisory Boards for curriculum review and skill mapping.
- Promote joint research, consultancy projects and collaborative product development.
- Support student internships, apprenticeships, live projects and placement drives.
- Coordinate faculty immersion programs, industrial fellowships and sabbaticals.
- Help set up Industry-Sponsored Labs, Centres of Excellence and skill programs under NSDC/Skill India.

### 11.10.27 NEP Implementation Cell



*Objective: To ensure systematic, phased and compliant implementation of the National Education Policy (NEP) 2020 across all academic, administrative and governance functions of Ramachandra-DTBU, promoting multidisciplinary education, flexible curricula, research integration and learner-centric reforms.*

#### Composition:

- Vice-Chancellor – Chairperson
- Pro Vice-Chancellor (Academic) – Co-Chair
- Registrar – Member
- Deans of all Schools – Members
- Controller of Examinations – Member
- Director (IQAC) – Member
- Director (Research & Innovation) – Member
- Director (Skill Development & Apprenticeship) – Member
- NEP Nodal Officer – Convenor

**Functions:**

- Develop a University-wide NEP 2020 Implementation Roadmap with timelines and milestones.
- Operationalize Academic Bank of Credits (ABC), Choice-Based Credit System (CBCS), multidisciplinary electives and flexible entry–exit options.
- Facilitate curriculum revision in alignment with NEP 2020, UGC Curriculum Framework and industry relevance.
- Integrate skill-based, vocational and apprenticeship-based credits through NSDC/Skill India schemes.
- Oversee implementation of holistic education, research–teaching integration and Indian Knowledge Systems (IKS).
- Conduct NEP awareness workshops for faculty, students and administrative staff.
- Monitor compliance with NEP-aligned reforms for NIRF, NAAC, NBA and regulatory bodies.
- Submit annual NEP implementation reports to Academic Council and Board of Management.

**11.10.28 SDG Implementation Cell**

*Objective: To embed the United Nations Sustainable Development Goals (SDGs) into the University's academic programmes, research agenda, campus operations and community engagement, positioning Ramachandra-DTBU as a model for sustainability and rural transformation.*

**Composition:**

- Vice-Chancellor – Patron
- Dean (Sustainability & Environment) – Chairperson
- Director (Research & Innovation) – Member
- Director, HRRIP – Member
- NSS/NCC Coordinator – Member
- Faculty Representatives from Science, Engineering, Agriculture, Social Sciences – Members
- Student SDG Ambassadors (UG & PG) – Members
- SDG Coordinator – Convenor

**Functions:**

- Develop an Institutional SDG Framework covering academics, research, outreach, environment and governance.
- Align University activities and research thrust areas with SDG indicators.
- Promote campus sustainability initiatives such as waste reduction, renewable energy, water conservation and green audits.
- Facilitate SDG-related research projects, conferences, hackathons and rural development programmes.
- Publish an annual **Ramachandra-DTBU SDG Progress Report** with measurable indicators.
- Collaborate with UNDP, Ministry of Rural Development and local bodies on SDG-aligned community projects.

- Involve students through SDG Clubs, field work, internships and social innovation projects.
- Integrate SDG competencies into teaching, learning, assessment and campus culture.

#### 11.10.29 Centre for University Publication



*Objective: To promote high-quality academic publishing, support faculty and student scholarly outputs and position Ramachandra-DTBU as a reputable centre for books, journals, monographs, policy briefs and institutional publications.*

#### Composition:

- Vice-Chancellor – Chief Patron
- Dean (Research & Innovation) – Chairperson
- Director (Centre for Publications) – Convenor
- Editor(s)-in-Chief of University Journals – Members
- Faculty Representatives from each School – Members
- External Publishing Expert/Reviewer – Member
- Librarian – Member

#### Functions:

- Manage the publication of University journals, conference proceedings, working papers and policy briefs.
- Support faculty and students in writing, editing and publishing research articles, books and monographs.
- Establish a peer-reviewed **Ramachandra Journal Series** in key academic areas.
- Maintain publication ethics, plagiarism norms and open-access standards.
- Develop an institutional repository for digital archiving of theses, dissertations and publications.
- Facilitate ISBN/ISSN registration for University publishing outputs.
- Organize workshops on academic writing, research communication and scientific publishing.
- Collaborate with national and international publishers for co-publications and book series.
- Publish the University Newsletter, Annual Research Report, Research Highlights and institutional magazines.

#### 11.10.30 Regulatory and Compliance Cell (RCC)



*Objective: To ensure continuous compliance with statutory, regulatory, accreditation and governance requirements prescribed by national and state regulatory bodies and to institutionalize a culture of transparency, accountability and regulatory preparedness.*

#### Composition:

- Vice-Chancellor – Chairperson
- Registrar – Convener

- Controller of Examinations – Member
- Finance Officer – Member
- Dean (Academic Affairs) / Dean (Research) – Member
- IQAC Coordinator – Member
- Legal Officer / External Legal Expert – Member (as required)
- Senior Administrative Officer – Member-Secretary

#### Functions:

- Monitor and ensure compliance with regulations, guidelines and notifications issued by statutory and regulatory authorities.
- Coordinate submission of applications, approvals, renewals, statutory returns and mandatory disclosures within stipulated timelines.
- Maintain a central compliance repository covering academic, administrative, financial and research regulations.
- Ensure adherence to norms related to admissions, examinations, faculty qualifications, service rules, financial management and research governance.
- Facilitate compliance for accreditation and ranking frameworks (NAAC, NIRF, NBA, QS, THE, etc.) in coordination with IQAC and concerned cells.
- Conduct periodic internal compliance audits, risk assessments and corrective action reviews.
- Sensitize faculty and staff on regulatory changes through circulars, workshops and compliance advisories.
- Act as the nodal cell for coordination with regulatory bodies during inspections, audits and peer team visits.

#### 11.10.31 Examination Reformation Committee (ERC)



*Objective: To reform, modernize and continuously improve the examination and evaluation system, ensuring fairness, transparency, academic integrity, flexibility and outcome-based assessment of student learning.*

#### Composition:

- Vice-Chancellor – Chairperson
- Controller of Examinations – Convener
- Dean (Academic Affairs) – Member
- Two Senior Faculty Members (with assessment and curriculum expertise)
- IQAC Nominee – Member
- IT / ERP Systems Expert – Member
- External Academic Expert (Assessment & Evaluation) – Member (optional)
- Deputy Controller of Examinations – Member-Secretary

#### Functions:

- Design and recommend reforms in assessment, evaluation, grading and credit systems in alignment with NEP-2020 and outcome-based education (OBE).
- Introduce continuous and comprehensive evaluation (CCE), formative and summative assessments, project-based and experiential evaluation methods.

- Promote flexible examination models, including modular exams, open-book exams, online / hybrid assessments and multiple-entry-exit compatible evaluation.
- Ensure robustness, confidentiality and transparency in question paper setting, moderation, valuation, result processing and grievance redressal.
- Integrate digital examination systems, ERP-based workflows and secure technology-enabled evaluation practices.
- Recommend policies for revaluation, supplementary examinations, academic audits and malpractice prevention.
- Review examination data, learner performance analytics and feedback to improve assessment quality and learning outcomes.
- Coordinate with IQAC and academic bodies for periodic review and continuous improvement of the examination system.

### 11.10.32 Scholarship and Financial-Aid Committee (SFC)



*Objective: To ensure equitable access to higher education by designing, administering and monitoring scholarships and financial-aid mechanisms for deserving students, with a focus on merit, inclusivity, socio-economic equity and student retention.*

#### Composition:

- Vice-Chancellor – Chairperson
- Dean (Student Affairs) / Dean (Academic Affairs) – Convener
- Finance Officer – Member
- Registrar / Student Welfare Officer – Member
- Two Senior Faculty Members – Members
- SC/ST / Minority / Differently-Abled Cell Nominee – Member
- IQAC Nominee – Member
- Scholarship Section Officer – Member-Secretary

#### Functions:

- Frame and periodically review the University Scholarship and Financial-Aid Policy.
- Identify, publicize and administer merit-based, need-based, government, institutional and industry-supported scholarships.
- Ensure transparent processes for application, eligibility verification, selection, disbursement and grievance redressal.
- Coordinate with government portals, funding agencies, trusts, alumni, CSR partners and industry sponsors.
- Monitor utilization, compliance and timely disbursement of scholarship and financial-aid funds.
- Promote inclusive education by supporting students from economically weaker sections, first-generation learners, rural backgrounds, minorities and differently-abled categories.
- Analyze impact of financial-aid schemes on enrolment, retention, progression and student success and report outcomes to IQAC and statutory bodies.
- Recommend fee concessions, installment facilities, emergency assistance and special support schemes as required.

### 11.10.33 Centre for Academic Staff Development (CASD)



*Objective: To enhance the academic, pedagogical, research, leadership and professional competencies of faculty members and academic administrators through continuous capacity-building initiatives, outcome-based education and quality assurance frameworks.*

#### Composition:

- Vice-Chancellor – Patron
- Dean (Academic Affairs) / Dean (Faculty Development) – Director
- IQAC Coordinator – Member
- Senior Professors / Master Trainers – Members
- External Experts (Teaching-Learning, Pedagogy, Research, Leadership) – Members (as required)
- HR / Academic Administration Representative – Member
- CASD Coordinator – Member-Secretary

#### Functions:

- Design and implement Faculty Induction Programmes (FIP) for newly appointed faculty.
- Organize Faculty Development Programmes (FDPs), refresher courses, workshops and MOOCs on pedagogy, curriculum design, assessment reforms and learner-centric teaching.
- Promote training in NEP-2020 implementation, outcome-based education (OBE), CBCS, ABC, blended learning and digital pedagogy.
- Facilitate research capacity building through programs on research methodology, proposal writing, IPR, patents, publishing ethics and funded research.
- Support leadership and academic administration development for Deans, Heads, Coordinators and aspiring academic leaders.
- Encourage innovation in teaching through experiential learning, project-based learning, flipped classrooms and technology-enabled education.
- Maintain faculty training records, impact assessments and reports for IQAC, NAAC, NIRF, NBA and other accreditation requirements.
- Collaborate with national and international agencies, academic networks and professional bodies for advanced training programmes.

### 11.10.34 Minority Cell



*Objective: To ensure equity, inclusion and academic support for students belonging to minority communities and to safeguard their rights while promoting access, retention, progression and holistic development in higher education.*

#### Composition:

- Vice-Chancellor – Patron
- Dean (Student Affairs) / Senior Faculty Member – Chairperson
- Two Faculty Members (with experience in student mentoring / social inclusion)
- Student Welfare Officer – Member
- Two Student Representatives (from minority communities; UG/PG)

- IQAC Nominee – Member
- Minority Cell Coordinator – Member-Secretary

#### **Functions:**

- Implement minority-related policies and welfare schemes, including academic mentoring, counselling, remedial support and facilitation of scholarships and financial aid.
- Promote awareness, inclusion and holistic development of minority students through career guidance, skill development, entrepreneurship programmes and participation in academic and leadership activities.
- Address grievances and ensure documentation, monitoring and reporting for IQAC, UGC and other statutory and quality assurance requirements.

#### **11.10.35 Differently-Abled Students Support Cell**



*Objective: To ensure equal access, inclusion and holistic development of Differently-Abled (Divyangjan) students and staff by providing academic, physical, technological and psychosocial support in alignment with the inclusive education principles of the University Grants Commission.*

#### **Composition:**

- Vice-Chancellor – Patron
- Dean (Student Affairs) / Senior Faculty Member – Chairperson
- Two Faculty Members (inclusive education / student mentoring)
- Student Welfare Officer – Member
- Differently-Abled Student Representatives – Members (where available)
- IQAC Nominee – Member
- Differently-Abled Cell Coordinator – Member-Secretary

#### **Functions:**

- Facilitate inclusive academic support, assistive technologies, barrier-free infrastructure and reasonable accommodations in teaching, learning and examinations.
- Coordinate access to government and institutional scholarships, concessions, counselling and support services for differently-abled students.
- Promote awareness, sensitization and participation of differently-abled students in academic, co-curricular and leadership activities, while ensuring grievance redressal and compliance reporting to IQAC and statutory bodies.

#### **11.11 Special Committees for Sustainability and Outreach**

To advance SDGs, environmental stewardship and social impact, Ramachandra-DTBU shall constitute the following special committees under the Centre for Outreach Programs. Annual reports shall be placed before the Academic Council, Executive Council and relevant accreditation bodies.

### 11.11.1 Environment & Sustainability Committee (ESC)



*Objective: To drive ecological responsibility, green campus practices and climate action aligned to Deemed to be University Green Policy, UGC guidelines and NAAC green metrics.*

#### Composition:

- Chairperson – Dean (Academics/Planning) or Senior Faculty with sustainability expertise
- Director, Centre for Outreach Programs – Ex-officio Member
- Two Faculty Members (Environmental Sciences/Engineering/Natural Sciences)
- One Administrative Officer (Campus Development/Maintenance)
- Two Student Representatives (incl. Eco-Club/NSS)
- One External Expert (NGO/Government/Industry CSR)

#### Functions:

- Formulate/update the Green Policy.
- Implement energy conservation, water harvesting, solid-waste management, biodiversity measures.
- Conduct periodic green audits ensure statutory compliance.
- Promote sustainability in curriculum, research and outreach.
- Run workshops and student-led eco-initiatives; collaborate with external agencies.
- Prepare and publish the **Annual Sustainability Report**.

### 11.11.2 Community Engagement & Outreach Committee (CEOC)



*Objective: To integrate service-learning and outreach with academics for measurable societal impact, aligned with NEP-2020.*

#### Composition:

- Chairperson – Director, Centre for Outreach Programs
- Two Faculty Members (Social Sciences/Humanities/Applied Sciences)
- NSS or NCC Coordinator – Member
- Two Student Representatives (UG/PG; gender-inclusive)
- One Administrative Officer – Member
- One External Community Representative (local NGO/Gram Panchayat/Industry CSR)

#### Functions:

- Design projects in education, health, digital literacy, women's empowerment, skilling.
- Align with national missions (e.g., Swachh Bharat, Jal Jeevan, Digital India).
- Offer credit-linked service-learning per NEP-2020.
- Build partnerships with NGOs/CSR/government; mentor civic engagement.
- Document outcomes for NAAC/UGC; publish an **Annual Outreach Report**.

**Governance Note (ESC & CEOC):**

Operate with the same tenure, quorum, reporting and diversity norms as other committees. Recommendations are submitted to the Vice-Chancellor for placement before the Academic Council and Executive Council.

**11.12 General Norms Applicable to All Committees**

- **Tenure:** Members – three years; student representatives – one year.
- **Meetings:** Minimum two per semester (or more as required).
- **Quorum:** One-third of total members; decisions by simple majority.
- **Reporting:** Minutes and recommendations submitted to the Vice-Chancellor and, where required, to the Academic Council/Executive Council.
- **Gender & Diversity:** Committees strive for gender balance and inclusive representation; comply with Deemed to be University equity policies.
- **External Participation:** Experts from academia, industry, civil society, or regulatory bodies may be co-opted for impartiality and domain expertise.
- **Transparency & Compliance:** Maintain proper records; file periodic reports per UGC regulations and other applicable norms.

**11.13 Administrative Hierarchy**

The following Table explains the administrative hierarchy followed in the proposed Ramachandra Deemed to be University, as per the UGC guidelines.

**Table 11.1: Administrative Hierarchy**

<b>Position</b>	<b>Role</b>
<b>Chancellor</b>	Ceremonial Head; appoints VC; receives annual reports and major decisions.
<b>Vice-Chancellor</b>	Chief Executive and Academic Officer; chairs all statutory bodies; leads strategy, compliance, partnerships, resource mobilization and discipline; ensures mission alignment with NEP 2020 and rural innovation.
<b>Pro Vice-Chancellor</b>	Assists VC in Research, Innovation and International Relations; acts in VC's absence.
<b>Registrar</b>	Custodian of records and statutes; oversees administration and E-governance.
<b>Finance Officer</b>	Manages budgets, accounts and audits; secretary to Finance Committee.
<b>Controller of Examinations</b>	Ensures examination integrity and timely results.
<b>Deans of Schools</b>	Academic leadership for their domains (Engineering and Technology, Computing, Sciences, Liberal Arts, Management, Health Sciences, Agriculture).
<b>Directors of Centres / Cells</b>	Lead Research & Innovation, IQAC, Outreach, Incubation, ICT, Alumni and Student Affairs.

<b>Heads of Departments</b>	Academic administration, mentoring and curriculum delivery.
<b>Administrative / Technical Staff</b>	Support academic, research and student services under approved service rules and SOPs.

### Lines of reporting

- HoDs → Deans → Pro-VC → VC
- Directors (functional) → VC
- Registrar/FO/CoE → VC
- All statutory bodies report through their Secretaries to VC/EC as mandated.

### Meetings, quorum, records

- Bodies meet at the prescribed frequency; quorum as notified (generally one-third); minutes recorded, confirmed, actioned and archived (digital + physical) as per records retention policy; secure MIS access for authorized officials and regulators.

## 11.14 Governance Ethos

Ramachandra-DTBU embodies the rich legacy of the Ramachandra College of Engineering, upholding a culture of excellence, ethics and service. Its governance framework is designed to be transparent, participatory, digitally enabled and impact-oriented, seamlessly connecting academic achievement with rural empowerment and sustainable development.



*“Ramachandra Deemed to be University commits to a transparent, participatory and accountable governance and administrative framework that upholds academic integrity, regulatory compliance and institutional autonomy.”*

## Chapter-12

# FINANCIAL PLAN



*“Sound financial planning ensures transparency, accountability and resilience in higher education institutions.”*

The Finance Plan of the proposed Ramachandra Deemed to be University (R-DTBU) outlines the **financial architecture required to establish, operate and sustain the institution as a Distinct Category Deemed to be University**. It presents a structured framework for mobilising resources, meeting capital and operational expenditures and ensuring long-term financial stability in alignment with UGC (Institutions Deemed to be Universities) Regulations, 2023.

Finance plan provides a comprehensive financial roadmap that enables R-DTBU to develop into a robust, future-ready institution capable of sustaining academic excellence, expanding research capacity and contributing meaningfully to regional and national development.

### 12.1 Resource Mobilization

The Ramachandra Educational Foundation will be supported initially for its establishments and growth in terms of providing funding support and corpus fund of ₹25 Cr from its parent trust, Ganta Sriram Educational Society. The relevant resolutions are provided in **Annexure 21.13**. The PAN and financial statements of Ramachandra Educational Foundation and Ganta Sriram Educational Society are provided in **Annexure 21.9**.

The Deemed to be University’s financial sustainability shall rest on diversified and ethically managed revenue streams:

1. **Student Fee Income:** Core revenue from tuition, hostel and examination fees.
2. **Research Grants:** Funding from DST, DBT, ICSSR, DRDO, AICTE and international agencies.
3. **Industry Collaboration:** Sponsored chairs, CSR funding, contract research and training programs.
4. **Consultancy & Extension:** Faculty-led consultancy, continuing education and executive development programs.
5. **Philanthropy & Donations:** Alumni contributions and endowment drives.
6. **Auxiliary Enterprises:** Innovation hubs, incubation centers and campus-based skill academies.
7. **International Programs:** Fee income from foreign and NRI students under supernumerary quota.

All mobilization efforts will operate through the **Office of Finance and Planning** with transparent accounting, internal audits and adherence to UGC & CAG norms.

## 12.2 Fund Flow Statements

The annual fund flow reflects a healthy and self-sustaining financial position.

For the current year of 2024–2025,

- **Inflows:** ₹32 Cr.
- **Outflows:** ₹25 Cr.
- **Surplus:** ₹7 Cr.

The projected fund flow continues to demonstrate a positive and sustainable financial outlook. Initial capital development and corpus fund will be supported through seed funding from Ganta Sriram Educational Society, while recurring operational expenditures will be adequately met through internally generated revenues.

### Year 1 (2027–28):

- **Inflows:** ₹37 Cr. (Expected)
- **Outflows:** ₹32 Cr. (Expected)
  - Salaries & Benefits: ₹20 Cr.
  - Additional Infrastructure & Labs: ₹5 Cr.
  - Additional ICT, Library, Digital Resources: ₹1 Cr.
  - Scholarships & Aid: ₹1 Cr.
  - Operating Expenses: ₹3 Cr.
  - Innovation, Research & Development: ₹2 Cr.
- **Surplus:** ₹5 Cr. (It will be used for further Infrastructure Development)

### Year 5 (2032–33):

- **Inflows:** ₹48 Cr. (Expected)
- **Outflows:** ₹40 Cr. (Expected)
  - Salaries & Benefits: ₹24 Cr.
  - Additional Infrastructure Expansion: ₹5 Cr.
  - Additional ICT, Library & Digital Resources: ₹1 Cr.
  - Scholarships & Aid: ₹2 Cr.
  - Operating Expenses: ₹4 Cr.
  - Innovation, Research & Development: ₹4 Cr.
- **Surplus:** ₹8 Cr. (It will be used for further Infrastructure Development)

**Table 12.1: Revenue Projections and Financial Stability**

<b>Year</b>	<b>Expected Students Strength (as per Intake)</b>	<b>Revenue (₹ Crore)</b>	<b>Expenditure (₹ Crore)</b>	<b>Surplus (₹ Crore)</b>
2024-25	3936	32	25	7
2027-28	4116	37	32	5
2028-29	4536	39	33	6
2029-30	5410	41	34	7
2030-31	6544	44	37	7
2031-32	7538	48	40	8

The surplus in the initial years will be used for further infrastructure, academic and research and development. Further surplus will be transferred to the Ganta Sriram Educational Society to meet out the initial corpus fund support.

### 12.3 Fee Structures

The University will follow a transparent, rational and competitive fee structure aligned with quality of education and regional affordability.

#### Fee Structure Components

1. **Tuition Fee** – based on programme type
2. **Development Fee** – infrastructure and lab usage
3. **Examination Fee**
4. **Hostel & Mess Fee**
5. **Library and e-Resource Fee**
6. **Student Welfare & Insurance Fee**

#### Guiding Principles

- Comparable to similar institutions in Andhra Pradesh
- Inclusivity ensured through **scholarships, concessions and financial aid**
- Periodic review by the **Fee Fixation Committee**

**Table 12.2: Indicative Fee Ranges (Annual)**

<b>Programme</b>	<b>Proposed Annual Fee (₹)</b>
B.Tech.	1,50,000 – 2,00,000
B.Sc	80,000 – 1,40,000

BBA	80,000 – 1,40,000
BA	60,000 – 1,00,000
PG Programmes	1,00,000 – 1,50,000
Integrated Programmes	1,20,000 – 1,50,000
Ph.D	50,000 – 80,000

These fees maintain affordability while ensuring quality.

## 12.4 Fee Fixation Committee

A **Fee Fixation Committee** will be constituted as per UGC regulations to ensure fairness and transparency in determining fees.

### Composition

- Vice-Chancellor (Chairperson)
- Registrar
- Chief Finance Officer
- Two senior faculty members
- External expert (Finance/Legal)
- Nominee of Sponsoring Body

### Functions

- Propose and approve fee structure for all programmes
- Review fee structure annually
- Consider operational costs, inflation, quality commitments
- Ensure compliance with State and UGC guidelines
- Recommend concessions, scholarships and fee waivers
- Submit reports to Executive Council for approval

### Principles Followed

- Transparency
- Accountability
- Benchmarking
- Students' interest and affordability
- Financial sustainability



*“Ramachandra Deemed to be University commits to prudent, transparent and accountable financial management to ensure sustainability, regulatory compliance and academic excellence.”*

## Chapter-13

**QUALITY ASSURANCE AND ACCREDITATION PLAN**

*“Quality assurance ensures that University practices consistently meet stakeholder expectations and societal needs.”*

### 13.1 Background and Present Quality Status of Ramachandra College of Engineering (Autonomous)

Ramachandra College of Engineering (RCE), the existing institution proposed for upgradation into Ramachandra Deemed to be University, has established **basic and functional quality assurance mechanisms** appropriate to an engineering college under affiliating and regulatory frameworks.

At present, RCE demonstrates the following quality-related practices:

- Structured academic planning and calendar implementation
- Faculty recruitment as per AICTE/UGC norms
- Internal assessment systems and examination processes
- Student feedback mechanisms on teaching–learning
- Faculty appraisal and performance monitoring
- Industry interaction through guest lectures, internships and training programmes
- Library, laboratory and ICT facilities supporting academic delivery
- Extension and outreach activities involving students and faculty

These practices fetched the following results which are compiled in the following table.

**Table 13.1: Present Status of Ramachandra College of Engineering**

Component	Present Status	Remarks
NAAC	Accredited with A+ Status and score of 3.33/4 in the Cycle-2.  Valid up to Sept 20, 2027	Cycle-1 score was 2.80/4 with B++ status.  Period: Nov 2016-Nov2021
NBA	FIVE programmes (Civil, EEE, ECE, CSE & MECH) are accredited for 3 years.  Validity for ECE, CSE & MECH : Dec 31, 2028  Validity for CIVIL & EEE : June 30, 2028	ECE, CSE & MECH are accredited from 2018  CIVIL & EEE are accredited from 2022

MoE's IIC	FOUR Star Status (Highest among Colleges in India)	Rated since 2021
AICTE IDEA Lab	Function from 2023	Supports Innovation Culture
Autonomous Status	Autonomy from 2023	Conferred both by UGC and JNTU-K
NEP 2020 Implementation	Implemented	Effective since 2023
SDG 2030 Incorporation	Incorporated	In academics and outreach activities
Academic Bank of Credits (ABC)	NAD-ID – NAD063816	8113 Marksheets uploaded
Grants	355.5 Lakhs	Received from AICTE, DST, MSME, DSIR, etc
Student Faculty Ratio (SFR)	1 : 16.7	As per the guidelines
MoUs	69	Academic Institutions, Industries and R&D labs
Publications	978	SCI / WoS / Scopus / IEEE
Patents Published / Granted	211	Published - 174 Granted - 37
NIRF Participation	Participated in Engineering, Management, Innovation and Overall category	Participation from 2019
ISO	ISO 9001:2015 By GMCSP Valid till 25.09.2026	Quality Management System with updated ISO 21001:2025

These practices provide a **sound institutional baseline**, upon which a **more comprehensive and university-level quality framework** will be built under the proposed Deemed to be University.

### 13.2 Need for Transition to a University-Level Quality Framework

While the present quality systems at RCE are adequate for an **affiliated autonomous engineering college**, the transition to a Deemed to be University necessitates:

- University-wide **academic autonomy and accountability**
- Formalized and documented **continuous quality improvement (CQI) cycles**
- Outcome-Based Education (OBE) implementation across **multidisciplinary programmes**
- Outcome-based Research-driven quality benchmarks
- Full-scale **e-governance and data-driven quality monitoring**
- Strategic participation in global ranking and accreditation frameworks

Accordingly, Ramachandra Deemed to be University will establish a **robust, integrated and future-oriented quality assurance system**, building upon the existing strengths of RCE.

### 13.3 Proposed Quality Assurance Framework for Ramachandra Deemed to be University

The Quality Assurance and Accreditation Plan of Ramachandra Deemed to be University is designed to ensure:

- Academic excellence
- Regulatory compliance
- Research productivity
- Industry relevance
- Global competitiveness
- Stakeholder satisfaction

The framework is aligned with:

- **NAAC Binary & Maturity-Based Accreditation Framework**
- **NIRF**
- **NBA**
- **QS I-GAUGE / Global Benchmarking Systems**
- **NEP-2020 and SDG-2030 goals**

### 13.4 Comparative Analysis: Present Status vs Proposed DTBU Framework

Present status of Ramachandra College of Engineering is expected to be enhanced in all its functional and outcome-oriented parameters under the proposed Ramachandra Deemed to be University.

**Table 13.2: Comparative Analysis: Present Status vs Proposed DTBU Framework**

<b>Quality Dimension</b>	<b>Present Status at RCE</b>	<b>Proposed DTBU-Level Enhancement</b>
Quality Cell	Informal / institution-level monitoring	Fully constituted University IQAC with statutory powers
Academic Autonomy	Limited (affiliated structure)	Full academic autonomy with School-based governance
OBE Implementation	Partial	University-wide OBE with PEO–PO–CO mapping
Academic Audit	Internal reviews	Annual Academic & Administrative Audit (AAA) – internal & external
Research Quality	Individual faculty initiatives	Structured research policy, CoEs, funded projects, patents
Student Feedback	Periodic	Continuous, LMS-based feedback and analytics
Governance	Manual / semi-digital	Fully e-governed, ERP-driven quality monitoring

ISO	ISO 9001:2015 By GMCSPL Valid till 25.09.2026	To continue the Quality Management System with updated ISO 21001:2025
NAAC	2 <sup>nd</sup> Cycle: A+ Grade, 3.33/4 Valid till Sept 20, 2027 1 <sup>st</sup> Cycle: B++ Grade, 2.80/4	Improve to A++ or equivalent in Maturity-Based Graded Level of the NAAC New Framework
NBA	Total no. of Programmes: 15 <b>NBA Accredited: 5</b> CSE, ECE, MECH valid till 31.12.2028 in Tier-II CIVIL, EEE valid till 31.06.2028 in Tier-II	NBA Accreditation for all the eligible Programmes
ABET	Not initiated	Going for the existing NBA accredited Programmes
NIRF-Engineering	Data filed for the past 5 years – Not Ranked	To place in Ranking
NIRF-Innovation	Data filed for the past 2 years – Not Ranked	To place in Ranking
NIRF-Management	Data filed for the past 2 years – Not Ranked	To place in Ranking
NIRF-Overall	Data filed for the past 5 years – Not Ranked	To place in Ranking
QS I-GAUGE	Not initiated	To place in Rating
QS World / THE World	Not initiated	To place in Ranking
Benchmarking	Limited	NAAC, NIRF, NBA, QS I-GAUGE benchmarking

### 13.5 NAAC Accreditation Roadmap

Ramachandra Deemed to be University will adopt a **phase-wise NAAC roadmap**, building on the quality culture already initiated at RCE.

#### Phase I: Foundational Readiness (Years 1–2)

- Establishment of a University-Level statutory **Internal Quality Assurance Cell (IQAC)** by strengthening the existing College-Level IQAC.
- Formulation of University-Level policies:
  - Academic Policy
  - Research Policy
  - Faculty Recruitment & Development Policy
  - Examination Policy
  - IT and e-Governance Policy
  - Other Policies required to effective functioning
- Full implementation of **Outcome-Based Education (OBE)**
- Creation of School-level and Department-level **Quality Cells**
- Digitization and systematic documentation of:
  - Teaching–learning processes

- Faculty performance records
- Student feedback
- Governance and extension activities

### **Phase II: Quality Maturation (Years 2–4)**

- Internal and external academic audits
- Strengthening research output through:
  - Centres of Excellences
  - Publications, patents and funded projects
- Expansion of industry collaboration and internships
- Full deployment of LMS and ERP systems
- Continue of participation and get ranked in **NIRF**
- Green campus, sustainability and community engagement initiatives

### **Phase III: NAAC Accreditation (Years 4–5)**

- Submission of IIQA under University category
- Preparation and submission of SSR
- NAAC Peer Team Visit readiness
- Target: **A++ High Maturity / High Quality accreditation status in the first cycle under University Category**

## **13.6 NBA Accreditation Roadmap**

Ramachandra Deemed to be University will adopt a **structured, program-wise NBA accreditation roadmap**, ensuring strong Outcome-Based Education (OBE), governance maturity and continuous quality improvement across all eligible programmes.

### **Phase I: OBE & Structural Readiness (Years 1–2)**

- Establishment of a **University-Level NBA Coordination Cell** under IQAC
- Identification and prioritization of **eligible UG & PG programmes** for NBA
- Strengthening the **Program Assessment Committees (PACs)** and **Department Advisory Committees (DACs)**
- Revising and adoption of NBA-aligned policies:
  - Outcome-Based Education (OBE) Policy
  - Curriculum Design & Review Policy
  - Assessment & Evaluation Policy
  - Faculty Competency & Development Policy
  - Industry Interaction & Internship Policy
- Clear articulation and mapping of:
  - Vision, Mission and PEOs
  - Program Outcomes (POs) and PSOs

- CO–PO–PSO mapping matrices
- Capacity building through:
  - NBA & OBE orientation programmes for faculty
  - Workshops on Blooms Taxonomy, rubrics and assessment tools
- Digitized documentation of:
  - Curriculum and syllabi
  - Course files and lesson plans
  - Student performance and feedback
  - Faculty profiles and workload

## **Phase II: Implementation & Quality Consolidation (Years 2–4)**

- Full-scale **implementation of OBE** across all programmes
- Continuous assessment and attainment analysis of COs, POs and PSOs
- Strengthening faculty and academic processes through:
  - Faculty training, certifications and FDPs
  - Research publications, patents and consultancy
  - Sponsored and funded research projects
- Enhancement of industry linkage:
  - MoUs with industries and professional bodies
  - Structured internships, industry projects and guest lectures
  - Industry participation in curriculum review and BOS
- Improvement of student performance indicators:
  - Retention and graduation success index
  - Higher studies, placements and entrepreneurship outcomes
- Infrastructure and learning resource augmentation:
  - Laboratories and computing facilities
  - Library and e-resources
  - LMS-based academic delivery and ERP integration
- Conduct of **internal mock NBA audits** and gap analysis
- Evidence-based continuous improvement actions (CIA)

### Phase III: NBA Accreditation (Years 4–5)

- Finalization of **Self-Assessment Reports (SARs)** for selected programs
- Validation of quantitative and qualitative metrics as per NBA manuals
- Upload and submission of SARs to NBA
- Preparation for **NBA Expert Team Visit**, including:
  - Faculty and student interaction readiness
  - Laboratory and facility readiness
  - Document verification and displays
- Addressing pre-visit observations and strengthening weak indicators
- Target: **NBA Accreditation for all eligible programs in the first cycle**, with progressive expansion to remaining programs

Ramachandra Deemed to be University will establish a **robust NBA-compliant academic ecosystem**, ensuring:

- Strong industry-aligned educational system
- Higher graduate outcomes and employability
- Sustainable academic excellence and national recognition

## 13.7 NIRF and Ranking Strategy

Building upon the academic and institutional foundation of RCE, Ramachandra Deemed to be University will pursue a structured NIRF strategy.

### Focus Areas

- **Teaching, Learning & Resources (TLR):**  
Improved faculty–student ratio, ICT-enabled learning, faculty quality, financial resources
- **Research & Professional Practice (RP):**  
Publications, funded research projects, patents, consultancy
- **Graduation Outcomes (GO):**  
Success Index, employability, higher studies
- **Outreach & Inclusivity (OI):**  
Gender balance, regional inclusion, scholarships
- **Perception (PR):**  
Branding, collaborations, industry engagement

### Targets

- Year 3: Entry into **Top 300 (Engineering Category) in NIRF**
- Year 5: Entry into **Top 300 (University Category) in NIRF**
- Year 10: Progression towards **Top 250 in NIRF**
- Institutional Accreditation (QS I-GAUGE Benchmarking) by Year 3

- Year 4 onwards: Participation in QS / THE Ranking

### 13.8 Regulatory Compliance and Statutory Approvals

Ramachandra Deemed to be University will ensure **100% compliance** with:

- UGC (Institutions Deemed to be Universities) Regulations
- AICTE norms for technical programmes
- Other statutory councils, as applicable for future programmes
- Recognition under **ANRF** for major research projects
- Recognition under **SIRO-DSIR** for research-based institution

All compliance mechanisms will be **institutionalized through IQAC and e-governance systems**, ensuring transparency and accountability.

### 13.9 Continuous and Sustained Quality Improvement

Quality enhancement will be embedded into daily operations through:

- IQAC-led planning, monitoring and review
- Continuous curriculum revision based on outcome analysis
- Faculty development and leadership programmes
- Research incentives and quality benchmarks
- Student-centric quality initiatives and mentoring
- Industry advisory boards and curriculum co-creation
- Benchmarking with leading national and global institutions

Ramachandra College of Engineering already demonstrates a **functional quality culture** suitable for an engineering institution. The proposed transition to Ramachandra Deemed to be University represents a **strategic elevation**—from compliance-based quality assurance to a **comprehensive, outcome-oriented and globally benchmarked quality ecosystem**.

This transformation ensures that Ramachandra Deemed to be University will emerge as a **high-credibility, high-performance and future-ready institution**, fully aligned with national priorities and global standards in higher education.



*“Ramachandra Deemed to be University commits to establishing a robust internal quality assurance system that promotes academic excellence, accountability and continuous improvement.”*

## Chapter-14

**REGULATORY COMPLIANCE PLAN**

*“Adherence to regulatory frameworks ensures quality assurance, institutional stability and long-term sustainability.”*

### **14.1 Background and Present Regulatory Status of Ramachandra College of Engineering**

Ramachandra College of Engineering (RCE), the existing institution proposed for upgradation into **Ramachandra Deemed to be University**, is currently functioning as a **recognized technical institution** under established statutory and regulatory frameworks.

At present, RCE operates with:

- Approved by UGC under sections 2f & 12B
- Approval from **AICTE** for Engineering and Management programmes
- Affiliation to a State Technical University, **JNTUK, Kakinada**
- Compliance with prescribed norms relating to:
  - Faculty qualifications and workload
  - Laboratories and workshops
  - Infrastructure and safety standards
  - Academic calendar and examinations
  - Student admissions and reservations
- Adherence to statutory requirements related to:
  - Fire and safety
  - Environmental norms
  - Campus regulations
- Implementation of UGC-mandated mechanisms such as:
  - Anti-Ragging Committee
  - Internal Complaints Committee (PoSH)
  - Grievance Redressal Mechanism
  - Other mandated committees

These approvals and practices which are provided in **Annexure 21.10** demonstrate that **RCE already possesses a stable regulatory compliance culture**, forming a **credible foundation** for transition to Deemed-to-be-University status.

## 14.2 Need for Transition to a Deemed-to-be-University Regulatory Framework

While the present regulatory compliance mechanisms at RCE are appropriate for an **affiliated autonomous engineering college**, the Deemed-to-be-University model requires:

- **Direct regulatory accountability to UGC**
- University-level statutory governance bodies
- Academic autonomy
- Financial and administrative powers
- Centralized compliance monitoring and reporting systems
- Continuous disclosure and audit mechanisms

Accordingly, the proposed Ramachandra Deemed to be University will adopt a **comprehensive, proactive and system-driven regulatory compliance framework**, upgrading and expanding the existing practices of RCE.

## 14.3 Statutory Recognition and Approvals – Proposed DTBU Framework

### A. University Grants Commission (UGC)

The proposal for Ramachandra Deemed to be University is submitted under the “**Distinct Category (Existing Institution)**” of the **UGC (Institutions Deemed to be Universities) Regulations, 2023**.

The University shall ensure:

- Establishment as a **not-for-profit entity** under the Sponsoring Body
- Creation and maintenance of the **mandatory Corpus Fund of ₹25 crore**
- Compliance with norms relating to:
  - Land ownership and campus infrastructure
  - Governance structure (BoM, Academic Council, Finance Committee, etc.)
  - Faculty qualifications and service conditions
  - Academic autonomy and quality standards

Post-recognition, the University will maintain:

- Annual Reports and Mandatory Disclosures
- Continuous compliance with UGC inspection and review observations
- Eligibility and application for **UGC 2(f) and 12(B) status**, as per norms

### B. All India Council for Technical Education (AICTE)

Building on the existing AICTE approvals of RCE:

- All Engineering, Technology and Management programmes under R-DTBU will continue to have **AICTE approvals**, as required
- Compliance will be ensured with respect to:
  - Faculty norms
  - Laboratories and computing facilities

- Intake and student–faculty ratio
- Outcome-Based Education (OBE) framework

### C. Local Authority Approvals

The University will ensure continued compliance with:

- Land use and building plan approvals
- Fire and safety certifications
- Environmental and pollution control norms
- Labour and campus safety regulations

All approvals already obtained for RCE will be **reviewed, renewed and expanded**, wherever required, to suit the Deemed-to-be-University scale.

### D. Other Statutory Bodies (As and When Applicable)

In the event of introducing new programmes in future, approvals may be obtained from:

- Council of Architecture (COA)
- Other Councils (if relevant)

Such approvals are **not part of the current proposal**, but the compliance framework is designed to accommodate future expansion.

## 14.4 Comparative Regulatory Status: RCE vs Proposed R-DTBU

<b>Regulatory Dimension</b>	<b>Present Status – RCE</b>	<b>Proposed DTBU Framework</b>
Regulatory Authority	AICTE + Affiliating University (JNTUK-Kakinada)	UGC (Direct), AICTE (Programme level)
Academic Autonomy	Limited	Full academic autonomy
Governance Bodies	College-level committees	Statutory University bodies
Compliance Monitoring	Manual / periodic	Dedicated Regulatory Affairs Unit
Disclosures & Reporting	As per affiliating norms	UGC-mandated annual disclosures
Inspections & Audits	Periodic	Continuous, multi-agency audits

## 14.5 Regulatory Monitoring and Compliance Committee

To institutionalize compliance, Ramachandra Deemed to be University will establish a **Regulatory Affairs Unit (RAU)** under the office of Registrar and IQAC.

## Functions of RAU

- Monitoring UGC, AICTE and statutory notifications
- Maintaining approval records and compliance documentation
- Coordinating inspections, reviews and reporting
- Managing timelines for submissions and renewals

## Compliance Calendar

- Annual compliance calendar covering:
  - UGC
  - AICTE
- Quarterly internal compliance audits

## 14.6 Alignment with NEP-2020 and National Quality Frameworks

The regulatory compliance framework of R-DTBU is fully aligned with:

- **NEP-2020:** Multidisciplinarity, Academic Bank of Credits, flexible pathways
- **National Credit Framework (NCrF)**
- **NAAC maturity-based accreditation framework**
- **NBA accreditation framework**
- **NIRF and AISHE reporting requirements**
- **ANRF and national research governance norms**

Ramachandra College of Engineering already demonstrates **consistent statutory compliance and regulatory discipline** appropriate to an affiliated engineering institution. The proposed transition to Ramachandra Deemed to be University represents a **systematic elevation** to a **university-level regulatory governance model**, characterized by:

- Direct accountability to UGC
- Robust statutory governance structures
- Continuous compliance monitoring
- Transparency, credibility and long-term sustainability

This Regulatory Compliance Plan ensures that Ramachandra Deemed to be University will function as a **legally sound, academically autonomous and nationally credible institution** from inception.



*“Ramachandra Deemed to be University commits to full compliance with all statutory, regulatory and accreditation requirements prescribed by national and state regulatory bodies.”*

## Chapter-15

### DISTINCT FEATURES OF R-DTBU



*“The distinctiveness of a University lies in its ability to integrate academic excellence, multidisciplinary innovation and regional relevance into a coherent institutional identity.”*

**Ramachandra Deemed to be University** is envisioned as a **future-ready institution** that integrates **education, research, innovation, entrepreneurship and societal engagement**, while responding to **regional aspirations of the Eluru–West Godavari region** and **national priorities such as Atmanirbhar Bharat and Viksit Bharat @2047**.

Building on the **academic credibility, autonomy and governance maturity** of **Ramachandra College of Engineering (Autonomous)**, the proposed Deemed to be University represents a **qualitative transformation** from a single-discipline engineering institution into a **comprehensive multidisciplinary university ecosystem**.

The distinctiveness of R-DTBU arises from:

- Its **industry-supported and future-technology-driven programme portfolio**
- **Deep multidisciplinary and transdisciplinary academic architecture**
- **Integration of IKS, liberal arts, management and technology**
- **Strong regional relevance with national and global outlook**
- **Commitment to research, innovation, startups and community transformation**

### 15.1 Multidisciplinary and Transdisciplinary Framework

#### 15.1.1 Multidisciplinary University Structure

R-DTBU adopts a **School-based multidisciplinary framework**, enabling students to **learn across disciplinary boundaries**, pursue **major–minor combinations** and engage in **inter-school academic mobility**.

The proposed academic structure spans the following Schools:

- School of Engineering and Technology
- School of Computing
- School of Applied Sciences
- School of Management
- School of Liberal Arts
- School of Indian Knowledge Systems
- School of Architecture

Each School contributes to a **shared academic ecosystem**, rather than operating in isolation.

### 15.1.2 Flexible Academic Architecture (NEP-2020 Aligned)

R-DTBU's academic framework incorporates:

- Choice Based Credit System (CBCS)
- Multiple Entry–Exit options
- Academic Bank of Credits (ABC) compatibility
- Inter-School credit transfer
- Major–Minor–Elective pathways
- Experiential learning, internships and project-based assessment

This enables students to:

- Combine **engineering with management, AI, policy, design, or IKS**
- Integrate **sciences with computing and sustainability**
- Blend **liberal arts with digital technologies and analytics**
- Pursue **entrepreneurship, research, or higher studies** seamlessly

### 15.1.3 Transdisciplinary Learning Philosophy

Beyond multidisciplinary, R-DTBU emphasizes **transdisciplinary education**, where **real-world problems, industry challenges and societal needs** become the centre of learning.

Key transdisciplinary thrust domains include:

- Semiconductor Technology & Chip Design
- Robotics, Automation & Intelligent Manufacturing
- Quantum Computing and Advanced Computing Systems
- AI, Data Analytics & Cyber Systems
- Sustainable Technology & Climate Systems
- Digital Commerce, FinTech & Entrepreneurship
- Indian Knowledge Systems applied to wellness, psychology, governance and policy
- Architecture–Engineering integration for smart built environments

Students and faculty from multiple Schools collaborate through:

- Theme-based design studios
- Interdisciplinary research labs
- Innovation and incubation projects
- Community-centric problem-solving initiatives

This prepares graduates with **T-shaped and  $\pi$ -shaped competencies**—depth in one discipline with broad interdisciplinary capability.

### 15.1.4 Integration of Teaching, Research and Innovation

The multidisciplinary framework is tightly integrated with:

- Centres of Excellence
- Research clusters and policy labs

- Industry-supported laboratories
- Startup incubation and entrepreneurship ecosystem
- Community and regional development projects

As a result:

- Teaching is **research-informed**
- Research is **application-oriented**
- Innovation is **industry-linked and socially relevant**

## 15.2 Distinct Category Justification

### 15.2.1 Compliance with UGC Distinct Category Objectives

R-DTBU clearly satisfies the intent and spirit of the **UGC Distinct Category** by demonstrating:

- A **clearly differentiated academic vision**
- Emphasis on **emerging, high-impact and nationally relevant disciplines**
- Strong **multidisciplinary and transdisciplinary orientation**
- Integration of **technology, management, liberal arts and IKS**
- Commitment to **research, innovation and entrepreneurship**
- Regional relevance with global benchmarking

The proposed University goes beyond conventional programme expansion and establishes a **distinct institutional identity**.

### 15.2.2 Distinctiveness of the Proposed Programme Portfolio

R-DTBU proposes a **carefully phased introduction of new-age programmes**, many of which are **not commonly offered by conventional universities**, thereby justifying its distinct-category status.

**Key distinctive programme domains include:**

#### **Emerging & Strategic Technologies**

- B.Tech – Semiconductor Technology & Chip Design
- B.Tech – Quantum Computing
- Integrated B.Tech–M.Tech – Robotics, Automation & Intelligent Manufacturing
- M.Tech – Embedded Systems for Automotive & Defence Electronics

#### **Advanced Computing & Cyber Systems**

- B.Sc – Artificial Intelligence & Data Analytics
- B.Sc – Cyber Systems & Forensic Sciences
- M.Sc (Research) – Foundation Models & Domain-Specific LLMs

#### **Sustainability & Applied Sciences**

- B.Sc – Sustainable Technology & Climate Systems

- B.Sc – Semiconductor Devices & Nano-Electronics
- B.Sc – Robotronics

### Entrepreneurship, Digital Economy & Management

- BBA (Hons.) – Entrepreneurship & Start-ups
- MBA – Start-up Failure Analytics & Case Research
- B.Com – Digital Commerce & Financial Technologies
- B.Voc – Aquaculture Operations & Farm Management

### Liberal Arts, IKS & Human Development

- B.A – Psychology, Cognitive Science & Mental Health
- B.A – Fashion Designing (Digital Fashion)
- B.A – Yoga & Life Sciences

### Architecture & Built Environment

- Integrated B.Arch–M.Arch – Architecture & Engineering

These programmes are classified as **Distinct (D)**, **Industry-Supported (I)**, **Multidisciplinary (M)** and **Transdisciplinary (T)** and are introduced in a **five-year phased manner**, ensuring quality and sustainability.

### 15.2.3 Transformation from Autonomous College to Distinct Category University



Figure 15.1: Transformation of Ramachandra College to University

The transition from **Ramachandra College of Engineering (Autonomous)** to R-DTBU represents:

- Expansion from **engineering-centric education** to **multidisciplinary university education**
- Strengthening of **research and doctoral culture**
- Introduction of **IKS, liberal arts, management and architecture**
- Enhanced **academic autonomy and governance flexibility**

- Greater capacity for **international collaboration and global benchmarking**

This transformation is **structural, academic and philosophical**, not merely administrative.

#### 15.2.4 Regional, National and Global Relevance

Located in the **Eluru–West Godavari region**, R-DTBU is uniquely positioned to:

- Address **regional skill gaps** in technology, aquaculture, sustainability and services
- Support **MSMEs, agri-based industries and emerging enterprises**
- Promote **entrepreneurship and start-up culture**
- Contribute to **inclusive and balanced regional development**

At the national level, the University aligns with:

- National Education Policy 2020
- India Semiconductor Mission
- National Quantum Mission
- Digital India and Startup India
- Atmanirbhar Bharat
- Viksit Bharat @2047

#### 15.2.5 Programme-wise Distinctiveness Justification

The uniqueness and distinctiveness of all the 19 proposed programmes are given below.

**Table 15.1: Programme-wise Distinctiveness**

S.No	Programme	Distinctiveness Justification
1	BTech Semiconductor Technology & Chip Design	<ul style="list-style-type: none"> <li>• <b>National Impact:</b> India is in need of qualified workforce to support the India Semiconductor Mission (ISM) to enhance the economy, establish technical sovereignty and lessen reliance on imports, semiconductor courses are essential to India's national significance. These courses are essential for fostering creativity, building a strong ecosystem for chip design and production and securing the country's place in the world of technology. The sector is projected to create over a million jobs by next few years as a part of Industry 4.0, including roles in design, fabrication, testing and manufacturing. We need a strong talent pool is needed to embrace this technological shift.</li> <li>• <b>Overall Impact:</b> The semiconductor industry is a massive global market in itself, with sales reaching hundreds of billions of dollars annually. It supplies the vital chips that enable contemporary goods and services to function, enabling trillions of dollars in downstream industries like electronics, automobile and finance. For nations with a significant presence in the sector, it is a big employer and a factor in boosting economic strength and competitiveness. India can improve its standing internationally and establish itself as a center for electronics innovation and production by emerging as a key</li> </ul>

		<p>player in the semiconductor sector. This sector fosters innovation that improves many facets of daily life by making gadgets more potent, effective and small.</p> <ul style="list-style-type: none"> <li>• <b>Employability:</b> Initiatives like the India Semiconductor Workforce Development Program (ISWDP) and courses mapped to the National Skills Qualification Framework (NSQF) are critical for developing a workforce that meets industry needs.</li> <li>• <b>Government Initiatives:</b> The India Semiconductor Mission (ISM, 2021) with an outlay of ₹76,000 crores under the Production Linked Incentive (PLI) scheme is aimed at making India a global hub for semiconductor design and manufacturing.</li> <li>• <b>National Electronics Policy 2019</b> targets a \$400 billion electronics manufacturing industry by 2025, requiring skilled chip designers, fabrication engineers and materials scientists.</li> <li>• <b>Skilled Manpower Demand:</b> India needs over 2,00,000 semiconductor professionals in design, manufacturing and R&amp;D over the next decade.</li> </ul>
2	BTech Embedded Systems for Automotive & Defence Electronics	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and neighbouring southern states are emerging hubs for automotive electronics, EV systems, defence manufacturing, aerospace components and electronics MSMEs, creating strong regional demand for engineers skilled in embedded hardware–software integration, real-time systems and control electronics.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require over 3–4 lakh embedded systems engineers by 2030, driven by growth in automotive electronics, electric vehicles, defence electronics, avionics, industrial automation and IoT systems, with a current skill gap exceeding 40% in advanced embedded and real-time system design.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme directly aligns with Make in India, Atmanirbhar Bharat, Automotive Mission Plan, Defence Production &amp; Export Promotion Policy (DPEPP), National Policy on Electronics (NPE) and EV &amp; Smart Mobility initiatives, supporting indigenous design and manufacturing of critical electronic systems.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in automotive OEMs, EV manufacturers, defence PSUs, avionics firms, embedded product companies, semiconductor and electronics startups and system integrators, with high placement potential (&gt;90%) across core engineering and R&amp;D roles.</li> <li>• <b>Distinct and Future-Ready Nature of the Programme:</b> By integrating embedded hardware design, real-time operating systems, automotive electronics, defence-grade systems, functional safety, cybersecurity and industry-linked projects, the programme represents a specialised, industry-supported and strategically important engineering offering, clearly distinguishing it from conventional electronics programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>

3	Integrated BTech-MTech Robotics, Automation & Intelligent Manufacturing	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern industrial corridor are witnessing rapid adoption of automation, robotics, EV manufacturing, electronics assembly, logistics automation and smart factories, creating strong regional demand for engineers with integrated competencies in robotics, controls, AI-enabled manufacturing and industrial systems.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require 1–1.2 million robotics, automation and intelligent manufacturing professionals by 2035, driven by Industry 4.0/5.0 transition, smart manufacturing, EV production, defence manufacturing and logistics automation, with a current skill gap exceeding 45% in integrated robotics and intelligent systems.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Make in India, Atmanirbhar Bharat, National Policy on Advanced Manufacturing, Production Linked Incentive (PLI) Schemes, National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) and Industry 4.0/5.0 initiatives, supporting indigenous, human-centric and resilient manufacturing ecosystems.</li> <li>• <b>Employability and Industry Absorption:</b> Graduates are employable in robotics manufacturers, automation system integrators, EV and electronics manufacturing units, defence and aerospace production, smart factories, logistics automation firms and industrial R&amp;D centres, with very high employability (&gt;90%) across design, integration, operations and innovation roles.</li> <li>• <b>Distinct and Future-Ready Nature of the Programme:</b> The integrated UG–PG structure uniquely combines robotics, automation, AI, cyber-physical systems, digital twins, smart manufacturing and industry-embedded projects, producing deeply skilled, practice-oriented and research-ready professionals, clearly distinguishing it from conventional engineering programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
4	BSc Semiconductor Devices & Nano- Electronics	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern manufacturing corridor are emerging as important nodes for electronics manufacturing, semiconductor design support, EV electronics, defence electronics and advanced materials industries, creating regional demand for graduates with strong foundations in semiconductor devices, nano-electronics and materials science.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require over 2 lakh professionals in semiconductor devices, materials, fabrication support and testing roles over the next decade, driven by rapid expansion of chip design, fabrication, packaging and nano-electronics ecosystems, with a significant skill gap at the science–engineering interface.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme directly aligns with the India Semiconductor Mission (ISM), National Electronics Policy (2019), Make in India, Atmanirbhar Bharat and PLI schemes for electronics and</li> </ul>

		<p>semiconductor manufacturing, supporting India’s goal of building indigenous semiconductor capability and materials expertise.</p> <ul style="list-style-type: none"> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in semiconductor fabs, electronics manufacturing units, nano-materials labs, EV and defence electronics firms, testing and reliability labs, research organisations and higher-education R&amp;D pathways, with strong absorption potential across industry, research and postgraduate education.</li> <li>• <b>Distinct and Future-Focused Nature of the Programme:</b> By combining solid-state physics, semiconductor device theory, nano-electronics, fabrication basics, characterisation techniques and industry-linked laboratories, the programme represents a specialised, science-driven and future-ready undergraduate offering, clearly distinct from conventional B.Sc. Physics or Electronics programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
5	BSc Robotronics	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern industrial belt are witnessing rapid growth in automation, electronics manufacturing, logistics, healthcare technology, agri-automation and MSME-based robotics adoption, creating regional demand for graduates skilled in robotics systems, electronics, sensors and control technologies.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require over 5–6 lakh robotics and automation technicians and technologists by 2035, driven by Industry 4.0/5.0 transition, smart factories, service robotics, defence applications and agri-robotics, with a current skill gap exceeding 45% at the applied science and technologist level.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Make in India, Atmanirbhar Bharat, National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), PLI schemes for electronics, Digital India and Skill India, supporting indigenous development and deployment of robotic and automation technologies.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in robotics system integration firms, automation companies, electronics manufacturing units, healthcare technology providers, agri-tech startups, logistics automation firms and R&amp;D support roles, with strong placement and career progression potential in technician, technologist and supervisory roles.</li> <li>• <b>Distinct and Practice-Oriented Nature of the Programme:</b> By uniquely integrating robotics, electronics, embedded systems, sensors, control systems, AI basics and hands-on laboratory-intensive learning, the programme offers a distinct, application-focused undergraduate pathway, clearly differentiating it from conventional physics or electronics degrees and justifying its inclusion under the UGC Distinct Category.</li> </ul>
6	BSc Sustainable	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the coastal–agro–industrial regions of southern India are highly</li> </ul>

	Technology & Climate Systems	<p>vulnerable to climate variability, water stress, extreme weather events and sustainability challenges, creating strong regional demand for professionals trained in climate systems, sustainable technologies, environmental monitoring and resilience planning.</p> <ul style="list-style-type: none"> <li>• <b>National Manpower Requirement:</b> India is projected to require over 3–4 lakh sustainability and climate professionals by 2035, driven by commitments to climate adaptation, renewable energy transition, ESG compliance, disaster resilience and sustainable infrastructure, with a significant skill gap in technology-enabled climate and sustainability expertise.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with National Action Plan on Climate Change (NAPCC), Nationally Determined Contributions (NDCs) under the Paris Agreement, National Solar Mission, National Mission for Sustainable Agriculture, Swachh Bharat, Atmanirbhar Bharat and NEP-2020, supporting India’s climate and sustainability commitments.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in renewable energy firms, environmental consulting agencies, climate analytics organisations, infrastructure and smart city projects, government agencies, NGOs, ESG compliance units and sustainability-focused startups, with strong career pathways in both industry and public-sector domains.</li> <li>• <b>Distinct and Interdisciplinary Nature of the Programme:</b> By integrating climate science, sustainable engineering technologies, data analytics, environmental systems, policy awareness and field-based applications, the programme represents a rare, interdisciplinary undergraduate offering, clearly distinguishing it from conventional environmental science degrees and justifying its inclusion under the UGC Distinct Category.</li> </ul>
7	BTech Quantum Computing	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> While quantum technology is a frontier domain with national and global significance andhra Pradesh and the southern technology corridor are emerging as contributors to advanced computing, electronics, defence R&amp;D and deep-tech startups, creating regional demand for quantum-ready engineers capable of supporting research, simulation, algorithm development and hybrid quantum–classical systems.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require 50,000–75,000 quantum-trained professionals by 2035, spanning quantum computing, quantum communication, quantum materials and quantum cybersecurity, with a current acute shortage of engineers trained at the undergraduate level in quantum technologies.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme is directly aligned with the National Quantum Mission (₹6,003 crore), Digital India, IndiaAI Mission, Make in India and Atmanirbhar Bharat, supporting India’s objective of developing indigenous quantum hardware, software, algorithms and secure communication systems.</li> </ul>

		<ul style="list-style-type: none"> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in quantum computing companies, deep-tech startups, national research laboratories, defence and space organisations, financial services analytics, pharmaceutical research and global technology firms, with strong pathways to high-value R&amp;D roles, postgraduate studies and international fellowships.</li> <li>• <b>Distinct and Strategic Nature of the Programme:</b> By integrating quantum mechanics, quantum algorithms, quantum programming, quantum hardware basics, AI-quantum hybrid systems and quantum-safe cryptography, the programme represents a rare, high-impact and future-defining undergraduate engineering offering, clearly distinguishing it from conventional computing programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
8	BSc Artificial Intelligence & Data Analytics	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern digital economy corridor are witnessing rapid adoption of AI-driven analytics in manufacturing, agriculture, healthcare, finance, governance and startups, creating strong regional demand for graduates with applied skills in artificial intelligence, data analytics and decision-support systems.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require 5–6 million AI and data analytics professionals by 2030, with a current skill gap of 40–45%, particularly at the applied undergraduate level where industry-ready analytics, data engineering and AI application skills are limited.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns directly with the IndiaAI Mission, Digital India, National Data Governance Framework Policy, Startup India, Skill India and NEP-2020, supporting India’s transition towards a data-driven digital economy and AI-enabled governance.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in IT and analytics firms, AI startups, fintech, health-tech, agri-tech, manufacturing analytics, e-governance projects and consulting organisations, with strong placement potential (85–90%) across analyst, AI associate and data science support roles.</li> <li>• <b>Distinct and Application-Oriented Nature of the Programme:</b> By integrating AI fundamentals, machine learning, data analytics, cloud platforms, domain-specific applications and project-based learning, the programme offers a distinct, industry-aligned undergraduate pathway, clearly differentiating it from conventional computer science or mathematics degrees and justifying its inclusion under the UGC Distinct Category.</li> </ul>
9	BSc Cyber Systems & Forensic Sciences	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern digital corridor are witnessing rapid growth in e-governance, fintech, digital services, smart policing and cybercrime investigation, creating strong regional demand for graduates trained in cyber systems, digital forensics and cyber security fundamentals.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require over 1.5–2 million cyber security and digital forensics professionals by 2030, driven by increasing cyber threats, digital transactions and</li> </ul>

		<p>critical infrastructure digitisation, with a current skill gap of 45–50%, especially in forensics and cyber investigation roles.</p> <ul style="list-style-type: none"> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with the National Cyber Security Policy, Digital India, Cyber Surakshit Bharat, National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), Data Protection and Digital Governance frameworks and NEP-2020, supporting secure digital transformation and cyber resilience.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in cyber security firms, digital forensics labs, law enforcement agencies, IT services, banking and financial institutions, e-governance projects, defence support units and cybercrime investigation cells, with strong employment potential across both public and private sectors.</li> <li>• <b>Distinct and Interdisciplinary Nature of the Programme:</b> By integrating cyber systems, network security, digital forensics, cyber law basics, data protection and hands-on forensic laboratories, the programme represents a rare, interdisciplinary undergraduate offering, clearly distinguishing it from conventional computer science programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
10	MSc (Research) Foundation Models & Domain-Specific LLMs	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern technology ecosystem are rapidly adopting AI-driven solutions in governance, healthcare, agriculture, finance, manufacturing and education, creating strong demand for advanced professionals capable of developing and fine-tuning large language models for domain-specific applications.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require 1–1.5 lakh advanced AI and foundation-model specialists by 2030, particularly in LLM development, model fine-tuning, responsible AI and applied AI research, with a significant shortage of research-trained talent in this deep-tech domain.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme directly aligns with the IndiaAI Mission, Digital India, National Data Governance Framework Policy, Responsible AI initiatives, NEP-2020 and Atmanirbhar Bharat, supporting India’s goal of building indigenous, trustworthy and domain-adapted AI models.</li> <li>• <b>Employability and Research Absorption:</b> Graduates are employable in AI research labs, deep-tech startups, global technology companies, applied AI teams in healthcare, finance and governance, national research institutions and doctoral programmes, with strong absorption into high-value R&amp;D and innovation roles.</li> <li>• <b>Distinct and Research-Intensive Nature of the Programme:</b> By focusing on foundation models, domain-specific LLM design, large-scale training, evaluation, ethics and responsible AI, the programme represents a rare, research-oriented postgraduate offering in India, clearly distinguishing it from conventional AI or</li> </ul>

		data science degrees and justifying its inclusion under the UGC Distinct Category.
11	BBA (Hons) Entrepreneurship & Start-ups	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern MSME–startup ecosystem are witnessing rapid growth in first-generation enterprises, agri-based startups, digital services, manufacturing MSMEs and innovation-led businesses, creating strong regional demand for graduates trained in entrepreneurship, venture creation and startup management.</li> <li>• <b>National Manpower Requirement:</b> India adds over 1–1.5 lakh new startups annually, generating a sustained demand for entrepreneurial leaders, startup managers and venture operations professionals, with a clear need for formally trained founders and startup executives to improve survival and scalability of new ventures.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Startup India, Atal Innovation Mission, Make in India, MSME Development Programmes, Digital India and NEP-2020, supporting India’s objective of fostering job creators rather than job seekers.</li> <li>• <b>Employability and Venture Absorption:</b> Graduates are employable as startup founders, co-founders, venture managers, incubator associates, innovation consultants, MSME managers and family business successors, with strong absorption into startups, incubators, accelerators and entrepreneurial ecosystems, as well as self-employment pathways.</li> <li>• <b>Distinct and Practice-Oriented Nature of the Programme:</b> By integrating venture ideation, design thinking, startup finance, IP management, digital marketing, incubation support and live startup projects, the programme offers a hands-on, outcome-driven undergraduate pathway, clearly distinguishing it from conventional BBA programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
12	MBA Start-up Failure Analytics & Case Research	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern startup corridor are witnessing rapid growth of early-stage startups, MSMEs and innovation-led enterprises, where a significant proportion face challenges related to strategy, finance, scalability and governance, creating strong demand for professionals trained in startup diagnostics and evidence-based decision-making.</li> <li>• <b>National Manpower Requirement:</b> India records high startup churn rates (over 60% within the first five years), creating a critical need for analysts, researchers, mentors and managers skilled in failure analytics, case research and venture risk assessment to improve startup survival and sustainable growth at a national scale.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Startup India, Atal Innovation Mission, Make in India, MSME Development Programmes, Digital India and NEP-2020, supporting the national objective of strengthening resilient, data-driven and sustainable entrepreneurship ecosystems.</li> </ul>

		<ul style="list-style-type: none"> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in startup incubators and accelerators, venture capital and private equity firms, consulting organisations, MSME advisory services, corporate innovation units, policy think tanks and academic research centres, with strong employability in high-value analytical and advisory roles.</li> <li>• <b>Distinct and Research-Driven Nature of the Programme:</b> By uniquely integrating startup failure analytics, case-based research, venture data analysis, behavioural insights, governance studies and live incubation engagement, the programme represents a rare, research-intensive and outcome-oriented MBA offering, clearly distinguishing it from conventional MBA programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
13	BCom Digital Commerce & Financial Technologies	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern digital economy are witnessing rapid growth in e-commerce, digital payments, fintech services, MSME digitalisation and platform-based businesses, creating strong regional demand for commerce graduates skilled in digital business models and financial technologies.</li> <li>• <b>National Manpower Requirement:</b> India’s fintech and digital commerce ecosystem is projected to require 3–4 lakh skilled professionals annually, driven by expansion in UPI, digital lending, e-commerce platforms, reg-tech and financial analytics, with a clear shortage of commerce graduates trained in technology-enabled financial systems.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Digital India, India Stack initiatives, Startup India, Make in India, RBI-led digital payment reforms and NEP-2020, supporting India’s transition towards a cash-light, digitally empowered economy.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in fintech startups, e-commerce companies, banks and NBFCs, payment service providers, digital accounting firms, reg-tech companies and MSMEs, with strong placement potential across operations, analytics, compliance and digital finance roles.</li> <li>• <b>Distinct and Technology-Integrated Nature of the Programme:</b> By integrating commerce fundamentals with fintech platforms, digital payments, blockchain basics, financial analytics and e-commerce systems, the programme offers a future-ready, industry-aligned undergraduate pathway, clearly distinguishing it from conventional B.Com programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
14	BVoc Aquaculture Operations & Farm Management	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh—particularly the Eluru, West Godavari–Krishna aquaculture belt—is India’s leading hub for shrimp and freshwater aquaculture, creating strong regional demand for skill-trained professionals in scientific aquaculture operations, farm management, biosecurity and value-chain management.</li> </ul>

		<ul style="list-style-type: none"> <li>• <b>National Manpower Requirement:</b> India’s aquaculture sector requires over 5–6 lakh skilled and semi-professional workforce across farming, hatcheries, feed management, disease control and post-harvest operations by 2030, with a significant gap in formally trained, vocationally certified aquaculture professionals.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Pradhan Mantri Matsya Sampada Yojana (PMMSY), Blue Economy Policy, Skill India, Make in India, Atmanirbhar Bharat and NEP-2020, supporting sustainable fisheries growth, rural livelihoods and export competitiveness.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in aquaculture farms, hatcheries, feed and input companies, seafood processing units, export houses, cooperatives and agri-entrepreneurship ventures, with strong self-employment and local enterprise creation potential.</li> <li>• <b>Distinct and Skill-Oriented Nature of the Programme:</b> By integrating hands-on farm training, scientific aquaculture practices, digital farm monitoring, sustainability, quality assurance and business management, the programme offers a highly practice-oriented vocational pathway, clearly distinguishing it from conventional fisheries or agriculture degrees and justifying its inclusion under the UGC Distinct Category.</li> </ul>
15	BA Psychology, Cognitive Science & Mental Health	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern states are witnessing rising challenges related to mental health, stress, substance use, learning difficulties and workplace wellbeing, creating strong regional demand for graduates trained in psychology, cognitive science and mental health awareness across education, healthcare and social sectors.</li> <li>• <b>National Manpower Requirement:</b> India faces a significant shortage of mental health professionals, with an estimated requirement of 1–1.2 lakh trained psychology and mental health professionals <b>and</b> a gap exceeding 60%, particularly at the community, educational and preventive-care levels.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with the National Mental Health Programme (NMHP), National Health Policy, NEP-2020, Digital Health Mission and Ayushman Bharat, supporting India’s focus on preventive mental healthcare, wellbeing and inclusive education.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in schools and colleges, mental health NGOs, wellness centres, HR and organisational wellbeing units, rehabilitation centres, research organisations and public health initiatives, with strong pathways to postgraduate study, counselling certification and allied health careers.</li> <li>• <b>Distinct and Interdisciplinary Nature of the Programme:</b> By integrating psychology with cognitive science, neuroscience basics, mental health studies, data-informed assessment and experiential learning, the programme represents a rare interdisciplinary undergraduate offering, clearly distinguishing it from conventional</li> </ul>

		psychology degrees and justifying its inclusion under the UGC Distinct Category.
16	BA Fashion Designing - Digital Fashion	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern textile–apparel ecosystem are witnessing rapid growth in fashion manufacturing, apparel exports, design houses and digital retail, creating strong regional demand for professionals trained in digital fashion design, virtual prototyping and technology-enabled apparel development.</li> <li>• <b>National Manpower Requirement:</b> India’s textile, apparel and fashion industry—employing over 45 million people—requires a growing pool of digitally skilled designers as the sector adopts CAD/CAM, 3D design, virtual sampling, digital merchandising and e-commerce, with a clear skill gap in technology-driven fashion design.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Make in India, PLI Scheme for Textiles, Skill India, Digital India, Startup India and NEP-2020, supporting India’s objective of strengthening its global competitiveness in fashion, textiles and creative industries.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in fashion and apparel companies, design studios, digital fashion platforms, e-commerce brands, export houses, media and creative agencies, with strong opportunities for freelancing, entrepreneurship and fashion startups.</li> <li>• <b>Distinct and Future-Oriented Nature of the Programme:</b> By integrating traditional fashion design with digital tools such as 3D fashion modelling, virtual fashion, digital textiles, sustainable design practices and creative technologies, the programme represents a distinct, future-ready liberal arts offering, clearly differentiating it from conventional fashion programmes and justifying its inclusion under the UGC Distinct Category.</li> </ul>
17	Integrated BA- MA Interior Designing & Smart Systems	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern urban–infrastructure corridor are witnessing rapid growth in real estate development, smart buildings, commercial interiors, hospitality projects and urban housing, creating strong demand for professionals skilled in interior design integrated with smart building systems and digital technologies.</li> <li>• <b>National Manpower Requirement:</b> India’s construction, real estate and smart infrastructure sectors require over 3–4 lakh trained interior design and building systems professionals by 2035, driven by Smart Cities Mission, urbanisation, green buildings and digital living environments, with a significant skill gap in technology-enabled interior design.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Smart Cities Mission, AMRUT, National Building Code (NBC), Energy Conservation Building Code (ECBC), Make in India, Digital India and NEP-2020, supporting sustainable, technology-driven and user-centric built environments.</li> </ul>

		<ul style="list-style-type: none"> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in interior design firms, smart building solution providers, architectural practices, real estate developers, hospitality and healthcare infrastructure projects, urban design consultancies and smart home startups, with strong career progression into design leadership and specialised consultancy roles.</li> <li>• <b>Distinct and Integrated Nature of the Programme:</b> By combining interior design, smart systems (IoT, lighting, HVAC, energy management), sustainability, digital modelling and industry-embedded design studios within an integrated UG–PG structure, the programme offers a rare, future-ready design pathway, clearly distinguishing it from conventional interior design degrees and justifying its inclusion under the UGC Distinct Category.</li> </ul>
18	BA Yoga & Life Sciences	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern states have a strong and growing ecosystem for yoga, wellness, preventive healthcare and lifestyle management, creating regional demand for graduates trained in yogic sciences integrated with life sciences and human wellbeing.</li> <li>• <b>National Manpower Requirement:</b> India requires over 1–1.5 lakh trained yoga and wellness professionals to support expanding needs in preventive healthcare, schools, workplaces, wellness centres and community health programmes, with a clear shortage of scientifically trained yoga practitioners.</li> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with the Ministry of AYUSH initiatives, National Health Policy, NEP-2020, Ayushman Bharat, International Day of Yoga framework and Fit India Movement, supporting India’s focus on holistic, preventive and integrative healthcare.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in wellness centres, hospitals, educational institutions, rehabilitation centres, corporate wellness programmes, NGOs and self-practice/entrepreneurial ventures, with strong pathways to higher studies, certification and professional practice.</li> <li>• <b>Distinct and Integrative Nature of the Programme:</b> By integrating traditional yoga practices with anatomy, physiology, psychology, nutrition and lifestyle sciences, the programme represents a rare, interdisciplinary liberal arts offering, clearly distinguishing it from conventional yoga certification courses and justifying its inclusion under the UGC Distinct Category.</li> </ul>
19	Integrated BArch-MArch Integrated Architecture & Engineering	<ul style="list-style-type: none"> <li>• <b>Regional, State and National Relevance:</b> Andhra Pradesh and the southern growth corridor are witnessing rapid expansion in urban housing, infrastructure, industrial parks, smart cities and coastal-resilient development, creating strong demand for professionals who can integrate architectural design with engineering systems for complex built environments.</li> <li>• <b>National Manpower Requirement:</b> India is projected to require over 2–3 lakh advanced architecture and built-environment professionals by 2035, driven by urbanisation, infrastructure investment, green buildings and smart infrastructure, with a</li> </ul>

		<p>significant skill gap in integrated architecture–engineering competencies.</p> <ul style="list-style-type: none"> <li>• <b>Alignment with Government Missions &amp; Policies:</b> The programme aligns with Smart Cities Mission, AMRUT, PM Gati Shakti, National Infrastructure Pipeline, Energy Conservation Building Code (ECBC), National Building Code (NBC), Make in India and NEP-2020, supporting sustainable, technology-enabled and resilient infrastructure development.</li> <li>• <b>Employability and Sectoral Absorption:</b> Graduates are employable in architectural and engineering consultancies, infrastructure developers, smart building firms, urban planning agencies, green building and sustainability consultancies, real estate and industrial project organisations, with strong progression into design leadership and specialised practice roles.</li> <li>• <b>Distinct and Integrated Nature of the Programme:</b> By combining architectural design, structural and building services engineering, digital design tools (BIM), smart systems, sustainability and industry-embedded studios within an integrated UG–PG structure, the programme represents a rare, future-ready offering, clearly distinguishing it from conventional architecture degrees and justifying its inclusion under the UGC Distinct Category.</li> </ul>
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### 15.3 Industries Identified for Industry-Support of the Proposed Programmes

Ramachandra Deemed to be University (R-DTBU) proposes a **strong industry-supported academic model**, wherein industry participation is embedded across **curriculum design, internships, laboratories, joint research, innovation projects, incubation and placements**.

The industry ecosystem supporting R-DTBU has been identified based on:

- The distinct and emerging nature of the proposed programmes
- Regional industrial strengths of Andhra Pradesh and the southern corridor
- National priority sectors and global technology trends

#### Sector-wise Industry Support

##### Engineering, Semiconductors & Advanced Manufacturing

- Semiconductor design and electronics manufacturing companies
- Automotive electronics, EV and defence electronics firms
- Robotics, automation and intelligent manufacturing system integrators

##### Computing, AI & Digital Technologies

- IT services and AI solution providers
- Cloud computing, data analytics and cybersecurity firms
- Deep-tech startups working on AI, LLMs and foundation models

### Applied Sciences & Sustainability

- Renewable energy and climate-technology organisations
- Environmental consulting and sustainability analytics firms
- Electronics testing, materials science and nano-electronics labs

### Management, Commerce & Entrepreneurship

- FinTech firms, digital payment platforms and e-commerce companies
- Startup incubators, accelerators and MSME advisory organisations
- Family business networks and enterprise consulting firms

### Liberal Arts, Design, IKS & Wellness

- Wellness centres, yoga institutions and integrative health organisations
- Design studios, digital fashion and creative industry platforms
- Cultural organisations and IKS research bodies

### Architecture & Built Environment

- Architectural and engineering consultancies
- Smart building and infrastructure solution providers
- Green building and sustainability consulting firms

Industry partners will support:

- **Co-designed curricula and electives**
- **Internships, apprenticeships and live projects**
- **Industry-supported laboratories and Centres of Excellence**
- **Joint research, innovation challenges and startup mentoring**
- **Placement and career pathways**

### Major Industries in Vijayawada Region in the proposed Technology

**Table 15.2: Major Semiconductor & Electronics Industries in Vijayawada Region**

<b>Company</b>	<b>What they do / Role in semiconductors</b>	<b>Address / Location</b>
<b>HCL Technologies</b>	Semiconductor design services, embedded systems, VLSI, verification and engineering services for global chip firms.	IT/SEZ corridor, <b>Amaravati region</b> andhra Pradesh
<b>Tech Mahindra</b>	Chip design support, embedded software, telecom SoC platforms, automotive electronics solutions.	Near <b>Amaravati – Vijayawada IT zone</b> andhra Pradesh
<b>Cyient</b>	Semiconductor IP integration, ASIC/FPGA design support, automotive and aerospace electronics engineering.	<b>Vijayawada / Guntur region</b> andhra Pradesh

<b>Tata Elxsi</b>	Semiconductor validation, embedded platforms, automotive electronics, system-level chip design support.	Proposed / operational presence in <b>Amaravati IT ecosystem</b> andhra Pradesh
<b>SFO Technologies</b>	Electronics manufacturing services (EMS), PCB assembly, testing— supports semiconductor supply chain.	<b>Vijayawada–Guntur industrial belt</b> andhra Pradesh
<b>Kaynes Technology</b>	EMS, PCB fabrication, semiconductor assembly support for industrial & automotive electronics.	<b>Andhra Pradesh electronics manufacturing clusters</b> (serving Vijayawada region)
<b>Centum Electronics</b>	High-reliability electronics, semiconductor assembly/testing for defense & aerospace systems.	Operations linked to <b>AP electronics manufacturing ecosystem</b>
<b>Andhra Pradesh State Electronics Development Corporation</b>	Development of electronics & semiconductor clusters, plug-and-play infrastructure, policy facilitation.	<b>Amaravati</b> andhra Pradesh
<b>EMC Amaravati</b>	Proposed Electronics Manufacturing Cluster supporting semiconductor assembly, testing and EMS units.	<b>Amaravati Capital Region</b> andhra Pradesh

Table 15.3: Embedded Systems Industries in Vijayawada Region

<b>Company / Organisation</b>	<b>What they do / Role in Embedded Systems (Automotive &amp; Defence)</b>	<b>Address / Location</b>
<b>Cyient</b>	Embedded software, real-time systems, FPGA/ASIC integration, avionics and automotive electronics engineering for global OEMs and defence clients.	Vijayawada–Guntur–Amaravati region andhra Pradesh
<b>HCL Technologies</b>	Embedded systems design, AUTOSAR platforms, ADAS software, defence electronics, avionics firmware, system validation.	IT / SEZ corridor, Amaravati region andhra Pradesh
<b>Tech Mahindra</b>	Automotive embedded software, ECU development, telematics, defence communication systems, real-time OS integration.	Near Amaravati–Vijayawada IT corridor andhra Pradesh
<b>Tata Elxsi</b>	Embedded product engineering, automotive electronics (ADAS, infotainment), defence & aerospace embedded platforms.	Operational / project presence aligned to Amaravati IT ecosystem
<b>Centum Electronics</b>	Mission-critical embedded systems, rugged electronics, defence avionics, radar and communication subsystems.	Serving Andhra Pradesh defence & aerospace supply chain
<b>SFO Technologies</b>	Embedded hardware design, PCB assembly, electronics manufacturing	Vijayawada–Guntur industrial belt andhra Pradesh

	for automotive and defence applications.	
<b>Kaynes Technology</b>	Embedded system manufacturing, automotive electronics, industrial controllers, defence-grade electronic assemblies.	Andhra Pradesh electronics manufacturing clusters (regional operations)
<b>Bharat Electronics Limited</b>	Defence embedded systems, radar electronics, communication systems, electronic warfare platforms (through ecosystem linkage).	Linked to AP defence electronics supply ecosystem
<b>AP State Electronics Development Corporation</b>	Promotion of embedded systems, automotive & defence electronics clusters, incubation and infrastructure support.	Amaravati andhra Pradesh
<b>Electronics Manufacturing Cluster Amaravati</b>	Cluster supporting embedded hardware, automotive electronics, defence electronics assembly and testing units.	Amaravati Capital Region andhra Pradesh

**Table 15.4: Robotics, Automation & Intelligent Manufacturing Industries in Vijayawada Region**

<b>Company / Organisation</b>	<b>What they do / Role in Robotics, Automation &amp; Intelligent Manufacturing</b>	<b>Address / Location</b>
<b>Siemens</b>	Industrial automation, PLC/SCADA systems, Industry 4.0 solutions, smart manufacturing platforms for automotive and process industries.	Operations and projects across <b>Amaravati–Vijayawada industrial corridor</b> andhra Pradesh
<b>L&amp;T Technology Services</b>	Robotics engineering, industrial automation, smart factory solutions, digital manufacturing systems.	Engineering services linked to <b>AP industrial &amp; manufacturing ecosystem</b>
<b>Tata Elxsi</b>	Robotics software, autonomous systems, AI-driven manufacturing, digital twins for factories.	Presence aligned to <b>Amaravati IT &amp; engineering services ecosystem</b>
<b>ABB</b>	Industrial robots, motion control, factory automation, robotics cells for manufacturing industries.	Automation projects across <b>Andhra Pradesh industrial clusters</b>
<b>Bosch Global Software Technologies</b>	Smart manufacturing, industrial IoT, robotics software, automotive automation systems.	Technology services supporting <b>AP manufacturing ecosystem</b>
<b>Rockwell Automation</b>	Intelligent manufacturing systems, industrial automation, robotics integration, smart production lines.	Industrial automation solutions deployed in <b>AP manufacturing units</b>
<b>SFO Technologies</b>	Automation solutions, robotic assembly lines, smart electronics manufacturing for industrial and automotive sectors.	Vijayawada–Guntur industrial belt andhra Pradesh

<b>Kaynes Technology</b>	Intelligent manufacturing, automated PCB assembly, robotics-assisted production lines.	Electronics manufacturing units serving <b>Andhra Pradesh clusters</b>
<b>AP State Skill Development Corporation</b>	Skill development in robotics, automation, mechatronics, smart manufacturing under Industry 4.0.	Amaravati andhra Pradesh
<b>Electronics Manufacturing Cluster Amaravati</b>	Supports automation, robotics-enabled manufacturing units, smart factory infrastructure.	Amaravati Capital Region andhra Pradesh

Table 15.5: Major Quantum Computing Industries in Vijayawada Region

<b>Organisation / Company</b>	<b>What they do / Role in Quantum Computing</b>	<b>Address / Location</b>
<b>Andhra Pradesh Innovation Society</b>	Promotes emerging technologies including quantum computing, deep tech incubation, R&D collaboration and startup enablement.	Amaravati andhra Pradesh
<b>AP State Council of Higher Education</b>	Facilitates advanced research programs, curriculum development and academic collaboration in frontier areas including quantum technologies.	Amaravati andhra Pradesh
<b>Centre for Development of Advanced Computing</b>	National mission partner for Quantum Computing; supports quantum algorithms, simulators, HPC–quantum integration and training programs.	Collaborations extended to Andhra Pradesh institutions
<b>Tata Consultancy Services</b>	Quantum algorithms, quantum software research, enterprise use-cases via cloud-based quantum platforms and academic collaborations.	IT ecosystem linkage – Amaravati / Vijayawada region
<b>Infosys</b>	Quantum computing research, simulators, applied quantum algorithms for finance, logistics and optimization problems.	Presence aligned to Andhra Pradesh IT & academic ecosystem
<b>IBM</b>	Cloud-based quantum computing (IBM Quantum), academic partnerships, quantum skill development and research programs.	Access through academic & research collaborations
<b>Google</b>	Quantum algorithms research, quantum AI integration, academic research collaborations (ecosystem access).	Research collaboration access
<b>Indian Institute of Science Education and Research Tirupati</b>	Research in quantum physics, quantum information science and theoretical foundations supporting quantum computing.	Tirupati andhra Pradesh (state-level linkage)

<b>Department of Science and Technology</b>	National Quantum Mission (NQM): funding, infrastructure, manpower development in quantum technologies.	National mission – linked to AP research ecosystem
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**Table 15.6: Major AI and Data Analytics Industries in Vijayawada Region**

<b>Company / Organisation</b>	<b>What they do / Role in AI &amp; Data Analytics</b>	<b>Address / Location</b>
<b>Tata Consultancy Services</b>	AI & ML solutions, data analytics, predictive modelling, automation, AI platforms for industry, government and smart governance.	IT ecosystem linkage – Amaravati / Vijayawada region
<b>Infosys</b>	Artificial Intelligence, big data analytics, cloud analytics, applied AI for finance, healthcare, manufacturing and governance.	Presence aligned to Andhra Pradesh IT & academic ecosystem
<b>HCL Technologies</b>	AI engineering, data analytics, intelligent automation, applied AI for enterprise and public-sector projects.	Amaravati IT / SEZ corridor andhra Pradesh
<b>Tech Mahindra</b>	AI-driven analytics, data science, intelligent automation, AI for telecom, mobility and smart city solutions.	Vijayawada–Amaravati IT corridor andhra Pradesh
<b>Wipro</b>	Artificial Intelligence, data engineering, analytics platforms, AI-enabled digital transformation.	IT services ecosystem serving Andhra Pradesh
<b>IBM</b>	AI platforms (Watson), advanced analytics, AI research collaboration, cloud-based AI tools for academia and industry.	Access through academic & industry collaborations
<b>Microsoft</b>	AI & data analytics via Azure, AI labs, cloud analytics, skilling and academic collaboration programs.	Cloud & academic ecosystem linkage

**Table 15.7: Major Entrepreneurship & Start-ups Ecosystem in Vijayawada Region**

<b>Organisation / Company</b>	<b>What they do / Role in Entrepreneurship &amp; Start-ups</b>	<b>Address / Location</b>
<b>Andhra Pradesh Innovation Society</b>	Nodal agency for startup promotion; incubation, funding support, innovation challenges and deep-tech ecosystem development.	Amaravati andhra Pradesh
<b>Startup Andhra Pradesh</b>	Implements AP Startup Policy; supports ideation, incubation, seed funding, mentoring and market access for startups.	Amaravati andhra Pradesh

<b>Atal Innovation Mission</b>	Establishes Atal Incubation Centres (AICs) and Atal Tinkering Labs (ATLs) to promote innovation and entrepreneurship.	Programs active across Andhra Pradesh
<b>ASSOCHAM Andhra Pradesh</b>	Industry–startup networking, entrepreneurship development programmes, policy advocacy and mentoring.	Vijayawada andhra Pradesh
<b>Confederation of Indian Industry Andhra Pradesh</b>	Startup–industry linkage, MSME and innovation support, entrepreneurship training and market connect.	Vijayawada / Amaravati region
<b>AP State Skill Development Corporation</b>	Entrepreneurship skill development, startup training, innovation-linked skilling and capacity building.	Amaravati andhra Pradesh
<b>Electronics Manufacturing Cluster Amaravati</b>	Enables hardware startups, electronics product companies, prototyping and manufacturing-linked entrepreneurship.	Amaravati Capital Region andhra Pradesh
<b>District Industries Centre Vijayawada</b>	MSME registration, startup facilitation, subsidies, credit linkage and local enterprise development.	Vijayawada andhra Pradesh

Table 15.8: Aquaculture Operations &amp; Farm Management in Vijayawada Region

<b>Organisation / Company</b>	<b>What they do / Role in Aquaculture Operations &amp; Farm Management</b>	<b>Address / Location</b>
<b>Andhra Pradesh Fisheries Department</b>	Policy formulation, regulation, extension services, training in scientific aquaculture practices and farm management support.	Amaravati / Vijayawada andhra Pradesh
<b>Coastal Aquaculture Authority of India</b>	Regulation of coastal aquaculture, licensing, biosecurity norms, sustainable shrimp and fish farming practices.	Regional jurisdiction covering Krishna district
<b>Central Institute of Brackishwater Aquaculture</b>	R&D, farmer training, best practices in shrimp farming, disease management and sustainable aquaculture operations.	Outreach & field programs in Krishna–Guntur region
<b>National Fisheries Development Board</b>	Infrastructure development, funding, technology adoption and capacity building in fisheries and aquaculture.	Programs implemented across Andhra Pradesh
<b>Avanti Feeds</b>	Shrimp feed manufacturing, farm advisory services, production planning and farm management support.	Operations serving Krishna & Guntur districts
<b>Waterbase</b>	Aquafeed production, hatchery services, water quality management and technical farm consultancy.	Strong presence in coastal Andhra Pradesh

<b>CP Aquaculture</b>	Shrimp hatchery operations, broodstock management, farm operations and best-practice aquaculture systems.	Hatchery & farm networks in AP coastal belt
<b>Growel Feeds</b>	Fish & shrimp feed production, nutrition management, farm productivity enhancement.	Serving Vijayawada–Krishna aquaculture zone
<b>Krishna District Fisheries Cooperative Societies</b>	Cluster-level aquaculture operations, pond management, collective input procurement and marketing.	Krishna district (Vijayawada region)

**Table 15.9: Industries Identified for Academic Support**

<b>Sector</b>	<b>Industry Partners / Collaborators (Proposed)</b>
Semiconductor Technology	Polymatech, pSemi, Tessolve, AMD
Embedded AI	Wipro, ABB, AMD
Industrial Automation & Engineering	AVEVA India, Siemens Digital Industries, Bentley Systems, Tessolve, RobotSpace
Quantum Computing	Qulabs & Quinfosys Pvt Ltd
AI & Data Analytics	IBM, CTS, TCS Research, Infosys
Entrepreneurship & Start-ups Ecosystem	Startup Andhra Pradesh andhra Pradesh Innovation Society
Aquaculture Operations & Farm Management	Andhra Pradesh Fisheries Department, Avanti Feeds, Central Institute of Brackishwater Aquaculture

## 15.4 National Demand on the Proposed Distinct Programmes

The programmes proposed by R-DTBU are designed to **directly address national manpower shortages in strategic, emerging and socially critical sectors**, as identified by Government of India missions, policy documents and industry forecasts.

### Key National Demand Drivers

- Semiconductor & Electronics Sector**  
 India requires **over 2 lakh skilled professionals** in semiconductor devices, chip design, testing and manufacturing over the next decade, driven by the **India Semiconductor Mission**.

- **Quantum Technologies & Advanced Computing**  
The **National Quantum Mission** estimates demand for **50,000–75,000 quantum-trained professionals** by 2035 across computing, communication, security and materials.
- **AI, Data Analytics & Cyber Systems**  
India is projected to require **5–6 million AI and data professionals by 2030**, with critical shortages in applied AI, cybersecurity and forensic sciences.
- **Robotics, Automation & Smart Manufacturing**  
Industry 4.0/5.0 transition will require **1–1.2 million professionals** in robotics, automation and intelligent manufacturing systems.
- **Digital Commerce, FinTech & Entrepreneurship**  
Rapid expansion of digital payments, fintech, e-commerce and startups creates sustained demand for **commerce and management graduates with digital and analytical skills**.
- **Sustainability, Climate & Wellness Sectors**  
India's commitments to climate action, preventive healthcare and wellbeing demand **large-scale skilled manpower** in sustainability, climate systems, yoga and integrative health.

R-DTBU's programme portfolio is **explicitly aligned to these national workforce requirements**, reinforcing its distinct-category positioning.

## **15.5 Addressing the Strategic Needs of the Country through Graduate Attributes**

Graduates of R-DTBU will be developed with **future-ready attributes** that respond to India's **technological, economic, social and cultural priorities**.

### **Graduate Attributes**

- **Technical & Disciplinary Competence**  
Strong foundations in engineering, computing, sciences, management, design and architecture aligned with emerging technologies.
- **Interdisciplinary & Systems Thinking**  
Ability to integrate knowledge across disciplines to solve complex real-world problems.
- **Research & Innovation Capability**  
Skills in inquiry, experimentation, design thinking, data analysis and translational research.
- **Entrepreneurial & Leadership Mindset**  
Capacity to create enterprises, scale innovations and lead organisations ethically and sustainably.
- **Ethics, Sustainability & Social Responsibility**  
Commitment to environmental stewardship, inclusivity, wellbeing and national development.
- **Digital Fluency & Global Readiness**  
Proficiency in digital tools, AI systems and ability to work in global and multicultural contexts.

These attributes align with **Viksit Bharat @2047, Atmanirbhar Bharat, SDG-2030 and NEP-2020**.

## 15.6 Community-Centric Outreach

R-DTBU is committed to functioning as a **regional development catalyst** for the **Eluru–West Godavari region and neighbouring districts**.

### Key Community Outreach Initiatives

- **Skill development programmes** for rural youth and first-generation learners
- **Aquaculture, sustainability and agri-technology outreach** aligned with regional strengths
- **Digital literacy and cyber awareness programmes**
- **Mental health, wellness and yoga-based community initiatives**
- **Entrepreneurship development for MSMEs and self-help groups**
- **Student engagement through NSS, Unnat Bharat Abhiyan and village adoption**

Community engagement will be integrated into **curriculum, internships, projects and research**, ensuring mutual benefit.

## 15.7 Integration of Indian Knowledge Systems (IKS)

Indian Knowledge Systems (IKS) form a **defining pillar of R-DTBU's distinct identity**, integrated across teaching, research and community engagement.

### IKS Integration Framework

- **Dedicated academic programmes** such as Yoga & Life Sciences
- **University-wide foundation courses** on IKS, ethics and Indian civilisational thought
- **Interdisciplinary application of IKS** in wellness, psychology, sustainability and governance
- **Research initiatives** in IKS, mental wellbeing and traditional knowledge systems
- **Community engagement** through yoga, lifestyle sciences and holistic wellbeing practices

IKS integration ensures **value-based, culturally grounded and holistic education**, in line with NEP-2020.

## 15.8 Global Collaborations

R-DTBU proposes to establish **strategic international collaborations** to enhance academic quality, research impact and global exposure.

### Focus Areas for Global Collaboration

- Joint and dual degree pathways
- Collaborative research in **AI, quantum computing, sustainability, architecture and IKS**
- Faculty and student exchange programmes
- International internships and industry projects
- Global benchmarking and accreditation preparedness

### Target Collaboration Regions

- Universities and research institutions in **USA, Europe, UK, Japan, Singapore and Australia**
- Global technology and research organisations in **semiconductors, AI, sustainability and smart infrastructure**

Global engagement will strengthen **academic excellence, research visibility and international standing** of R-DTBU.

### 15.9 Distinct Category Justification as a University

The distinct category justification, as per clause 7 of UGC [Institutions Deemed to be Universities] Regulations, 2023 are given below.

**Table 15.10: Distinct Category Justification**

<b>UGC Distinct Category Clause / Expectation</b>	<b>UGC Requirement / Intent</b>	<b>Compliance by Ramachandra DTBU</b>
<b>1. Clearly Defined Distinct Vision</b>	Institution must demonstrate a vision that is clearly differentiated from conventional universities	R-DTBU is conceived as a <b>Distinct (D), Industry-Supported (I), Multidisciplinary (M) and Transdisciplinary (T)</b> university focusing on emerging technologies, applied sciences, management, liberal arts, Indian Knowledge Systems and architecture, with strong regional and national relevance
<b>2. Multidisciplinary Academic Structure</b>	Adoption of a multidisciplinary, NEP-2020 aligned academic framework	R-DTBU follows a <b>School-based multidisciplinary structure</b> enabling inter-school learning, major–minor pathways, electives across disciplines and flexible academic mobility
<b>3. Transdisciplinary Orientation</b>	Integration of knowledge across disciplines to solve real-world problems	Programmes are designed around <b>transdisciplinary domains</b> such as Semiconductor Technology, Quantum Computing, AI & Data Systems, Sustainable Technologies, Digital Commerce, IKS-based wellness and Architecture–Engineering integration
<b>4. Emerging &amp; Future-Oriented Programmes</b>	Offering of new-age, high-impact programmes not commonly available	R-DTBU proposes <b>distinct programmes</b> including Semiconductor Technology & Chip Design, Quantum Computing, Robotics & Intelligent Manufacturing, Foundation Models & LLMs, Sustainable Technology & Climate Systems, Digital Commerce & FinTech, Yoga & Life Sciences and Integrated Architecture & Engineering
<b>5. Alignment with</b>	Programmes must align with national	Academic focus aligns with <b>NEP-2020, India Semiconductor Mission, National Quantum Mission, Digital India, Startup India,</b>

<b>National Priorities</b>	missions and development goals	<b>Atmanirbhar Bharat and Viksit Bharat @2047</b>
<b>6. Research &amp; Innovation Orientation</b>	Strong emphasis on research, innovation and knowledge creation	R-DTBU integrates <b>research centres, interdisciplinary labs, industry-supported projects, incubation and start-up ecosystem</b> , ensuring teaching-research-innovation continuum
<b>7. Industry Integration</b>	Active industry participation in curriculum, training and outcomes	Several programmes are <b>industry-supported</b> , with planned support in curriculum design, internships, live projects, joint labs and placements, particularly in semiconductor, computing, automation, digital commerce and applied sciences
<b>8. Flexible Curriculum &amp; Academic Mobility</b>	Adoption of CBCS, ABC, multiple entry–exit and credit transfer	R-DTBU fully adopts <b>CBCS, ABC compliance, multiple entry–exit, inter-school credit transfer</b> , internships and project-based learning as per NEP-2020
<b>9. Integration of Liberal Arts &amp; IKS</b>	Inclusion of humanities, ethics and Indian Knowledge Systems	R-DTBU embeds <b>Liberal Arts and IKS</b> through dedicated programmes (Yoga & Life Sciences, Psychology & Mental Health, IKS-based courses) and university-wide foundation modules
<b>10. Regional Relevance &amp; Societal Impact</b>	Contribution to regional development and community needs	Located in the <b>Eluru–West Godavari region</b> , R-DTBU aligns programmes with regional needs such as aquaculture, sustainability, MSME support, digital skills, wellness and entrepreneurship
<b>11. Institutional Readiness &amp; Governance Maturity</b>	Demonstrated capacity to function as a university	R-DTBU will be built on the foundation of <b>Ramachandra College of Engineering (Autonomous)</b> , with established academic governance, quality assurance systems and regulatory compliance experience
<b>12. Phased &amp; Sustainable Growth Plan</b>	Programmes must be introduced in a planned and sustainable manner	The University proposes a <b>five-year phased rollout</b> of programmes, ensuring faculty availability, infrastructure readiness and academic quality
<b>13. Quality Assurance &amp; Outcome Orientation</b>	Commitment to quality benchmarks and continuous improvement	R-DTBU adopts <b>outcome-based education, internal quality assurance mechanisms, periodic reviews and benchmarking</b> aligned with NAAC/NIRF expectations
<b>14. National &amp; Global Outlook</b>	Potential for national leadership and global engagement	The distinct academic focus, research orientation and future-technology programmes provide strong scope for <b>national leadership and international collaborations</b>
<b>15. Justification for Distinct Category Status</b>	Institution must demonstrate clear differentiation	The <b>unique combination of emerging technologies, industry integration, IKS, multidisciplinary design and regional anchoring</b> clearly distinguishes R-DTBU from

		conventional universities, justifying Distinct Category status
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*“Ramachandra Deemed to be University commits to sustaining its distinct character through innovative academic programmes, research-driven teaching and solutions aligned with national and regional priorities.”*

## Chapter-16

**Five-Year Rolling Implementation Plan (2027–2032)**

*“The Five-Year Rolling Implementation Plan serves as a dynamic roadmap to operationalize the University’s vision through time-bound milestones, outcome-based planning and periodic review.”*

The Five-Year Rolling Implementation Plan (2027–2032) of **Ramachandra Deemed to be University (R-DTBU)** outlines a **year-wise, outcome-linked execution roadmap** for the systematic transformation of the existing Ramachandra College of Engineering into a **NEP-2020-aligned, multidisciplinary Deemed to be University under the Distinct Category (Existing Institution)**.

This rolling plan is **dynamic, review-oriented and data-anchored**, ensuring alignment with:

- Academic Plan (Chapter 5)
- Faculty Plan (Chapter 6)
- Admission Plan (Chapter 7)
- Research & Innovation Plan (Chapter 8)
- Infrastructure & ICT Plans (Chapters 9 & 10)
- Governance, Quality and Accreditation Plans (Chapters 11 & 13)

**Table 16.1: Baseline Parameters of existing facilities under Ramachandra College of Engineering**

Parameter	Baseline (2026)
Institutional Status	Existing Engineering Institution – Ramachandra College of Engineering (Autonomous)
Campus Land	23.725 Acre (contiguous, leased as declared – Annexure 21.8, 21.12 & 21.14)
Built-up Area	27,761.40 sq m (Annexure 21.8)
Existing Schools	Engineering & Technology (core) Computing and Management
Faculty Strength	236 (Annexure 21.5)
Student Strength	4285
Annual Operating Revenue	₹32 Cr (Annexure 21.9)
Annual Operating Expenditure	₹25 Cr (Annexure 21.9)
Publications	978 (SCI/Scopus/WoS/IEEE/UGC) cumulative (Annexure 21.7)
Patents (filed/granted)	211 cumulative (Annexure 21.7)

## 16.1 Year-wise Academic Rolling Plan (2027–2032)

The year-wise academic implementation and rolling plan is presented below.

**Table 16.2: Year-wise Academic Rolling Plan (2027–2032)**

Year	Key Academic Implementation Milestones
2027–28	<ul style="list-style-type: none"> <li>• Formal transition to Deemed to be University academic regulations</li> <li>• Launch of Schools: Engineering &amp; Technology, Computing, Applied Sciences, Management, Liberal Arts, IKS and Architecture</li> <li>• Implementation of NEP-aligned CBCS, OBE and ABC framework</li> </ul>
2028–29	<ul style="list-style-type: none"> <li>• Introduction of multidisciplinary minors and common university foundation courses</li> <li>• Launch of selected PG programmes aligned to industry demand</li> <li>• Full rollout of experiential learning and internship-embedded curricula</li> </ul>
2029–30	<ul style="list-style-type: none"> <li>• Introduction of integrated and interdisciplinary programmes</li> <li>• Academic flexibility through multiple entry–exit pathways operationalised</li> <li>• Expansion of digital, blended and platform-based learning</li> </ul>
2030–31	<ul style="list-style-type: none"> <li>• Strengthening of research-integrated UG and PG curricula</li> <li>• Launch of doctoral programmes across priority domains</li> <li>• International credit transfer and joint academic initiatives</li> </ul>
2031–32	<ul style="list-style-type: none"> <li>• Curriculum benchmarking with national and global universities</li> <li>• Consolidation of outcome-based academic performance metrics</li> <li>• Academic review and revision cycle for next rolling plan</li> </ul>

**Table 16.3: Academic Key Performance Indicators (KPIs - Cumulative)**

KPI	2027–28	2028–29	2029–30	2030–31	2031–32
Number of Schools	7	7	7	7	7
UG Programmes	13	17	22	26	27
PG Programmes	6	6	8	8	8
PhD Programmes	5	7	9	11	13
Total Student Strength	4500	5000	5800	6500	7500
Students with ABC Credits (%)	60%	70%	80%	90%	100%
Multidisciplinary Enrolment (%)	20%	35%	50%	65%	75%

## 16.2 Year-wise Faculty Recruitment Plan

The year-wise faculty recruitment implementation and rolling plan is presented below.

**Table 16.6: Faculty Strength & Research Capacity Growth**

Year	Faculty Strength	% PhD Faculty
2027–28	275	40%
2028–29	303	45%
2029–30	361	50%
2030–31	436	55%
2031–32	502	60%

Faculty Strength includes Professors of Practice, Research Professors and Industry-embedded adjunct faculty.

**Table 16.7: Year-wise Faculty Recruitment Plan**

Year	Faculty Plan Focus
2027–28	<ul style="list-style-type: none"> <li>• Re-designation and onboarding of faculty under university cadre</li> <li>• Recruitment to meet UGC norms for new Schools and programmes</li> <li>• Orientation on NEP-2020, OBE and research expectations</li> </ul>
2028–29	<ul style="list-style-type: none"> <li>• Recruitment of niche faculty in emerging technologies and IKS</li> <li>• Launch of structured FDPs and pedagogical training</li> <li>• Faculty participation in funded research and consultancy</li> </ul>
2029–30	<ul style="list-style-type: none"> <li>• Expansion of research-oriented faculty strength</li> <li>• Faculty leadership development and academic governance training</li> </ul>
2030–31	<ul style="list-style-type: none"> <li>• Appointment of Research Professors and Professors of Practice</li> <li>• International faculty collaboration and visiting professorships</li> </ul>
2031–32	<ul style="list-style-type: none"> <li>• Faculty performance consolidation aligned to NAAC/NIRF metrics</li> <li>• Succession planning and next-cycle recruitment roadmap</li> </ul>

**Table 16.8: Faculty & Human Resource KPIs (Cumulative)**

KPI	2027–28	2028–29	2029–30	2030–31	2031–32
Total Faculty Strength	275	303	361	436	502
Professors	28	28	32	39	45
Associate Professors	55	56	64	78	90
Assistant Professors	165	174	193	232	267

Faculty with PhD (%)	40%	45%	50%	55%	60%
Professors of Practice	27 (10%)	45 (15%)	72 (20%)	87 (20%)	200 (20%)
Faculty Trained in NEP/OBE (%)	60%	80%	95%	100%	100%

### 16.3 Year-wise Student Admission Rolling Implementation Plan

The year-wise student admission implementation and rolling plan is presented below.

**Table 16.4: Year-wise On-Campus Students Projections**

Academic Year	UG Students	PG Students	PhD Scholars	Total Strength
2027–28	4000	460	40	4500
2028–29	4400	540	60	5000
2029–30	5000	710	90	5800
2030–31	5600	780	120	6500
2031–32	6500	850	150	7500

**Table 16.5: Year-wise Student Admission Rolling Plan**

Year	Admission Targets & Initiatives
2027–28	<ul style="list-style-type: none"> <li>• Admission under Deemed University status for existing and new programmes</li> <li>• Regional outreach and branding initiatives</li> </ul>
2028–29	<ul style="list-style-type: none"> <li>• Moderate intake expansion with multidisciplinary enrolments</li> <li>• Enhanced scholarship and inclusion initiatives</li> </ul>
2029–30	<ul style="list-style-type: none"> <li>• Increased PG and research enrolments</li> <li>• Student diversity through inter-state admissions</li> </ul>
2030–31	<ul style="list-style-type: none"> <li>• Introduction of international and NRI admissions</li> <li>• Strengthening student support and mentoring systems</li> </ul>
2031–32	<ul style="list-style-type: none"> <li>• Stabilised student strength aligned to infrastructure capacity</li> <li>• Admission review and recalibration</li> </ul>

### 16.4 Year-wise Research and Innovation Rolling Implementation Plan

The year-wise research and innovation implementation and rolling plan is presented below.

**Table 16.9: Year-wise Research and Innovation Rolling Implementation Plan**

Year	Research & Innovation Focus
2027–28	<ul style="list-style-type: none"> <li>• Establishment of University Research Council and Ethics Committees</li> <li>• Identification of thrust areas and Centres of Excellence</li> </ul>

2028–29	<ul style="list-style-type: none"> <li>• Launch of Ramachandra University Research Fellowships (URF)</li> <li>• Increased publications, patents and seed-funded projects</li> </ul>
2029–30	<ul style="list-style-type: none"> <li>• Industry-linked research, consultancy and incubation activities</li> <li>• External funded projects (DST, AICTE, ANRF, etc.)</li> </ul>
2030–31	<ul style="list-style-type: none"> <li>• Technology transfer, start-ups and IPR commercialisation</li> <li>• Research collaboration with national institutions</li> </ul>
2031–32	<ul style="list-style-type: none"> <li>• Research output consolidation for NAAC and NIRF</li> <li>• Strategic planning for advanced research clusters</li> </ul>

**Table 16.10: Research & Innovation KPIs (Cumulative)**

KPI	2027–28	2028–29	2029–30	2030–31	2031–32
Annual SCI / Scopus / WoS Publications	150	190	240	300	400
Cumulative Publications	1128	1318	1558	1858	2258
Patents Filed (Annual)	40	50	60	75	100
Patents Granted (Cumulative)	251	301	361	436	536
Books / Chapters (Cumulative)	60	80	110	150	200

## 16.5 Year-wise Infrastructure & ICT Development Plan

The year-wise infrastructure and ICT development implementation and rolling plan is presented below.

**Table 16.11: Land & Infrastructure Utilisation Plan (Year-wise)**

Year	Land Utilisation	Built-up Area (Cumulative)
2027–28	Re-designation of full 23.725 Acre as University campus	40,000 sq m
2028–29	Academic & Research block expansion	45,000 sq m
2029–30	CoE labs, incubation & library extension	52,000 sq m
2030–31	Hostels, student amenities, innovation spaces	60,000 sq m
2031–32	Research parks, green campus upgrades	65,000+ sq m

**Table 16.12: Year-wise Infrastructure & ICT Development Plan**

Year	Infrastructure & ICT Actions
2027–28	<ul style="list-style-type: none"> <li>• Rebranding and reorganisation of existing infrastructure as University assets</li> <li>• ICT upgradation and ERP-based governance</li> </ul>
2028–29	<ul style="list-style-type: none"> <li>• Expansion of laboratories, research spaces and smart classrooms</li> </ul>
2029–30	<ul style="list-style-type: none"> <li>• Development of Centres of Excellence and incubation facilities</li> </ul>
2030–31	<ul style="list-style-type: none"> <li>• Hostels, student amenities and green campus enhancements</li> </ul>
2031–32	<ul style="list-style-type: none"> <li>• Infrastructure audit and readiness for next expansion cycle</li> </ul>

**Table 16.13: Infrastructure & ICT KPIs (Cumulative)**

KPI	2027–28	2028–29	2029–30	2030–31	2031–32
Campus Land (Acres)	23.725	23.725	23.725	23.725	23.725
Built-up Area (sqm)	40,000	45,000	52,000	60,000	65,000+
Smart Classrooms	50	60	70	75	80
Advanced Research Labs	15	22	30	38	45
Centres of Excellence	2	3	4	5	6
Campus Digitisation (%)	60%	75%	90%	100%	100%

## 16.6 Year-wise Financial Implementation Plan

The year-wise financial implementation and rolling plan is presented below.

**Table 16.14: Year-wise Financial Implementation Plan**

Year	Financial Focus
2027–28	<ul style="list-style-type: none"> <li>• Initial corpus deployment and transition expenditure</li> </ul>
2028–29	<ul style="list-style-type: none"> <li>• Balanced CAPEX–OPEX with growing academic revenue</li> </ul>
2029–30	<ul style="list-style-type: none"> <li>• Increased internal revenue from PG, research and consultancy</li> </ul>
2030–31	<ul style="list-style-type: none"> <li>• Financial stabilisation and surplus generation</li> </ul>
2031–32	<ul style="list-style-type: none"> <li>• Strengthened corpus and long-term financial sustainability</li> </ul>

**Year-wise Financials**

Year	Revenue (₹ Cr)	Expenditure (₹ Cr)	Surplus (₹ Cr)
2027–28	37	32	5
2028–29	39	33	6
2029–30	41	34	7
2030–31	44	37	7
2031–32	48	40	8

**16.7 Year-wise Quality Assurance and Accreditation Plan**

The year-wise quality assurance and accreditation rolling plan is presented below.

**Table 16.15: Year-wise Quality Assurance and Accreditation Plan**

Year	Quality & Accreditation Milestones
2027–28	• Establishment of University-level IQAC and SQAC
2028–29	• Internal audits, documentation and process digitisation
2029–30	• NAAC SSR preparation and benchmarking
2030–31	• NAAC First Cycle submission and NIRF participation
2031–32	• Quality consolidation and global benchmarking

**Table 16.16: Quality, NAAC & Ranking Milestones**

Year	Key Outcome
2027–28	University IQAC & SQAC operational
2028–29	Full digitisation & academic audits
2029–30	NAAC SSR preparation
2030–31	NAAC First Cycle (target A+/A++), NIRF participation
2031–32	Ranking consolidation & global benchmarking

**Table 16.17: Quality Assurance, Accreditation & Ranking KPIs**

KPI	2027–28	2028–29	2029–30	2030–31	2031–32
University IQAC	Established	Strengthened	SSR Ready	NAAC Filed	Accredited
NAAC Status	—	—	Preparation	1st Cycle	Post-NAAC
NIRF Participation	—	—	Preparation	Participated	Consolidated
NBA (Eligible Programmes)	—	—	Preparation	Applied	Accredited
Global MoUs (Cumulative)	5	10	15	20	25

### 16.8 Monitoring, Review and Mid-Course Correction

- Annual review by Executive Council and IQAC
- KPI-based monitoring across academics, research, finance and governance
- Mid-course corrections based on regulatory updates, industry trends and stakeholder feedback
- Rolling revision for the subsequent five-year plan (2032–2037)

The Five-Year Rolling Implementation Plan (2027–2032) ensures that **Ramachandra Deemed to be University** evolves in a **measured, compliant and impact-oriented manner**, transforming an existing institution into a **nationally relevant, multidisciplinary university** aligned with **NEP-2020, UGC [Institutions Deemed to be Universities] Regulations, 2023 and Viksit Bharat 2047**.

### 16.9 Consolidated Five-Year Outcome Snapshot (2032)

The five-year consolidated rolling implementation plan outcomes is presented below.

**Table 16.18: Consolidated Five-Year Outcomes**

Indicator	Projected Status
Campus	23.725 Acre, ~65,000 sq m
Students	7500
Faculty	502
Publications	2258 cumulative
Patents	536 cumulative
Research Funding	₹2+ Cr/year
Annual Revenue	₹8+ Cr

NAAC	First Cycle completed
NIRF	Active participation

This **financially realistic, academically credible and regulator-safe rolling plan** positions **Ramachandra Deemed to be University** as:

- A **stable conversion DTBU**, not a speculative greenfield
- A **research-progressive regional university**
- Fully aligned with **NEP-2020, UGC-2023, NAAC RAF & NIRF metrics**



*“Ramachandra Deemed to be University commits to implementing this five-year plan with clearly defined milestones, transparent governance and continuous monitoring to ensure timely and quality-driven outcomes.”*

## Chapter-17

### SWOC ANALYSIS



*“A realistic assessment of institutional strengths, limitations, opportunities and contextual challenges is essential for strategic planning, sustainable growth and informed decision-making in higher education.”*

The SWOC analysis is presented by considering the **regional context of Eluru** andhra Pradesh and the **current academic, infrastructural and institutional status of Ramachandra College of Engineering**, which forms the core constituent of the proposed University.

#### 17.1 Strengths

- Established academic foundation through **Ramachandra College of Engineering**, with years of experience in engineering education.
- Autonomous and NAAC A+ status enabling academic flexibility, curriculum innovation and outcome-based education practices.
- Strategic location in **Eluru**, serving as an educational hub for Eluru, West Godavari and neighboring districts.
- Availability of developed campus infrastructure, laboratories, libraries, hostels and student support facilities.
- Committed management with a clear vision aligned to **NEP 2020**, multidisciplinary education and regional development.
- Strong regional demand for affordable quality higher education, particularly in engineering, computing, management and applied sciences.
- Experienced faculty base familiar with regulatory frameworks such as UGC, AICTE, NAAC and NBA.

#### 17.2 Weaknesses

- Limited diversification of academic programmes beyond conventional engineering disciplines at present.
- Research output, patents and externally funded projects are at a developing stage.
- Restricted international exposure in terms of foreign collaborations, student mobility and global rankings.
- Dependence on a single constituent institution during the initial phase of Deemed-to-be University transition.
- Need for enhanced digital infrastructure and advanced research laboratories to match global benchmarks.

#### 17.3 Opportunities

- Transformation into a Deemed to be University enables rapid expansion into **multidisciplinary and interdisciplinary programmes** including management, liberal arts, applied sciences and emerging technologies.

- Strong scope to address **regional manpower needs** in Semiconductor technology, AI and Robotics, Quantum technology, Startups, Aquaculture, etc. relevant to Andhra Pradesh's new initiatives aligned with India's Missions in Eluru and Vijayawada region.
- Potential to establish **centres of excellence** in areas such as AI, data sciences, robotics, automation, aqua-tech and Indian Knowledge Systems.
- Opportunity to leverage government initiatives such as **Skill India, Digital India, Startup India and Viksit Bharat 2047**.
- Ability to attract research funding, industry partnerships and international collaborations post Deemed-to-be University status.

## 17.4 Challenges

- Competition from established private universities and deemed universities in Andhra Pradesh and neighboring states.
- Ensuring sustained financial investment for corpus fund augmentation, advanced infrastructure and faculty recruitment.
- Transition management from an affiliated/autonomous college model to a full-fledged Deemed to be University governance structure.
- Retaining high-quality faculty and researchers in a semi-urban regional setting.
- Maintaining regulatory compliance, quality assurance and accreditation benchmarks during rapid institutional expansion.



Figure 17.1: SWOC of the proposed Ramachandra Deemed to be University



*“Ramachandra Deemed to be University commits to consolidating its inherent strengths, proactively addressing identified weaknesses, strategically leveraging emerging opportunities and effectively managing challenges, to evolve as a multidisciplinary, research-driven and socially responsive institution. Guided by NEP-2020, regional aspirations of the Eluru–West Godavari region and national development priorities, R-DTBU shall ensure sustained academic excellence, inclusive growth, robust governance and global relevance in higher education.”*

## Chapter-18

# FIFTEEN-YEAR DETAILED STRATEGIC VISION PLAN FOR RAMACHANDRA DTBU



*“A university’s true legacy is not measured by years of existence, but by generations it empowers and futures it transforms.”*

The Fifteen-Year Detailed Strategic Vision Plan of Ramachandra Deemed-to-be University (DTBU) articulates a long-term, phased and outcome-oriented roadmap for institutional growth, academic excellence, research leadership and societal impact. Building upon the academic legacy, infrastructure base, governance experience and community engagement of Ramachandra College of Engineering, the proposed University envisions a structured transformation into a multidisciplinary, research-driven and socially responsive institution aligned with national priorities and global benchmarks.

This strategic vision is conceived in alignment with the National Education Policy (NEP) 2020, Sustainable Development Goals (SDGs), Atmanirbhar Bharat and the long-term national aspiration of Viksit Bharat @2047. The plan emphasizes continuity, scalability, quality assurance and institutional sustainability over a fifteen-year horizon.

### 18.1 Strategic Vision Statement

Ramachandra DTBU envisions evolving into a nationally respected and globally connected multidisciplinary university, known for academic rigor, research excellence, innovation-led growth, inclusive education and meaningful societal contribution.

### 18.2 Guiding Principles of the Fifteen-Year Vision

The strategic plan is guided by the following core principles:

- Academic autonomy with accountability
- Outcome-based and learner-centric education
- Research relevance addressing regional, national and global challenges
- Strong industry, community and international engagement
- Ethical governance, transparency and quality assurance
- Sustainability, inclusivity and social responsibility

### 18.3 Strategic Pillars

The fifteen-year vision of Ramachandra DTBU rests on the following strategic pillars:

#### 1. Academic Excellence and Multidisciplinary Expansion

- Introduction of flexible, NEP-aligned undergraduate, postgraduate, integrated and research programmes
- Strengthening of Schools of Engineering & Technology, Computing, Applied Sciences, Management, Liberal Arts, Indian Knowledge Systems and Architecture
- Promotion of interdisciplinary learning pathways and multiple entry–exit options through the Academic Bank of Credits (ABC)

## **2. Research, Innovation and Knowledge Creation**

- Establishment of Centres of Excellence and thematic research clusters
- Promotion of funded research, publications, patents and technology transfer
- Creation of a vibrant innovation, incubation and start-up ecosystem

## **3. Faculty Excellence and Leadership Development**

- Phased recruitment of qualified faculty and research professionals
- Continuous professional development through faculty development programmes
- Leadership grooming for academic administrators and research leaders

## **4. Student Development and Employability**

- Integration of industry internships, skill development and experiential learning
- Entrepreneurship development and career readiness initiatives
- Holistic student support systems including mentoring, scholarships and counselling

## **5. Governance, Quality Assurance and Digital Transformation**

- Robust statutory and non-statutory governance structures
- University-level IQAC and continuous quality monitoring
- Adoption of digital governance through ERP, LMS and e-governance platforms

## **6. Social Commitment, Sustainability and Outreach**

- Inclusive education for rural, semi-urban and first-generation learners
- Green campus initiatives and environmental sustainability
- Community engagement, extension activities and regional development programmes

## **18.4 Phased Implementation Plan**

### **Phase I: Foundation and Consolidation (Years 1–5)**

- Operationalization of Deemed-to-be University governance and statutory bodies
- Strengthening of existing academic programmes and introduction of select multidisciplinary offerings
- Establishment of University-level policies and quality assurance systems
- Initiation of Centres of Excellence and incubation activities
- Participation in national rankings and benchmarking exercises

**Phase II: Expansion and Research Intensification (Years 6–10)**

- Expansion of academic programmes across Schools
- Scaling up of research funding, doctoral programmes and research outputs
- Strengthening of national and international collaborations
- Enhanced industry integration and employability outcomes
- Progression towards higher levels of accreditation and ranking performance

**Phase III: Global Positioning and Institutional Maturity (Years 11–15)**

- Emergence as a research-intensive and innovation-led university
- Global academic collaborations and international student engagement
- Leadership in select niche academic and research domains
- Strong societal impact through policy engagement, community development and knowledge dissemination
- Institutional sustainability and legacy-building

**18.5 Fifteen-Year Milestone Framework**

The phase-wise fifteen-year milestone frame comprising academics, research and innovation, infrastructure, ranking and accreditation are presented below.

**Table 18.1: Fifteen-Year Milestone Framework**

<b>Phase &amp; Years</b>	<b>Academics</b>	<b>Research &amp; Innovation</b>	<b>Infrastructure</b>	<b>Rankings &amp; Accreditations</b>
Phase I (Years 1–5) Foundation & Consolidation	<ul style="list-style-type: none"> <li>• Strengthening existing UG &amp; PG programmes</li> <li>• Introduction of NEP-aligned multidisciplinary programmes</li> <li>• Implementation of ABC, OBE and flexible curricula</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of Centres of Excellence</li> <li>• Launch of Ph.D. programmes</li> <li>• Seed funding for faculty research</li> <li>• Initial patents &amp; publications</li> </ul>	<ul style="list-style-type: none"> <li>• Augmentation of existing academic blocks</li> <li>• Smart classrooms &amp; digital labs</li> <li>• Central library expansion</li> <li>• ERP &amp; LMS deployment</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in NIRF (overall &amp; engineering)</li> <li>• NAAC preparedness &amp; IQAC strengthening</li> <li>• NBA accreditation for 90% eligible programmes</li> </ul>
Phase II (Years 6–10) Expansion & Research Intensification	<ul style="list-style-type: none"> <li>• Expansion across all Schools</li> <li>• Launch of integrated &amp; interdisciplinary programmes</li> <li>• International credit transfer &amp; twinning initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Increased funded research (ANRF, DST, DBT, AICTE, ICSSR, industry)</li> <li>• Growth in Q1/Scopus/WoS publications</li> <li>• Operational incubation &amp; start-up ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>• New academic &amp; research blocks</li> <li>• Dedicated research labs &amp; incubation centre</li> <li>• Student hostels &amp; faculty housing</li> <li>• Green campus initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Improved NIRF band positioning</li> <li>• NAAC Cycle-I Accreditation</li> <li>• Expansion of NBA-accredited programmes</li> </ul>
Phase III (Years 11–15) Global Positioning & Maturity	<ul style="list-style-type: none"> <li>• 60+ UG/PG/Integrated programmes across Schools</li> <li>• 10,000+ student</li> </ul>	<ul style="list-style-type: none"> <li>• 250+ Scopus/WoS publications per year</li> <li>• 50+ cumulative patents</li> </ul>	<ul style="list-style-type: none"> <li>• Fully developed university campus with 1.5–2.0 million sq.ft built-up area</li> <li>• Dedicated</li> </ul>	<ul style="list-style-type: none"> <li>• Consistent NIRF Top 200 (Engineering)</li> <li>• NAAC Cycle-II with A++ / high</li> </ul>

	<p>strength</p> <ul style="list-style-type: none"> <li>• 5–10% international student enrolment</li> </ul>	<ul style="list-style-type: none"> <li>• ₹50–75 Cr cumulative external research funding</li> <li>• 10+ technologies transferred/commercialized</li> </ul>	<p>innovation park &amp; knowledge hub</p> <ul style="list-style-type: none"> <li>• Net-zero / carbon-conscious campus</li> </ul>	<p>level in MBGL</p> <ul style="list-style-type: none"> <li>• Entry into QS/THE global rankings</li> </ul>
<p>Viksit Bharat @2047 Alignment</p>	<ul style="list-style-type: none"> <li>• Human capital development for knowledge economy</li> <li>• Multidisciplinary, skill-based &amp; innovation-driven graduates</li> </ul>	<ul style="list-style-type: none"> <li>• Indigenous research &amp; Atmanirbhar technologies</li> <li>• Industry-relevant innovation &amp; policy research</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable, green &amp; digitally enabled campus ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>• Global visibility of Indian higher education</li> <li>• Contribution to national benchmarks &amp; global reputation</li> </ul>

Table 18.2: Roadmap – Phase-wise

Phase	Timeline	Key Milestones & Deliverables	Expected Outcomes
<b>Phase I – Foundation &amp; Establishment</b>	<b>2027 – 2032 (Years 1–5)</b>	<ul style="list-style-type: none"> <li>• Establish core academic schools, administrative framework and digital governance.</li> <li>• Launch 19+ new UG / PG / Integrated programmes and 6 Centres of Excellences.</li> <li>• Achieve financial self-sufficiency and NAAC readiness.</li> <li>• Develop smart campus infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• Academic credibility established.</li> <li>• Initial NIRF Top-300 ranking.</li> <li>• Community outreach in 50 villages.</li> </ul>
<b>Phase II – Expansion &amp; Excellence</b>	<b>2032 – 2037 (Years 6–10)</b>	<ul style="list-style-type: none"> <li>• Add new schools (Design &amp; Innovation, Sustainable Engineering).</li> <li>• Obtain NAAC ‘A++’ or equivalent, NBA Tier-I accreditations for 100% eligible programmes.</li> <li>• Establish further 6 CoEs and Incubation Park.</li> <li>• Initiate dual degree programmes.</li> <li>• Launch post-doctoral fellowships.</li> </ul>	<ul style="list-style-type: none"> <li>• NIRF Top-250.</li> <li>• 100+ funded projects and start-ups.</li> <li>• Strong industry connects across Andhra Pradesh and India.</li> </ul>
<b>Phase III – Global Impact &amp; Sustainability</b>	<b>2037 – 2042 (Years 11–15)</b>	<ul style="list-style-type: none"> <li>• Transition into global research university.</li> <li>• Join QS / THE Impact Rankings.</li> <li>• Offer 10+ joint degree programmes with global partners.</li> <li>• Establish Rural Sustainability Cluster.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognized as Global Knowledge Hub.</li> <li>• QS/THE Top-800 ranking.</li> <li>• Model University for Viksit Bharat 2047.</li> </ul>

		• Attain carbon-neutral campus status.	
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Table 18.3: Roadmap – Parameter-wise

<b>Parameter</b>	<b>Current Status</b>	<b>5 Year (2026-2031)</b>	<b>10 Year (2026-2036)</b>	<b>15 Year (2026-2041)</b>
<b>Number of UG/PG Programmes</b>	16	35+	50+	60+
<b>Campus Strength (Students)</b>	4285	6500+	8000+	10000+
<b>Number of Faculty on Campus</b>	236	430+	530+	660+
<b>Quality Publications (Scopus/WoS)</b>	978	1500+	2000+	2800+
<b>Patents (File/Publish/Grant)</b>	211	500+	800+	1000+
<b>Transfer of Technology</b>	0	5+	15+	30+
<b>Startups</b>	0	10+	25+	40+
<b>Research Funding (Govt &amp; Industry)</b>	3.55 Cr	6+ Cr	10+ Cr	20+ Cr
<b>Centre of Excellence</b>	0	6	12	15
<b>NAAC Accreditation</b>	A+ status and score of 3.33/4 in the Cycle-2	A++ / Level-3 in MBGL	A++ / Level-4 in MBGL	A++ / Level-4/5 in MBGL
<b>NBA Accreditation</b>	5	90% of eligible programmes	100% of eligible programmes	100% eligible programmes
<b>NIRF – Overall</b>	Participation	Top 300	Top 250	Top 200
<b>NIRF – Engineering</b>	Participation	Top 300	Top 250	Top 200
<b>NIRF – Innovation</b>	Participation	Participation	Top 300	Top 250
<b>NIRF – Sustainability</b>	-	Participation	Top 300	Top 250
<b>NIRF – Management</b>	-	Participation	Top 300	Top 250
<b>NIRF – Research</b>	-	Participation	-	Top 300
<b>ABET (Engineering)</b>	-	-	2 Programmes	5 Programmes
<b>AACSB / EQUIS / AMBA (Management)</b>	-	-	Accreditation	Accreditation
<b>QS I-Gauge</b>	-	Gold Rating	Platinum Rating	Diamond Rating
<b>QS / THE / Shanghai Ranking</b>	-	Participation	Top 1000 in World	Top 800 in World
<b>THE IMPACT Ranking</b>	-	Participation	Top 1000 in World	Top 800 in World

## Vision for 2042 – Ramachandra Deemed to be University



*“By 2042, Ramachandra Deemed to be University aspires to emerge as a globally respected, research-intensive and socially responsible multidisciplinary university, rooted in Indian knowledge traditions and driven by innovation, sustainability and inclusive excellence—contributing meaningfully to regional development, national priorities and the global knowledge economy.”*

At the end of the fifteen-year period, Ramachandra DTBU aims to:

- Be recognized as a quality-driven multidisciplinary university
- Demonstrate strong research output and innovation impact
- Produce socially responsible, skilled and employable graduates
- Contribute meaningfully to regional development and national priorities
- Sustain a culture of excellence, ethics and continuous improvement



Figure 18.1: Ramachandra DTBU in alignment with National and Global Visions



*“Ramachandra DTBU commits to evolving as a socially responsive, research-intensive and innovation-led university over the next fifteen years.”*

## Chapter-19

### CORPUS FUND



*“A strong corpus fund is the financial backbone that safeguards academic autonomy, sustainability and institutional excellence across generations.”*

As per the UGC (Institutions Deemed to be Universities) Regulations, 2023, a minimum **Corpus Fund of sum of ₹ 25 crore** is required for a Deemed to be University under the Distinct Category.

Accordingly, **Ramachandra Educational Foundation**, the Sponsoring Body, shall create by **receiving it from its parent trust, Ganta Sriram Educational Society** and maintain the requisite corpus fund in the name of **Ramachandra Deemed to be University**.

- The corpus fund shall be placed as a fixed deposit in a nationalised bank, operated by **Ramachandra Educational Foundation** and shall be subjected to annual certification by a Chartered Accountant and the Bank Manager.
- The corpus principal shall not be applied towards recurring expenditure; it shall function exclusively as long-term financial security to address unforeseen contingencies and to ensure the financial sustainability of the Deemed-to-be University.
- The interest accrued in each financial year shall be utilised solely for institutional development activities and shall be appropriately disclosed in the audited financial statement.

Particulars	Amount (₹ in crore)	Remarks
Statutory Corpus Fund	25.00	To be deposited on issue of Letter of Intent or Sanction Order

The relevant resolutions and undertakings from **Ganta Sriram Educational Society** and **Ramachandra Educational Foundation** are provided in the **Annexure 21.13**.



*“Ramachandra Educational Foundation is committed to establishing and maintaining the Corpus Fund in accordance with the UGC (Institutions Deemed to be Universities) Regulations, 2023, to ensure long-term financial stability, sustainability and uninterrupted academic operations of the University.”*

## Chapter-20

**NO OBJECTION CERTIFICATE FROM THE AFFILIATED UNIVERSITY**

*“The No Objection Certificate ensures continuity, legitimacy and orderly academic progression during institutional transformation.”*

The proposed **Ramachandra Deemed to be University** presently comprises a single key constituent institution, **Ramachandra College of Engineering (Autonomous)**, which is affiliated to **Jawaharlal Nehru Technological University (JNTUK), Kakinada**.

In compliance with the **UGC (Institutions Deemed to be Universities) Regulations, 2023**, the affiliating university has been formally approached for the issuance of a **No Objection Certificate (NOC)** to facilitate the transfer of affiliation upon the grant of **Deemed-to-be University** status.

**Procedure Undertaken:**

- The Sponsoring Trust has submitted formal NOC request to the Registrar of JNTUK, Kakinada.
- The University has acknowledged receipt and initiated internal review through its Syndicate / Academic Council as per standard procedure.
- Upon receipt of the UGC Expert Committee visit recommendation, the NOC will be furnished as part of the final compliance documentation.

**Ramachandra Educational Foundation assures full cooperation with JNTUK, Kakinada in ensuring smooth transition of existing students, examination equivalence and record maintenance during the changeover phase.**

The relevant request letter and acknowledgement are provided in the **Annexure 21.15**.



*“Ramachandra Educational Foundation is committed to obtaining the required No Objection Certificate (NOC) from the affiliating university in compliance with the UGC (Institutions Deemed to be Universities) Regulations, 2023, to facilitate the smooth transfer of affiliation upon the grant of Deemed-to-be University status.”*

## Chapter-21 **ANNEXURES**

### **21.1 Existing Institution details**

**Link - [View](#)**

### **21.2 Curriculum – Existing Programmes**

**Link - [View](#)**

### **21.3 Curriculum – Proposed Programmes**

**Link - [View](#)**

### **21.4 Syllabus – Proposed Programmes**

**Link - [View](#)**

### **21.5 Faculty List**

**Link - [View](#)**

### **21.6 MoUs and Collaborations with sample Signed MoUs**

**Link - [View](#)**

### **21.7 Publications, Patents and Grants Received**

**Link - [View](#)**

### **21.8 Site Plan, Master Plan, Building Plan and Building Approvals**

**Link - [View](#)**

### **21.9 Financial Statements and PAN of the Sponsoring Body**

**Link - [View](#)**

### **21.10 Approvals – UGC, AICTE, University, NAAC, NBA, Others**

**Link - [View](#)**

### **21.11 Registration of the Sponsoring Bodies and Bye Laws/MoAs**

**Link - [View](#)**

**21.12 Land Ownership Documents**

**Link - [View](#)**

**21.13 Resolutions of the Sponsoring Body**

**Link - [View](#)**

**21.14 Lease Deed**

**Link - [View](#)**

**21.15 NOC Request Letter submitted to the affiliated University**

**Link - [View](#)**



ज्ञानमेव सर्वेषु धनेषु श्रेष्ठतमम्

జ్ఞానమే సమస్త సంపదలలో శ్రేష్ఠమైనది

*Knowledge is the greatest of all wealth*

RK



# RAMACHANDRA

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