#### **Preamble**

In the realm of healthcare, the development of bioimplant materials has emerged as a critical area of research, offering innovative solutions to restore functionality and improve the quality of life for individuals in need. One of the key technologies driving this progress is additive manufacturing, also known as 3D printing, which has proven to be a gamechanger in the production of complex and customized medical devices. Bringing together leading experts, researchers, and industry professionals, this workshop offers a unique opportunity to gain insights, exchange knowledge, and foster collaborations in additive manufacturing of bioimplants.





### **Key Themes:**

Advancements in Additive Manufacturing Techniques: Discover the latest innovations in 3D printing, bioprinting, and other additive techniques, and understand their potential in creating complex, patient-specific implants.

Novel Biomaterials for Bioimplant Manufacturing: Learn about the development of biocompatible and bioresorbable materials, including metals, polymers, ceramics, and composites, with tailored properties to enhance functionality and integration.

Characterization and Evaluation of Bioimplants: Gain insights into the characterization techniques and evaluation methodologies employed to assess the performance, safety, and efficacy of bioimplants.

Clinical Applications and Case Studies: Explore successful case studies across orthopedics, dentistry, cardiovascular, and tissue engineering domains, where patient-specific implants have revolutionized treatment outcomes.

Future Perspectives and Challenges: Sessions discussing the emerging trends, regulatory considerations, and ethical implications in this rapidly evolving landscape, paving the way for safe, effective, and accessible bioimplant solutions.

#### **About the Institute**

Nitte (Deemed to be University) has its roots in a group of Institutions established by the Nitte Education Trust. The Trust was established in 1979 by one of India's respected Statesman, Late Justice KS Hegde, Supreme Court Judge and Speaker of Lok Sabha, with the mission of empowering rural youth through quality education and healthcare. The Trust has established 36 institutions spread in three campuses at Nitte, Mangalore and Bangalore. Following a review of Deemed-to-be Universities in 2012, MHRD, placed Nitte DU in Category A. Nitte DU received "A Grade" in its cycle 1 and "A+ Grade" in cycle 2 by NAAC with a CGPA score of 3.11 and 3.40, respectively. In 2017, UGC confirmed its continued recognition of Deemed to be University status. In 2023, it is placed 65th in the Universities category of National Institutional Ranking Framework (NIRF), by MHRD, Govt. of India. The University currently offers 130 programs in disciplines related to health sciences, biological sciences, engineering, business administration, communication studies, and architecture.

N.M.A.M. Institute of Technology was established in 1986. The college is an Off-campus center of Nitte (Deemed to be University) and is recognized by the All-India Council for Technical Education (AICTE), New Delhi. It is accredited by National Assessment & Accreditation Council (NAAC) and all the eligible programs are accredited by National Board of Accreditation (NBA). It is placed in the band 101-150 in the NIRF 2023 ranking.

## **About the Department**

The Department of Mechanical Engineering was started in 1986 with an intake of 40 students. Today the department has an intake of 120 students with a faculty strength of 40. The Department offers an undergraduate program, B.Tech in Mechanical Engineering and a PG program, M Tech in Machine Design. The Department is a recognized research center under Nitte (Deemed to be University). The faculty members are engaged in research activities with sponsored research projects worth more than Rs.1.2 Crores. The department has excellent research outputs in terms of publications, with a total number of 109 publications in the last three years.



Five Day Workshop

# RECENT DEVELOPMENTS IN ADDITIVE MANUFACTURING OF BIOIMPLANT MATERIALS AND ITS PERFORMANCE & APPLICATIONS

July 11 - 15, 2023

Funded by:



(SERB, New Delhi)

Organizing Secretary
Dr. Srinivasa Pai P
Head, Dept. of Mechanical Engineering

Convener Dr. Vijeesh V

Associate Professor, Dept. of Mechanical Engineering



**ORGANIZED BY** 

Department of Mechanical Engineering NMAM Institute of Technology, Nitte - 574 110 Udupi District, Karnataka



## **Participants**

**Category 1:** PG or PhD students pursuing their degree from AICTE approved technical institutions are eligible to apply.

Category 2: Interested faculty, post-doctoral fellow, research associates from AICTE approved technical institutions/ Research organizations/ Research labs/ Industry (both private and govt.) are eligible to apply.

#### **Resource Persons**

Experts from IISc, IIT, NIT, DRDO and Industries.

### **Registration & Selection**

- Maximum attendees:30(first come, first serve basis)
- Online registration form link: https://forms.gle/gM15gjC8CoSLeQ6B9
- Please fill the above Google form with the requested details and upload the scanned copy of Registration form on or before 25<sup>th</sup> June 2023
- The selected candidates will be informed by email on or before 28<sup>th</sup> June 2023
- The selected candidates will have to confirm their participation through a return email on or before 30<sup>th</sup> June 2023
- Certificates will be provided to the participants on maintaining 85 % attendance and clearing a written test conducted on the last day of the workshop
- The participants (Category-1) will be accommodated in Institute hostel rooms as per SERB norms
- The participants (Category-2) will be eligible for TA reimbursement for their journey to the host institute from their hometown/home institute, through shortest possible route (train / bus)
- Category-2 faculty shall be accommodated in guest house on payment basis based on availability

Registration fee: Rs. 500 /-

# **ACCOUNT DETAILS**

Account Name: Nitte Deemed to be University,

<u>Account No.</u>: 110047322915 <u>Bank</u>: Canara Bank, <u>Branch</u>: Nitte; IFSC: CNRB0010115; MICR: 576015041

## **Organizing Committee**

#### **Patron**

Sri N. Vinaya Hegde

President, Nitte Education Trust & Chancellor, Nitte (DU)

## **Advisory committee**

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Pro-Chancellor, Nitte (DU), Mangalore

Sri. Vishal Hegde

Pro-Chancellor (Admin), Nitte (DU), Mangalore

Dr. M S Moodithaya

Vice Chancellor, Nitte (DU), Mangalore

Dr. Harsha Halahalli

Registrar, Nitte (DU), Mangalore

**Dr. Praveen Kumar Shetty** 

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## **Organizing Secretary**

Dr. Srinivasa Pai P

Professor & Head, Mech. Dept., NMAMIT, Nitte

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Vice Principal & COE, NMAMIT, Nitte

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Dean (Admissions), NMAMIT, Nitte



Dr. Narasimha Bailkeri

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Convener:

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Assoc. Professor, Mech. Dept., NMAMIT, Nitte

Coordinator

Mr. Vikas Marakini, Mech Dept., NMAMIT, Nitte

**Members:** 

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Mr. Melwyn R Castelino

Asst. Professor, Mech. Dept., NMAMIT, Nitte

Mr. Krishnaraja Joisa A

Public Relations Officer, NMAMIT, Nitte

# **IMPORTANT DATES**

Last date for registration: 25<sup>th</sup> June 2023 Intimation to participants: 28<sup>th</sup> June 2023

Acknowledgment by participants: 30<sup>th</sup> June 2023

FDP dates: 11<sup>th</sup> to 15<sup>th</sup> July, 2023

# **CONTACT DETAILS**

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