



# A J INSTITUTE OF ENGINEERING AND TECHNOLOGY

NH-66, Kottara Chowki, Mangaluru -575006, Karnataka, INDIA

A Unit of Laxmi Memorial Education Trust®

(Approved by AICTE, New Delhi. Affiliated to Visveswaraya Technological University, Belagavi)

Accredited by NAAC, NBA (CV, CSE, ECE, ISE, ME)

Date: 09/08/2025

## REPORT ON HANDS ON WORKSHOP ON DATA SCIENCE & AI: BRIDGING THEORY AND PRACTICE

|   |  |    |  |     |                               |     |
|---|--|----|--|-----|-------------------------------|-----|
| <b>Name of the Program:</b>                       | <b>Hands on Workshop on Data Science &amp; ai: Bridging Theory and Practice</b>        |    | <b>Program Dates &amp; Timings:</b>      |     | 09/08/2025<br>9.30 AM-4.30 PM |     |
| <b>Name &amp; Details of the Resource Person:</b> | <b>Dr. Vijesh K</b><br>Associate Professor & Head, Department of MCA, AJIET, Mangaluru |    |  |     |                               |     |
| <b>Organized by</b>                               | ISE Department, AJIET  |    | <b>In Association with (clubs/Dept.)</b> |     | ISE Association               |     |
| <b>Number of Participants</b>                     | Students   | 41 | Faculty                                  | 03  | External participants         | --- |
| <b>Program Outcome (PO) Mapping</b>               | PO1, PO2, PO3, PO4, PO5, PO12  |    |  |     |                               |     |
| <b>Coordinators</b>                               | Dr. Krishna Prasad K, Mrs. Sharanya P S.   |    |  |     |                               |     |
| <b>Expenditure</b>                                | ---  |    | <b>Social Media Link</b>                 | --- |                               |     |

**About the Program:** The hands-on workshop was designed to cater to students interested in exploring the fast-evolving fields of Artificial Intelligence and Data Science. With the growing demand for intelligent systems and data-driven decision-making, this program aimed to equip participants with both theoretical insights and practical skills. The resource person emphasized a learn-by-doing approach, ensuring students could directly implement the concepts discussed during the sessions. The workshop was structured into interactive lectures, coding demonstrations, and dataset analysis activities, allowing participants to gain real-time exposure to industry-standard tools and techniques. The initiative served as a bridge between classroom learning and the real-world application of AI and machine learning technologies. Target audience for the workshop is 5<sup>th</sup> Semester ISE students, workshop will enhance their implementation skills which intern help in Building mini project in the current semester.

**Objectives:** The hands-on workshop enable students to

1. To provide participants with a clear understanding of the fundamentals of Artificial Intelligence (AI) and Data Science.
2. To introduce machine learning concepts and their practical applications.
3. To demonstrate building and evaluating data science models using real-world datasets from Kaggle.
4. To enable participants to work with Python programming and Jupyter Notebook for data analysis.
5. To bridge the gap between theoretical concepts and practical implementation in AI & Data Science.

**Outcomes:** On successful completion of program of this lecture/ technical talk/workshop the student should able to:

1. Apply fundamental concepts of AI, Data Science, and Machine Learning to solve real-world problems.
2. Use Python programming and Jupyter Notebook to pre-process, analyze, and model datasets.
3. Implement and evaluate machine learning models using datasets from Kaggle or similar platforms.

**Articulation Matrix:**

| Course Outcomes | Program Outcomes |   |   |   |   |   |   |   |   |    |    |    |
|-----------------|------------------|---|---|---|---|---|---|---|---|----|----|----|
|                 | 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1               | 3                | 3 | 2 | 2 | 3 |   |   |   |   |    |    | 2  |
| 2               | 2                | 2 | 2 | 3 | 3 |   |   |   |   |    |    | 3  |
| 3               | 2                | 3 | 3 | 3 | 3 |   |   |   |   |    |    | 3  |
| <b>Average</b>  | 2                | 3 | 2 | 3 | 3 |   |   |   |   |    |    | 3  |

The Department of Information Science and Engineering organized a one-day hands-on workshop on "Data Science & AI: Bridging Theory and Practice" for students. Dr. Vijesh K, an expert in AI and Data Science, conducted the session.

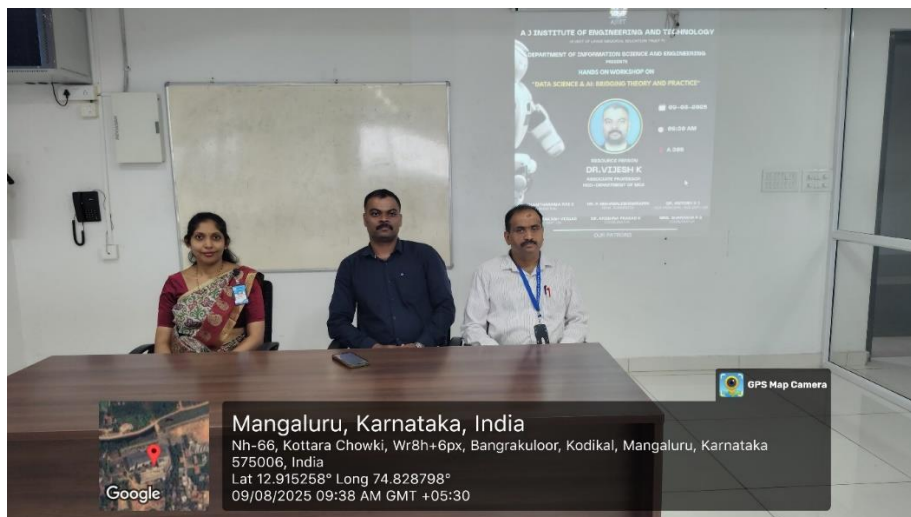
The workshop began with an introduction to AI, Data Science, and Machine Learning, covering basic terminologies, concepts, and their interrelation. The resource person explained supervised and unsupervised learning techniques, data preprocessing, feature selection, and model evaluation.

A practical session was conducted where participants used Kaggle datasets to build predictive models in Python using Jupyter Notebook. The steps included:

- Importing and cleaning datasets

- Applying exploratory data analysis (EDA)
- Training machine learning models
- Evaluating performance metrics

Dr. John Prakash Veigas emphasized the importance of applying the learned concepts in academic projects and real-world problem-solving. Ms. Thanishka 3<sup>rd</sup> year ISE render the Programme. Overall the programme is organised by Dr. Krishna Prasad and Mrs. Sharanya P S.



**Formal Inauguration of the Program**



**Dr. Vijesh K, Addressing the students with Live Demonstration**

**Coordinator**

**HOD**

**Dean Academics**

**Principal**

**For Information:** Vice President, LMET

**Copy To:** IQAC – AJIET