



**SRI DURGA MALLESWARA  
SIDDHARTHA MAHILA KALASALA**

An Autonomous College in the Jurisdiction of Krishna University

A College with Potential for Excellence

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## **FACULTY DEVELOPMENT PROGRAMME REPORT – “RESEARCH METHODOLOGY WITH AI TOOLS”**

**Held By:** INTERNAL QUALITY ASSURANCE CELL

**Date:** 14-06-2025

**Day:** Saturday

**Venue:** Webinar Hall

**Time:** 11:00AM- 12:30PM

**Participants:** 57 Faculty members

**Resource Person:** Dr. Abdul Ahad,

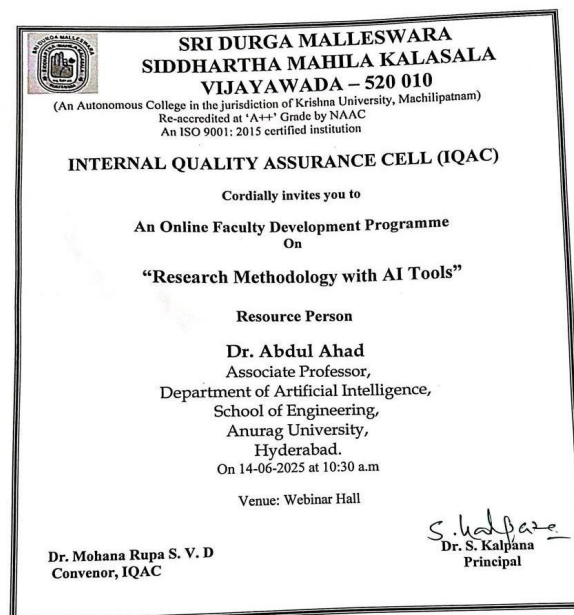
Associate Professor,

Dept. of Artificial Intelligence,

School of Engineering,

Anurag University, Hyderabad

### **INVITATION:**



### **OBJECTIVE:**

- To familiarize faculty members with the fundamentals of research methodology.
- To equip participants with knowledge on problem identification, hypothesis formulation, research design, and data analysis.
- To introduce and train faculty in using AI-powered tools for enhancing research productivity.
- To explore practical applications of AI in both qualitative and quantitative research.
- To promote ethical, efficient, and innovative research practices through AI integration.

### **BIO- DATA OF RESOURCE PERSON:**

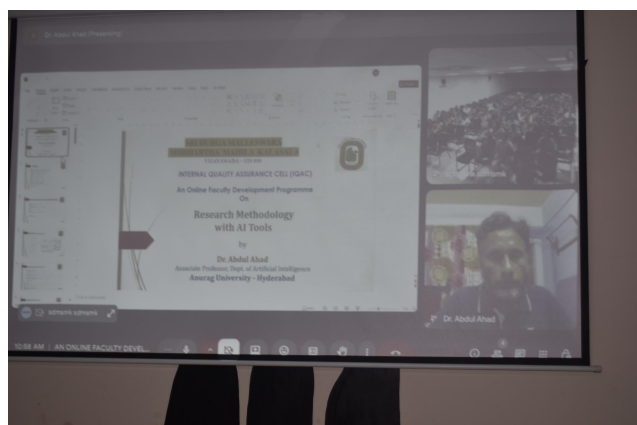
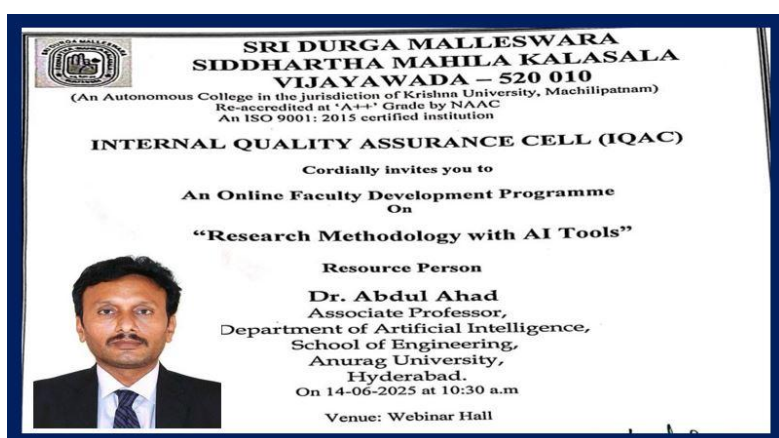
Dr. Abdul Ahad is working on Artificial Intelligence and Machine Learning projects especially focusing on applications of those in managing software projects. He completed his UG and PG degree in Computer Science Engineering from Jawaharlal Nehru Technological University, and he did Ph.D in Computer Science Engineering from Acharya Nagarjuna University in 2019 . He has more than twenty years of teaching experience in various educational institutions and at present he is working as Associate Professor in the department of Artificial Intelligence, Anurag University, Hyderabad. He is a member of professional bodies like ACM, IAENG, CSTA, and SOLETE and he act as a reviewer to Springer, IEEE, Elsevier and UGC journals. His research expertise includes Data Mining, Data Science, Artificial Intelligence and Machine Learning. He has been honored with Best Teacher and Researcher Awards for the year 2021 and 2023 .

### **DESCRIPTION:**

The Faculty Development Programme was centered on bridging conventional research processes with modern AI-enabled solutions. The session began with a comprehensive overview of research methodology, including types of research, problem identification, literature review, hypothesis development, data collection techniques, and statistical methods.

The highlight of the FDP was the detailed introduction to AI tools supporting different phases of the research process. Tools like Research Rabbit, Scite.ai, Semantic Scholar, Elicit, ChatGPT, Paperpal, Grammarly GO, and Power BI Copilot were demonstrated with practical examples. Case studies in medical and social science research were also presented to showcase real-world AI applications.

Furthermore, the ethical implications of AI in research were addressed, with emphasis on data privacy, bias mitigation, and plagiarism detection using tools like Turnitin and Quillbot.





### OUTCOME:

1. Participants gained a structured understanding of research methodology and its practical implications.
2. Faculty were introduced to a variety of AI tools, improving their efficiency in literature review, data analysis, and research writing.
3. Attendees learned about AI's role in enhancing qualitative and quantitative research approaches.
4. Awareness was raised about ethical AI usage and digital tools for plagiarism checking and academic integrity.
5. The session encouraged interdisciplinary research and adoption of innovative practices in academic research.

**ATTENDANCE:** 57 faculty attended the session.

### FEEDBACK:

What aspects of this lecture was most useful or valuable?

The following are the different answers from faculty members

- Introduction to AI-based tools like ChatGPT, Grammarly, and Quillbot for improving research writing, literature review, and paraphrasing with academic integrity.
- Demonstration of AI tools for data analysis, which enhanced understanding of how to apply AI in quantitative and qualitative research.
- Clear explanation of how AI can assist in formulating research problems, designing methodology, and identifying gaps in literature.

- Guidance on ethical considerations while using AI in academic research, ensuring responsible usage and avoiding plagiarism or data fabrication.
- Practical tips on integrating AI tools throughout the research cycle, from topic selection to publication, which made the session immediately applicable and relevant.

