



Two Day Online Workshop on

3D Printing Solutions for Medical Innovation (3DPSMI-2021)

July 17-18, 2021

3DPSMI-2021

Website

Organized by

**Advanced Manufacturing Centre,
Department of Mechanical Engineering,
National Institute of Technology Calicut, Kerala, India**

In Collaboration with

MVR Cancer Centre & Research Institute, Calicut, Kerala, India

Coordinators: Dr. Jose Mathew, Dr. Deepak Lawrence K, Dr. Basil Kuriachen and Dr. M. Dinesh (MVRCCRI)

PREAMBLE

Additive Manufacturing/3D printing is an integral part of Industry 4.0 and has widely emerged as a disruptive technology of this era. It is an innovation that enables to design and manufacture products of any shape which are becoming need of the hour and popular in all fields, particularly in Engineering & Medicine. Even if one doesn't have the appropriate equipment, access to 3D printers (via online services) is much more widespread than with conventional manufacturing techniques. In this workshop emphasis is given on deliberation of 3D printing challenges to medical applications. The online workshop aims to bring together some of the eminent experts in this emerging field to discuss about the latest developments and the various challenges.

ABOUT NIT CALICUT

National Institute of Technology Calicut (NITC) is one of the 31 institutions of national importance governed by the NIT Act 2007 and is fully funded by the Government of India. Originally established in 1961 as a Regional Engineering College (REC), it was transformed into a National Institute of Technology in the year 2002. The Institute offers bachelors, masters and doctoral degree programmes in Engineering, Science, Technology and Management. With its proactive collaborations with a multitude of research organizations, academic institutions and industries, the Institute has set a new style for its functioning under the NIT regime. The Institute is presently offering eleven UG programme and thirty PG programme along with Ph.D. programme in various fields of Engineering, Science Technology and Management; <http://www.nitc.ac.in>



ABOUT MECHANICAL ENGINEERING DEPARTMENT AND ADVANCED MANUFACTURING CENTRE@ NITC

Department of Mechanical Engineering is the largest and one of the oldest departments in the Institute. We are celebrating the Diamond Jubilee Year during 2021. The Department offers two undergraduate and six postgraduate programmes apart from Ph.D. programmes in diverse specializations. It offers a number of short term/continuing education programmes. It is a DST- FIST sponsored department and recently DST has sanctioned Rs 2.51 Crore under FIST scheme to set up a Centre for Precision Measurements and Nano Mechanical Testing. Advanced Manufacturing Centre in the department has one of the finest facilities available in manufacturing; <http://amc.nitc.ac.in/>

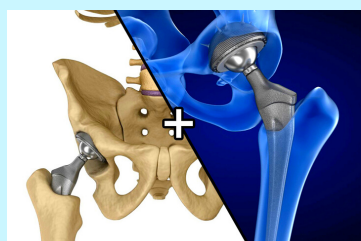
WORKSHOP OUTCOMES

On completion of this workshop, participants are expected to understand the fundamentals and recent advancements of 3D Printing techniques and their applications in the medical/dental/bio-engineering field.

IN COLLABORATION WITH



SPONSOR



Advanced Manufacturing Centre

Department of Mechanical Engineering, National Institute of Technology Calicut, Kerala, India.

RESOURCE PERSONS

DAY 1

Mr. S Somanath, Director, VSSC, Thiruvananthapuram

Opening Session: Chief Guest

Dr. P Radhakrishnan, Director, PSGIAS

Keynote address 1

Dr. M. Vijayakumar, Vice Chancellor, Yenepoya University, Mangalore

Keynote address 2

Dr. K. P. Karunakaran, Institute Chair Professor, IIT Bombay

3D Printing: A Disruptive Technology of this Era

Dr. C. P. Paul, Head, LAML, RRCAT, Indore

Developments in Additive Manufacturing Routes; Metals & Alloys- Indian Scenario

Dr. Bikramjit Basu, Professor, IISc Bangalore

Thinking beyond 'Black-Box': Quantitative Process Physics of 3D Inkjet Powder Printing and Adaptability to Bio material Scaffolds Unveiled

Dr. Dinesh M, Head, Radiation Oncology Division, MVRCCRI

Panel Discussion Theme: Challenges Faced during Adaptation of 3D Printing Solutions in Medical Applications

PANELISTS

Dr. Mahesh K, Clinical Professor, Paediatric Cardiology, AIMS Kochi

Dr. Sheeja Rajan, Associate Professor & Head, Plastic Surgery, Medical College, Calicut

Dr. Pramod Sudarshan, Consultant Spine Surgery, Aster MIMS, Calicut

Dr. Rohan Shetty, Associate Professor, Surgical Oncology, Yenepoya University, Mangalore

Dr. Pramod Subash, Clinical Professor & Chief, Cranio-Maxillofacial Surgery, AIMS, Kochi

Dr. Sherry Peter, Lead Consultant, Cranio-Maxillofacial Surgery, Aster Medcity, Kochi

Dr. Manojkumar K.P, Principal, Professor and Head, KMCT Dental College, Calicut

Dr. Bikramjit Basu, Professor, IISc Bangalore

Dr. C.P. Paul, Head, LAML, RRCAT, Indore

WHO CAN ATTEND?

- Doctors, Engineers, Academicians, Healthcare Professionals, Ph.D. Scholars, PG Students from Technical/Medical Educational Institutes.
- On completion of the programme, participants will be awarded an E Certificate.
- Minimum 80% attendance at the end of the workshop is compulsory for certification.

PLATFORM: Online (Cisco WebEx)

Any of your queries can be send to 3dpsmi2021@nitc.ac.in

Workshop Web site, [click here](#)

3DPSMI-2021

RESOURCE PERSONS

DAY 2

Dr. B. Ravi, Institute Chair Professor, IIT Bombay

Medical Device Innovation: Idea to Impact

Dr. Rupesh Ghyar, Senior Executive Officer, BETiC, IIT Bombay

BETIC Products: Role of Rapid Prototyping

Mr. Bhanupratap Gaur, Senior Research Fellow, BETiC, IIT Bombay

3D-Printed Models, Jigs and Implants

Dr. J. Ramkumar, Professor, IIT Kanpur

Additive Manufacturing/3D Printing- Processes and Latest Trends

Dr. Khalid Rafi, Senior Lead, AMPD, ASTM International Singapore

Role of Standards in Achieving Regulatory Requirements for Additive Manufactured Medical Devices

Mr. Vinod Kumar V, Engineer F, SCTIMST

Additive Manufacturing for Medical Device Development

Dr. Anil Kumar P. R, Scientist F, SCTIMST

3-D Bioprinting for Tissue Engineering and Regeneration Technologies

Dr. Y. Ravi Kumar, Associate Professor, NIT Warangal

3D Printing Solutions in Complex Oral & Maxillofacial Surgeries

PAYMENT DETAILS

(Payment has to be made through online mode, While making payment against the purpose/ add a note, write 3dpsmi)

Account Name: DIRECTOR NIT CALICUT-CONTINUING EDUCATION PROGRAMME

Account No.: 37618269594

Bank: State Bank of India, NIT Calicut Campus

Branch: CREC, Chathamangalam

Branch Code: 002207

IFSC : SBIN0002207

MICR Code: 673002012

SWIFT Code: SBINPNBB392

(The fee remitted once will not be returned normally)

REGISTRATION FEE (Inclusive of all taxes)

Undergraduates (Engineering/Medical): **Rs. 200/-**

Postgraduates & Junior Residents: **Rs. 400/-**

Research Scholars & Senior Residents: **Rs. 600/-**

Faculty Members, Doctors & Medical Professionals: **Rs. 1200/-**

Industrial Participants: **Rs. 2400/-**

International Participants: **USD 50/-**

HOW TO REGISTER?

The participant has to register/submit through the online Google form link, [click here](#)

IMPORTANT DATES

Last date for receiving the online registration form: **10th July, 2021**

Intimation to participants: **14th July, 2021**

Workshop dates: **17th & 18th July, 2021**

(Selection will be based on eligibility, and on First Come First Serve basis as the number of seats are limited)