

6 DAY FACULTY DEVELOPMENT PROGRAMME  
UNDER AICTE TRAINING & LEARNING (ATAL)  
ACADEMY on

# RESEARCH APPLICATIONS IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

**08.01.2024 – 13.01.2024**

*Organized by:*

**Dept. of Computer Science & Engineering**

*Sponsored by:*

**AICTE Training & Learning (ATAL) Academy**

## ABOUT THE INSTITUTION

St. Joseph's College of Engineering and Technology, Palai is established in the year 2002 and managed by the Diocesan Technical Education Trust, Palai under the Diocese of Palai. SJCTET was instituted with the objective of developing a centre of professional learning with a distinct identity and character, for imparting education and training in a truly Christian environment, fostering Christian values of faith and love to God and fellowmen. The college aims to provide the kind of education that helps to achieve academic excellence and thereby ensures a challenging and satisfying career for the students on the successful completion of the programme.

## VISION

Developing into a world-class, pace-setting Institute of Engineering and Technology with distinct identity and character, meeting the goals and aspirations of the society.

## MISSION

- To maintain a conducive infrastructure and learning environment for world class education.
- To nurture a team of dedicated, competent and research oriented faculty.
- To develop students with moral & ethical values, for their successful career by offering variety of programmes and services.

## ABOUT THE DEPARTMENT

The Department of Computer Science and Engineering was established in the year 2002 and since its inception, the department has progressed with a vision and strong commitment in developing competent engineers with uncompromising standards of excellence in training, both through class room sessions and hands-on sessions. The department is equipped with competent and dedicated faculty members with expertise in current technologies. The department strives for uplifting the skill of the students to bring innovative ideas from them with professionalism



and ethical values. The department offers B. Tech (Accredited by NBA), M. Tech and Ph.D programmes. The department is a recognised research centre of APJ Abdul Kalam Technological University, Thiruvananthapuram. The department has been maintaining an active interaction with the professional bodies like CSI and IEEE CS.

## VISION

To evolve as a school of computing with globally reputed centres of excellence and serve the changing needs of the industry and society.

## MISSION

- The department is committed in bringing out career oriented graduates who are industry ready through innovative practices of teaching and learning process
- To nurture professional approach, leadership qualities and moral values to the graduates by organizing various programs periodically
- To acquire self-sustainability and serve the society through research and consultancy.

## OBJECTIVES OF THE FDP

The objective of this 6-day Faculty Development Programme is to provide educators and researchers with a comprehensive understanding of the practical applications of Artificial Intelligence (AI) and Machine Learning (ML).

## OUTCOMES OF THE FDP

The primary goal of the FDP is to equip educators and researchers with an extensive grasp of the real-world implementations of Artificial Intelligence (AI) and Machine Learning (ML). Throughout the program, participants will gain in-depth insights into the practical applications of these cutting-edge technologies, enabling them to effectively integrate AI and ML concepts into their teaching, research, and professional endeavors. By the end of the program, attendees will possess a comprehensive understanding of how AI and ML can be harnessed to address complex challenges across various domains, thus empowering them to contribute meaningfully to advancements in these fields.

## TARGET GROUP

The faculty members of the AICTE approved institutions, research scholars (PG and Ph. D), participants from Government, Industry (Bureaucrats / Technicians / Participants from Industry etc.) and staff of host institutions.

## REGISTRATION

Please register at  
<https://www.aicte-india.org/atal>



No registration fee for participation. Outstation participants from AICTE approved institutions will be given TA/DA as per AICTE norms. Selection will be done based on first-cum-first serve basis and the confirmed candidates will be notified immediately. Registration can be done through ATAL website. The certificates shall be issued to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.

## RESOURCE PERSONS

- Mr. Robin Tommy, Impact Innovations Leader, TCS
- Ms. Deepasree Varma, Senior Knowledge Officer, ICT Academy of Kerala

- Mr. Sumod Sundar, Center for AI, TKM College of Engineering
- Mr. Karthik, AI Engineer, Litmus7
- Dr. Arun KS, Assistant Professor, CUSAT
- Dr. Shailesh S, Assistant Professor, CUSAT
- Dr. Prem Sankar C, Professor in AI, ICCS College of Engineering and Management
- Dr. Rajesh Baby, Dean Research, SJCT Palai
- Mr. Abu Thoppan, Senior Specialist, IHis, Singapore
- Mr. Sarju S., Assistant Professor, SJCT Palai

## TOPICS TO BE COVERED

- Artificial Intelligence and Applications
- Introduction to Learning Techniques with a Case Study of Supervised Learning using Python
- Various Unsupervised Learning Techniques with detailed discussion on Clustering Techniques and a Case Study
- Time Series Analysis and Object Detection in TensorFlow
- Scrapping, Preprocessing and Analyzing Textual Data using Python
- Medical Image Analysis using ML
- Exploring Reinforcement Learning
- Introduction to Generative AI
- Research Methodology
- Strategic role of Alternative data in Health domain

## IMPORTANT DATES

Last date of receipt of filled application form:  
**03<sup>rd</sup> January 2024**

Date of intimation of selection:  
**04<sup>th</sup> January 2024**

Chief Patron : **Msgr. Dr. Joseph Maleparampil**  
*Chairman, SJCT Palai*

Patron : **Rev. Fr. Mathew Koramkuzha**  
*Manager, SJCT Palai*

## ADVISORY COMMITTEE

**Dr. V. P. Devassia**, *Principal, SJCT Palai*  
**Dr. Madhukumar S.**, *Vice Principal, SJCT Palai*  
**Deans and HoDs**, *SJCT Palai*

## ORGANIZING COMMITTEE

Convener: **Dr. P. P. Joby**, *HoD, CSE*  
Coordinator: **Prof. Sarju S.**, *Assistant Professor, CSE*  
Co-Coordinator: **Prof. Mereen Thomas**, *Assistant Professor, CSE*  
Members: **CSE Staff members**, *SJCT Palai*

## CONTACT DETAILS

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