



6 Days

**AICTE Training and Learning (ATAL) Academy Sponsored
Faculty Development Programme (Online)**

on

**“AI and Innovative Engineering in Healthcare:
From Smart Implants to Wearable Tech”**

06.10.2025 to 11.10.2025

Sponsored by

AICTE Training and Learning (ATAL) Academy

Organised by

IQAC, Cell

Mody University of Science and Technology,

Lakshmangarh, Rajasthan, India-332311

Website : <https://www.modyuniversity.ac.in>

About Mody University

Mody University of Science and Technology, located in the university town of Lakshmangarh, Rajasthan, is a premier institution dedicated to women's education. Accredited with NAAC A+ grade and honored with a Diamond Rating by QS I-GAUGE and is recognized under UGC Sections 12(B) and 2(f). In the Women's University category, the university stands as a benchmark of academic excellence. Sprawling across 265 acres, Mody University offers a serene, secure, and green campus environment that supports holistic development. With a strong commitment to nurturing excellence in every student, the university boasts world-class infrastructure and a highly experienced faculty.

For over 27 years, Mody University has been synonymous with quality education for women. It actively promotes scientific thinking and the meaningful dissemination of knowledge for the betterment of society at large.

The University has separate Schools to impart the knowledge of various integral disciplines like Business, Design, Engineering and Technology, Law, and Liberal Arts & Sciences. To ensure the proper grooming of the students, the University has collaborated with Civility Experts Canada and come up with School of Etiquette and Finishing Skills additionally.

AICTE –Teaching and Learning (ATAL) Academy

The AICTE-ATAL Online Faculty Development Program (FDP) is a prestigious initiative launched by the All India Council for Technical Education (AICTE) through its ATAL (Academy for Teaching and Learning) Academy. Designed for faculty members, postgraduate students, research scholars, and industry professionals affiliated with AICTE-approved technical institutions, the program aims to elevate both academic and professional capabilities.

These FDPs focus on strengthening domain-specific expertise, fostering industry-academia connections, and enhancing leadership, communication, and teaching-learning effectiveness. Through structured training modules, the program empowers participants to stay abreast of emerging trends while cultivating a forward-thinking, learner-centric approach to education.

About IQAC Cell

The Internal Quality Assurance Cell (IQAC) at Mody University plays a pivotal role in fostering a culture of continuous improvement across academic and administrative functions. Through regular reviews and strategic meetings, the IQAC ensures the effective implementation of quality enhancement initiatives. Deeply aligned with the university's mission of empowering women through education, the IQAC upholds excellence by integrating best practices with statutory guidelines, thereby reinforcing Mody University's commitment to innovation, inclusivity, and academic distinction.

About SET:

With a legacy spanning 25 years, SET (School of Engineering and Technology) at Mody University stands as a beacon of excellence in women's technical education, nurturing over 10,000 successful alumnae across the globe. As one of India's most prestigious institutions for women, SET is dedicated to shaping future leaders through an unparalleled academic journey. SET is honored with Platinum award by IEI Engineering Education and Excellence 2024 in Women's Engineering category.

The School has six departments – Computer Science and Engineering, Electronics and Communications Engineering, Electrical Engineering, Mechanical Engineering, Biomedical Engineering, and Nuclear Science and Technology running UG and PG courses. The school enjoys an enviable reputation among the leading companies that visit School of Engineering and Technology for campus placement. Some of the prominent recruiters are Amazon, Hewlett Packard, Accenture, Capgemini, Honeywell, L&T Technology, IBM, Infosys, Ericsson and Tech Mahindra.

About FDP

This interdisciplinary Faculty Development Program (FDP) is designed to empower faculty, researchers, and professionals with advanced knowledge and practical skills to develop smart, affordable, and inclusive medical technologies that align with the vision of Atmanirbhar Bharat (self-reliant India). Participants will explore cutting-edge domains such as Artificial Intelligence (AI) and Machine Learning (ML) in medical diagnosis, Internet of Medical Things (IoMT), wearable health devices, neurotechnology, and rehabilitation engineering.

The program also emphasizes biomaterials, biomechanics, biosensors, and immersive technologies including augmented and virtual reality (AR/VR) for medical education and surgical applications. Through a balanced approach combining rigorous academic insights and hands-on learning, attendees will learn how to integrate these technologies into scalable and cost-effective healthcare solutions.

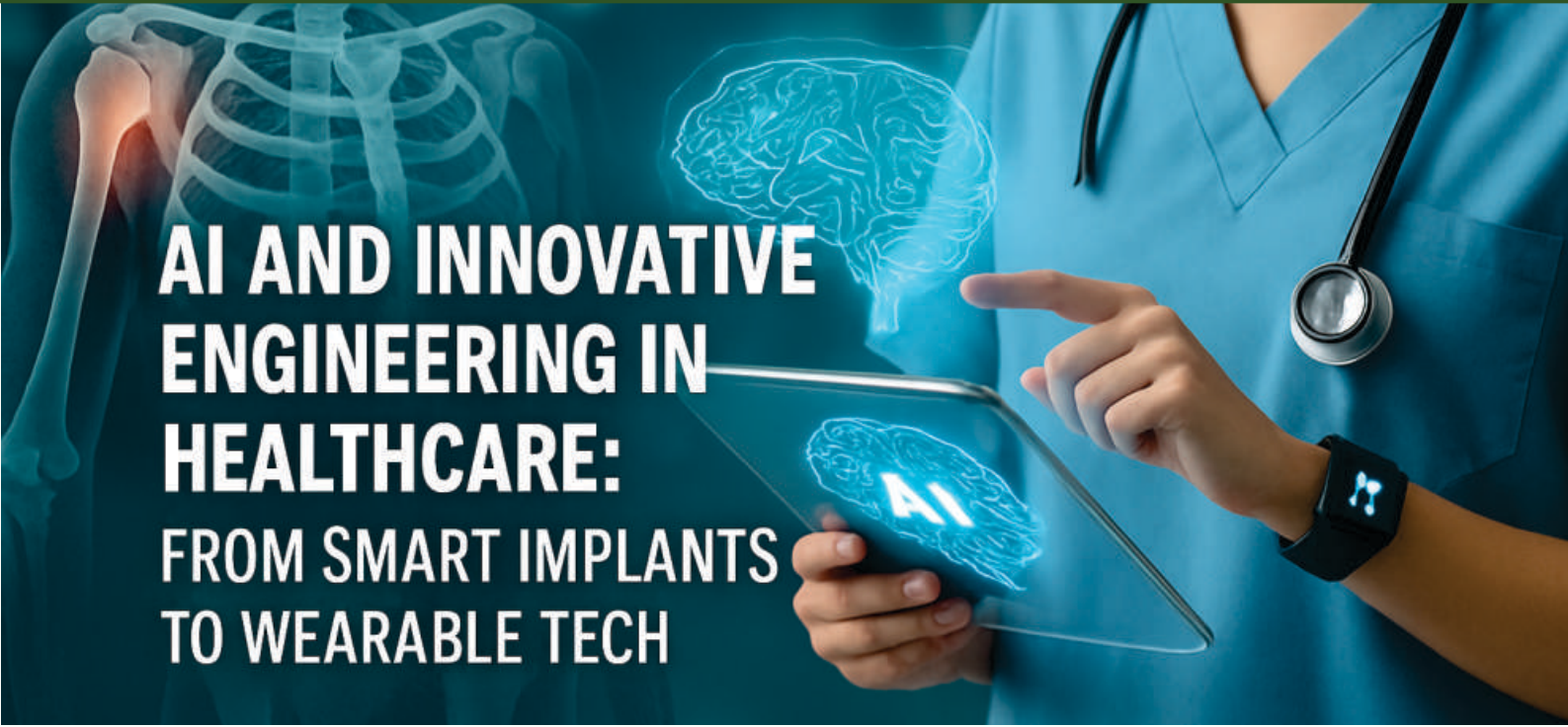
The FDP will also address critical challenges related to healthcare ethics, patient data privacy, and cybersecurity, fostering innovation and design thinking necessary for creating inclusive healthcare systems that are accessible and affordable to all.

FDP Objectives:

- To facilitate knowledge transfer by presenting core domain content of machine learning and Generative AI
- Techniques for Health Care Innovation by ensuring that both academic, industry and research communities can effectively integrate new insights into their work.
- To enhance critical thinking and problem-solving abilities by creating lab exercises in machine learning techniques that train participants to work with real-life scenarios in the field of health care.
- To discover and contribute to the development of new methodologies in the field of health care and frameworks within the field of traditional research approaches and enhancing the rigor and applicability of future studies.
- To foster industry-academia collaboration in training, ensuring that course content and methodologies reflect current market demands, trends, and technologies.
- To foster a learner-centered approach by training participants to design and implement interactive, inclusive, and adaptive teaching methods that address the diverse needs of students in the area of Generative AI Techniques for Health Care

FDP Outcome:

- Participants will be equipped with relevant, up-to-date knowledge and methodologies, making them to apply these insights in their teaching and research.
- By training with real-life scenarios, participants will be able to apply theoretical knowledge in a more practical and relevant context.
- By implementing teaching methods that are both interactive and adaptive, teachers will lead to improved learning outcomes of the students.
- Industry-academia interfacing ensures that course content and training methodologies are agile and able to quickly incorporate emerging technologies trends and best practices.



AI AND INNOVATIVE ENGINEERING IN HEALTHCARE: FROM SMART IMPLANTS TO WEARABLE TECH

FDP Content:

1. Introduction to Cloud Computing & IoT in Healthcare
2. Mental Health Monitoring Using IoT Devices and Eye Trackers
3. Building Intelligent Healthcare Solutions using Google Cloud Platform (GCP)
4. Security and Privacy Challenges in Cloud-IoT Healthcare Applications
5. Emerging Trends and Future Directions in Cloud-IoT Healthcare Systems

Target Participation: Faculty Members, Research Scholars, PG Students from AICTE approved Institutions. Industry Persons, Practitioners and innovators involved in biomedical Engineering, Electronics and Instrumentation, Computer Science, Mechanical and Mechatronics Engineering, Rehabilitation Sciences, and medical device development who are interested in advancing smart, affordable, and inclusive medical technologies aligned with India's self-reliance vision.

REGISTRATION AND OTHER DETAILS:

- For registration, please use the link: <https://atalacademy.aicte-india.org/signup>
- No fee will be charged from any participant attending ATAL FDP.
- Candidates are requested to register at the earliest, as the number of seats is limited.
- The FDP will be held in ONLINE mode.
- The certificates shall be issued by ATAL academy to those participants who have attended the program with minimum 80 % attendance and scored minimum 70 % marks in the test conducted at the end of the FDP.

Patron : Prof. (Dr.) Ashutosh Bhardwaj, (President-MUST)

Convener : Prof. (Dr.) Prateek Bhanti, (Dean-SET)

FDP Coordinator and Co-coordinator:

- Dr. Jeetu Sharma, Electronics Engineering Department, SET, Mody university
- Dr. Sandeep Jaiswal, Biomedical Engineering Department, SET, Mody university

Themes of FDP:

- AI and Machine Learning in Diagnostic and Predictive Healthcare
- Wearable Devices and IoMT for Real-Time Monitoring
- 3D Printing and Custom Implants in Biomedical Applications
- Innovations in Biomaterials and Smart Assistive Devices
- Blockchain and Cybersecurity in Digital Health
- Entrepreneurship and Product Development in Biomedical Engineering
- Frugal and Inclusive Innovations for Rural Healthcare
- AR/VR in Medical Education and Surgical Planning