

**AICTE – Training & Learning  
(ATAL) Academy Sponsored  
Program on  
Design Thinking for Innovative Medical Devices  
Sep 21<sup>st</sup> – Sep 25<sup>th</sup>, 2020**



**Venue: Online @Advanced Manufacturing & Mechatronics Lab**

**Organized by**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**Malaviya National Institute of Technology Jaipur**  
*(Institute of National Importance under Ministry of HRD Govt. of India)*  
**J.L.N. Marg, Jaipur - 302017**  
**Rajasthan, India**  
**[www.mnit.ac.in](http://www.mnit.ac.in)**

## ***About MNIT:***

Malaviya National Institute of Technology Jaipur (Deemed University) is one of the premier NITs, designated with the status of “Institute of National Importance” by MHRD. The institute was established in 1963, and its campus spreads over 325 acres of lush green area in the central location of Jaipur city. The institute offers undergraduate and postgraduate courses (B.Tech., M.Tech. /MBA / M.Sc. & Ph.D.) to about 4500 students, in leading fields of engineering, technology, architecture, management & sciences. Through the internationally renowned faculty, laboratories with state of art equipment and excellent infrastructure, the institute is actively engaged in research, consultancy and developmental activities, besides imparting regular teaching. MNIT Jaipur is ranked at 35th position in NIRF 2020 Ranking.

## ***About Mechanical Engineering Department***

The Department is one of the oldest departments of the institute, offering a fine blend of experience and innovation in teaching. Presently, offering undergraduate in Mechanical Engineering and post-graduate studies in Design Engineering, Thermal Engineering, Production Engineering and Industrial Engineering. The department is home to over 100 research scholars, pursuing Ph.D. in various fields of Mechanical Engineering. The department provides a life-long learning experience, through its state of art laboratories, vast pool of courses, and industry orientation.

## ***About Advanced Manufacturing & Mechatronics Laboratory***

The Lab. houses state of the art manufacturing equipment i.e. Cincinnati® VMC, Bridgeport® CNC Milling M/c, MTAB® TC, MICROTECHNICA® AFM, JCF® AFM, Electronica® EDM, MIKROTOOLS® Hybrid Micro-EDM, Kistler® Dynamometer, Taylor Hobson® Surface Roughness Tester, Anton Paar® Rheometer, 3D printers, Sensor workbenches, PLCs, microcontrollers, DAQs etc. Lab also has a student club “MNIT CAM SOCIETY” <https://camsociety.in/> dedicated to design and analysis for manufacturing technologies and have hosted scholars/students/interns from across India & abroad. The lab not only acts as maker space but stimulates an ambiance of critical thinking, which led its students to file patents, register startups, and win many national and international competitions / scholarships like 3D Student Design Challenge, WorldSkills, SIH, Marie Curie Fellow etc.

### ***Program Overview:***

This FDP is planned in online mode, where the concepts and case studies of Design Thinking will be deliberated to whereby the engineers can think out of box and formulate design solutions to satisfy the growing demands by exploring all the phases of product development.

In the medical devices sector, design and development is a complex process which involves various roles and phases. The programme will focus on the interdisciplinary needs for Medical Device Design, covering topics ranging from understanding basic medical terms to product design and human factors. At the core of the programme is a focus on the needs of people in healthcare.

The goal of this online short term course is to share with the participants the cutting edge research and development, carried out / observed, by the speakers in Design Thinking domain, for Innovative Medical Devices, for self-reliance of the country. The speakers are distinguished research faculties from Foreign Universities, IIT's, NIT's, CFTI's, industry and other reputed institutions

### ***FDP participants will learn:***

- to conduct human centered contextual research, extract meaningful insights, generate & visualize concepts and develop & evaluate prototypes, all in the context of the complex and highly regulated world of medical device design.
- the medical, social, and engineering aspects of medical devices specific to design and some frameworks for defining and measuring progress toward a sustainable society.
- to design by taking into consideration desirability, feasibility and viability.

### ***Target Audience:***

- The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/ Technicians/ Participants from Industry etc.).
- Maximum 200 participants may be allowed to attend online FDP on a first come first serve basis.
- An online test shall be conducted at the end of the program.
- 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.

***Co-ordinators:*** (1) Dr. Harlal Singh Mali, Associate Professor, MNIT Jaipur  
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(3) Dr. Tapas Bajpai, Assistant Professor, MNIT Jaipur

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***For more details about AICTE-ATAL Academy please visit***

***<https://www.aicte-india.org/atal>***