RAMACHANDRA COLLEGE OF ENGINEERING
AUTONOMOUS

Approved by AICTE, New Delhi
Permanently Affiliated to JNTUK
Recognized by UGC 2(f) & 12(B)
Accreditations
NAAC A+
NBA (EEE, CIVIL, ME, ECE & CSE)
ISO 9001 : 2015 Certified

Format: 9014/0

A REPORT ON 2-DAY HANDS-ON WORKSHOP ON "ARTIFICIAL INTELLIGENCE IN MATLAB"

Organized by : Department of Electronics & Communication Engineering

Association with : Shresta Training Research Institute Center & BIST Technologies, Vijayawada.

Name of the Resource Person(s) : 1. Mr. M. Venkatesh, M. Tech., (ECE)
2. Mr. G. Syam kumar, B. Tech. (CSE)

Designation : 1. Managing Director, Shresta Training Research Institute Center, Vijayawada
: 2. AI Trainer, Shresta Training Research Institute Center, Vijayawada

Venue : VI- 304

Date(s) : 09.09.2025 & 10.09.2025

Time : 09.30 AM to 4.30 PM

Name of the Coordinator(s) : 1. Mrs. Y. Lavanya, Associate Professor (ECE) &
2. Mr. NVDP Murthy, Associate Professor (ECE)

No. of participants : 68

Conducted for :

Branch	Year	Semester	No of Students Attended
ECE	III	I	68
Total No of Students Attended			68

Profile of the Resource Person
Munnangi Venkata Reddy is a seasoned MATLAB consultant and trainer with over 11 years of experience in academic and industrial project development. He holds an M. Tech., in Digital Electronics and Communication Systems and has successfully completed more than 1500 projects across domains like image processing, machine learning, signal processing, control systems, and optimization. Renowned for mentoring students and Ph.D. scholars, he has conducted numerous workshops and training sessions nationwide, offering expertise in MATLAB, Simulink, and technical documentation. His strong reputation stems from delivering high-quality simulations, guiding research publications, and providing end-to-end project solutions with precision and reliability.
Report in brief by Organizer / Coordinator / Convener
This report provides a comprehensive overview of the 2-day hands-on workshop on "AI in

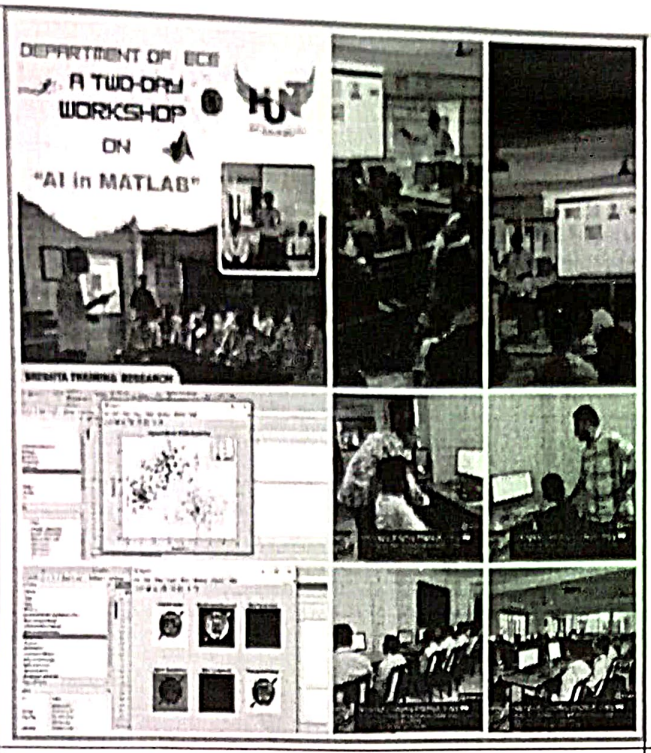
MATLAB" conducted on 09-09-2025 and 10-09-2025 at department of ECE, Ramachandra college of Engineering (A), Eluru. The primary objective of this two-day workshop on *Artificial Intelligence with MATLAB* is to provide participants with a solid foundation in AI concepts while equipping them with practical skills to implement machine learning and deep learning techniques using MATLAB's powerful toolboxes.

The workshop aims to bridge theoretical understanding and hands-on application by introducing AI fundamentals, MATLAB programming essentials, and advanced machine learning methods such as ensemble models, support vector machines, and neural networks. Participants will gain experience in data pre-processing, model training, and evaluation, as well as applying AI techniques to real-world domains like signal processing and computer vision. By the end of the workshop, attendees will be able to confidently use MATLAB to develop, test, and deploy AI models, and they will have completed a mini-project that demonstrates their ability to solve practical problems using AI-driven approaches.

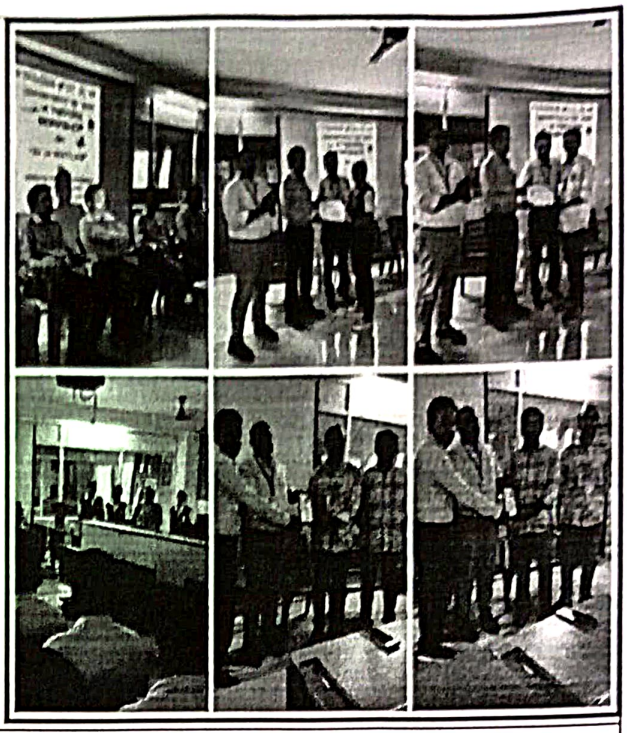
The workshop was divided into two days. The sessions will cover key aspects of **Day 1** introduces the fundamentals of Artificial Intelligence (AI), including its definition, historical evolution, and core branches like machine learning, natural language processing, and computer vision. It also covers the basics of MATLAB, a powerful tool for numerical computing and algorithm development, emphasizing its role in AI prototyping, data visualization, and matrix operations. Participants learn how to use MATLAB's environment and toolboxes to implement simple AI models and analyze datasets.

Day 2 dives deeper into **Advanced Machine Learning**, exploring supervised and unsupervised learning techniques, feature engineering, model evaluation metrics, and optimization strategies. Key algorithms such as Support Vector Machines, Decision Trees, and Neural Networks are discussed, along with concepts like over fitting, cross-validation, and hyper parameter tuning. Practical sessions often involve building predictive models, interpreting results, and deploying solutions using MATLAB's machine learning toolbox.
Ultimately, the workshop enhances both their conceptual knowledge and technical expertise, giving them a strong foundation to pursue advanced studies, projects, or internships in Artificial Intelligence and Machine Learning.

Poster of the Event



Day-1



Day-2

4. Feedback from Participants

"The workshop gave me a strong introduction to Artificial Intelligence and how it can be implemented in MATLAB. I had only basic programming knowledge before, but the step-by-step sessions and lab exercises helped me understand how to build and test AI models. This hands-on experience was very engaging and boosted my confidence to explore AI further in my mini-projects to be done in the even semester."

.....Kota Rajasekhar. III ECE B

"The workshop was very eye-opening as it introduced me to the world of Artificial Intelligence in a simple and practical way. I enjoyed the hands-on lab sessions where we worked with real datasets, and it was exciting to see how quickly we could build and test AI models in MATLAB. This experience has motivated me to learn more about machine learning and apply it in my upcoming academic projects."

.....L. Durga Veneela, III ECE B

"The workshop was informative and gave me a good foundation in AI concepts, but at times the pace felt a bit fast for beginners like me. While I could follow the basics of MATLAB, I struggled slightly during the advanced machine learning sessions. However, the instructors were very supportive and helped clarify doubts, which made the experience valuable overall. With more practice, I feel confident I can now explore AI further on my own."

.....Chittibomma Geetha, III ECE C

5. Remarks from the Resource Person

"The students showed a great interest in learning Artificial Intelligence and demonstrated commendable problem-solving skills during the lab sessions and project work. Their ability to collaborate and adapt to new tools reflects strong potential for future academic and industry contributions."

"I believe that this workshop has equipped the participants with the necessary skills to embark on exciting projects and contribute to the growing field of technology."

"We encourage the participants to continue exploring AI and MATLAB beyond this workshop. The knowledge gained here should serve as a strong foundation for academic projects, internships, and professional careers in AI-driven fields.

"I would like to thank the management and organizers for inviting me to be part of this workshop and for providing a supportive and conducive learning environment."

.....Mr. M. Venkatesh.

Coordinator(s) **HoD** **Dean- Academics** **Principal**