RAMACHANDRA COLLEGE OF ENGINEERING AUTONOMOUS

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A REPORT ON HANDS-ON EXPERIENCE ON "AI IN ELECTRONICS"

Organized by Department of Electronics & Communication Engineering

Association withAPSSDC

Name of the Resource Person(s) : **1. Mr. Venkatesh Lakkakula**

2. Mr. Vajrala Narendra Reddy

Designation :**1. Learning Innovation Program Specialist at L4G Solutions Pvt.Ltd**

2. Trainer and Developer at L4G Solutions Pvt. Ltd

Venue : **VI- 203**

Date(s) :**From 2.03.2026 to 7.03.2026**

Time : **09.00 AM to 4.50 PM**

Name of the Coordinator(s) : **1. Ms. G. Bindu Pavani, Assistant Professor (ECE)**

2. Mrs. T. Vinodita, Assistant Professor (ECE)

No. of participants : **50**

Conducted for :

Branch	Year	Semester	No of Students Attended
ECE	I	II	50
Total No of Students Attended			50

Profile of the Resource Person

Mr. Venkatesh Lakkakula is a Learning Innovation Program Specialist at **L4G Solutions Private Limited**, working in association with the **Andhra Pradesh State Skill Development Corporation**. He is actively involved in designing and implementing innovative learning programs aimed at enhancing students' technical and professional skills.

Mr. Vajrala Narendra Reddy is a Trainer and Developer at **L4G Solutions Private Limited**, also working in association with the **Andhra Pradesh State Skill Development Corporation**. He contributes to training and development initiatives, focusing on delivering practical knowledge and skill-based learning experiences.

The **Andhra Pradesh State Skill Development Corporation** is a Government of Andhra Pradesh organization focused on skill development and employment generation. It offers industry-oriented training programs in collaboration with educational institutions and companies. APSSDC helps students gain practical skills and become job-ready.

ReportinbriefbyOrganizer/ Coordinator/Convener

This report provides a comprehensive overview of the 5-day hands-on workshop on *"AI in Electronics"* conducted from 02-03-2026 to 07-03-2026 at the Department of ECE, **Ramachandra College of Engineering (Autonomous)**. The primary objective of the workshop was to provide participants with a strong foundation in Artificial Intelligence (AI) concepts while equipping them with practical skills to implement AI-based solutions using various hardware platforms and software tools for high-demand real-world applications.

The workshop focused on bridging the gap between Generative Artificial Intelligence (GenAI) technologies and their practical applications in Electronics and Communication Engineering (ECE). Participants explored modern AI concepts, including foundation models, multimodal AI systems, and signal-processing models. The program emphasized hands-on learning using industry-relevant tools such as **Hugging Face**, **Google Gemini**, and **Gemma** to solve real-world engineering problems.

The workshop was designed with a progressive learning approach. Initially, participants developed a strong understanding of AI fundamentals, including Artificial Intelligence (AI), Machine Learning (ML), Deep Learning (DL), Large Language Models (LLMs), prompt engineering techniques, and ethical AI practices. This foundation enabled them to understand how modern AI systems process data and generate intelligent outputs.

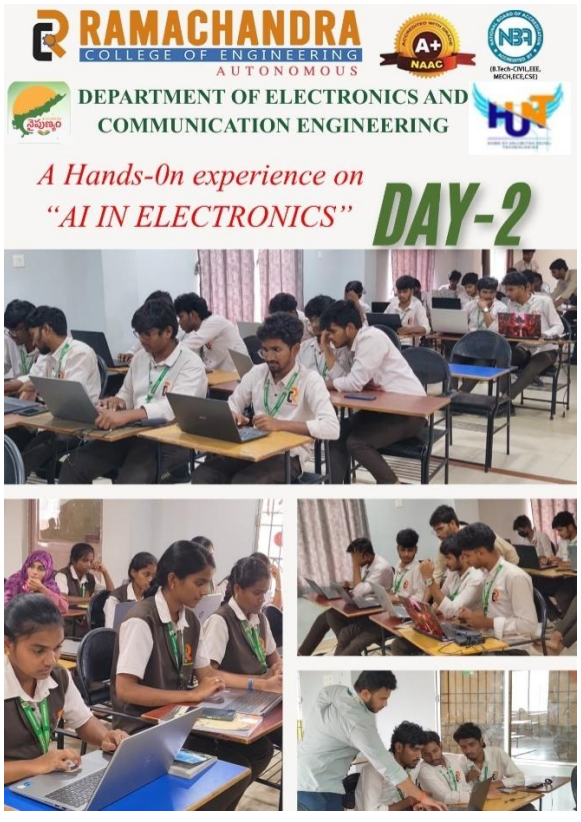
Further, participants gained practical exposure to Generative AI development, including image generation, encoder–decoder architectures, transformer-based models such as BERT, image captioning systems, vector embeddings, semantic search, and Retrieval-Augmented Generation (RAG). They also explored multimodal AI systems and document analysis techniques using advanced tools.

The workshop also provided a strategic perspective on Generative AI, helping participants understand its applications beyond chatbots, the underlying architecture of modern AI systems, and the evolving industry landscape. This knowledge enabled participants to identify how AI can be integrated into various engineering domains.

Overall, the workshop successfully combined theoretical knowledge with practical implementation, enabling participants to develop AI-powered solutions, apply multimodal AI techniques, and analyze real-world engineering problems. It effectively enhanced their technical skills and prepared them for future academic and professional opportunities in the field of AI and Electronics.

Poster of the Event

Few Glimpses of the event:



4. Feedback from Participants

"The workshop on AI in Electronics Provided valuable insights into Generative AI and its practical applications. The Hands- On sessions were highly Beneficial"

—P.Layagayathri (ECE, I Year ,A Sec)

"The sessions were well-organized and easy to understand. Practical exposure to tools like Hugging Face and Google Gemini enhanced my learning experience"

—K. Shanmukha(ECE, I Year, B Sec)

"The workshop effectively combined theory and practice. The real-time applications in audio and ECG signal processing were very informative"

— K Swathika (ECE, I Year, C Sec)

5.Remarksfromthe Resource Person

The resource person appreciated the active participation and enthusiasm of the students throughout the *"AI in Electronics"* workshop. The sessions were found to be effective in combining theoretical knowledge with practical applications using modern AI tools. The workshop successfully achieved its objectives, and participants were encouraged to further explore AI technologies for future academic and professional growth.

— Mr. L . Venkatesh.

Coordinator(s) HoD Dean-Academics Principal