



AICTE TRAINING AND LEARNING (ATAL) ACADEMY SPONSORED ONE WEEK

ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

on

Design Thinking for Innovative Medical Devices

21 - 25 September, 2020

Coordinators

Dr. Harlal Singh Mali

Dr. Anup Malik

Dr. Tapas Bajpai

Organized by

*Department of Mechanical Engineering
Malaviya National Institute of Technology Jaipur*

For Registration Visit

<https://atalacademy.aicte-india.org/login>



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Director, MNIT Jaipur



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Online Faculty
Development
Programme (e-FDP)

On

**Design Thinking
for Innovative
Medical Devices**

21-25 Sept 2020

Organized by

Advanced

**Manufacturing &
Mechatronics
Laboratory**

**Department of
Mechanical
Engineering**

**Malaviya
National Institute
of Technology
Jaipur**

DAY 1



21 Sept 2020
9:30 AM -11:00 AM

Prof. B Ravi,
IIT Bombay

Medical Device Innovation: Idea
to Impact



21 Sept 2020
12:00 PM -1:30 PM

Prof. J Ramkumar,
IIT Kanpur

Medical Device Development
Case Study



21 Sept 2020
3:00 PM -4:30 PM

Prof. A M Kuthe
VNIT Nagpur

Design of Innovative Class III
Medical Devices and Tissue Engg.

DAY 2



22 Sept 2020
9:30 AM -11:00 AM

Prof. Gavin Melles,
Swinburne Univ., Aus.

Design Thinking for Innovative
Product Development



22 Sept 2020
11:15 AM -12:45 PM

Prof. S Kanagaraj,
IIT Guwahati

Medical Devices Development
Case Studies

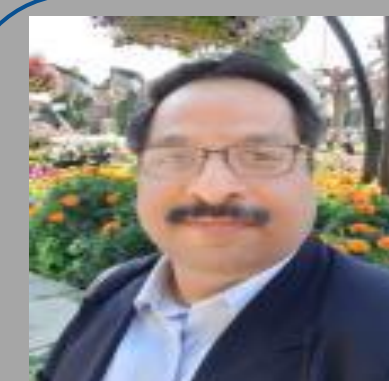


22 Sept 2020
3:00 PM -4:30 PM

Dr. Harlal Singh Mali
MNIT Jaipur

Design Thinking Cases on Jaipur Foot
Manufacturing Standardization and
Orthosis for Club Foot Treatment

DAY 3



23 Sept 2020
9:30 AM -11:00 AM

Prof. SP Regalla ,
BITS Hyderabad

Leveraging Latest Engg. Design
Technologies for Improved Medical Devices
for Productive Rehabilitation of Patients



23 Sept 2020
11:15 AM -12:45 PM

Prof. N Bhatnagar,
IIT Delhi

Medical Implants – Idea to
Realization – A Journey to Tell

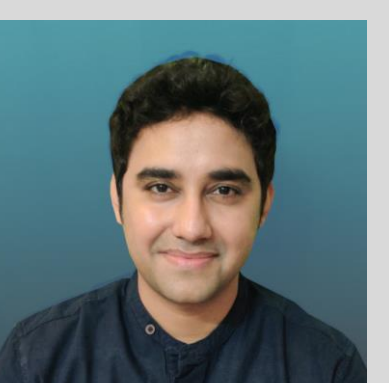


23 Sept 2020
3:00 PM -4:30 PM

Prof. A K Sharma,
IIT Roorkee

Design Thinking Approach to
Development of Medical Devices

DAY 4



24 Sept 2020
9:30 AM -11:00 AM

Sh. Vivek Agarwal
Art of Living

Science & Spirituality



24 Sept 2020
11:15 AM -12:45 PM

Prof. Bala Ramadurai,
NPTEL & SIBM Pune

Introduction to Design Thinking
- Real life applications



24 Sept 2020
3:00 PM -4:30 PM

Prof. Bala Ramadurai,
NPTEL & SIBM Pune

Design thinking - Empathize
with your users

DAY 5



25 Sept 2020
9:30 AM -11:00 AM

Prof. Bala Ramadurai,
NPTEL & SIBM Pune

Design Thinking - Analyze to
unearth latent or unsaid needs



25 Sept 2020
11:15 AM -12:45 PM

Prof. Bala Ramadurai
NPTEL & SIBM Pune

Design Thinking - Solve and test
to alleviate your users' pain



25 Sept 2020
3:00 PM -4:30 PM

Dr. Anup Malik, Dr. Tapas Bajpai
Dr. Harlal Singh Mali

Feedback, Exam & Valedictory



**Course
Coordinators**
**Dr. Harlal Singh
Mali**
Dr. Anup Malik
Dr. Tapas Bajpai

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**For
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demy.aicte-
india.org/login](https://atalacademy.aicte-india.org/login)**



About MNIT Jaipur	About Faculty Development Programme	Organizing Committee
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.	Design Thinking (DT) in its fullest, is as much a mind set as a process where emphasis is given to user-centric approach to problem solving. DT has proven to work well in VUCA (volatile, uncertain, complex and ambiguous) ambiance. In the medical devices sector, design and development till their commercialization is a complex process, involving state of the art technologies, interdisciplinary teams, government norms, ethics, commercial interests and the user, making a fit case of VUCA environment. This FDP is planned in online mode, where the concepts of Design Thinking and Case Studies on innovative medical device development will be deliberated. At the core of the programme is the focus on the needs of people in healthcare. The goal of this online faculty development programme is to share with the participants the principles of Design Thinking and its application based cases on innovative medical device development specific to country like India, 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, industry and other reputed organizations.	<p>Patron Prof. Udaykumar R Yaragatti, Director, MNIT Jaipur</p> <p>Chairman Prof. Murari Lal Mittal, Head of the Department, Mechanical Engineering Department, MNIT Jaipur</p> <p>Course Coordinators Dr. Harlal Singh Mali, Associate Professor, Mechanical Engineering Department, MNIT Jaipur</p> <p>Dr. Anup Malik, Assistant Professor, Mechanical Engineering Department, MNIT Jaipur</p> <p>Dr. Tapas Bajpai, Assistant Professor, Mechanical Engineering Department, MNIT Jaipur</p>
About Mechanical Engineering Department	Target Audience & Programme Requirements	About Advanced Manufacturing & Mechatronics Laboratory
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.	<p>The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/ Technicians/ Participants from Industry etc.).</p> <p>Maximum 250 participants will be allowed to attend online FDP on a first come first serve basis.</p> <p>An online test shall be conducted at the end of the program.</p> <p>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.</p> <p>There is no registration fee for attending the programme.</p> <p>For registration link and programme details please visit https://atalacademy.aicte-india.org/login</p>	<p>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, CAD/CAE/Data Acquisition Tools etc. Lab also has a student club “MNIT CAM SOCIETY” https://camsociety.in/ dedicated to use of manufacturing technologies for innovative product development involving Design Thinking and have hosted scholars / 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.</p>
Address for Communication		
<p>Dr. Harlal Singh Mali, Associate Professor, Department of Mechanical Engineering, Malaviya National Institute of Technology Jaipur, J.L.N. Marg, Jaipur-302017, Rajasthan Mobile:- +91-9549654561, E-mail- camsocietyautodesk@gmail.com</p>		  