About VIT

Vellore Institute of Technology was founded in 1984 as Vellore Engineering College by Dr. G. Viswanathan, a former Parliamentarian and Minister in the Tamil Nadu government. The Deemed to be University status was conferred on 2001 by MHRD: Govt. of India. VIT was established with the aim of providing quality higher education on par with international standards dedicated to provide excellence in teaching, research and service. Our memorandum of understanding to various international universities are our major strength. It also provides an opportunity for students and faculty exchange programmes with international universities to encourage joint research collaborations for mutual benefit. The campus has a cosmopolitan atmosphere with students from all parts of the globe. Some of the VIT - Ranking and Accreditation credentials are;

• Recognised as Institution of Eminence (IoE) status under private institution category from MHRD.

• Ranked No.1 in Atal Ranking of Institutions on Innovation Achievements (ARIIA-2019) among the private institutions.

• Consistently ranked in Top 20 in NIRF ranking under University and Engineering categories since the inception of NIRF.

• Ranked by Times Higher Education World University Ranking, in the 801-1000 for the last four years.

• Ranked by QS World University Ranking, 801-1000 for the years 2019 & 2020.

• Seven courses at VIT are listed in the Top 500 of the QS World University Ranking by Subject in the year 2021.

• The institution had gone for the first cycle of NAAC accreditation in 2003 soon after becoming the Deemed to be University and second cycle in 2009 and third cycle in 2015. Recently, VIT completed the fourth cycle of accreditation and rated as A++ (highest grade) by NAAC.

• ABET(USA) accreditation for 14 B.Tech Programs in Vellore and Chennai campuses.

• MBA and BBA programs accredited by ACBSP(USA) and ACCA(UK).

Organizing Committee

Chief Patron

Dr. G. Viswanathan Chancellor

Patrons Mr. Sankar Viswanathan Vice president Dr. Sekar Viswanathan Vice President Mr. G. V. Selvam Vice President Ms. Kadhambari S. Viswanathan Assistant Vice President **Dr. Sandhya Pentareddy Executive Director** Dr. Rambabu Kodali Vice Chancellor Dr. S. Narayanan Pro-Vice Chancellor Dr. K. Sathiyanarayanan Registrar

<u>Convenor</u>

Dr. R. Vasudevan Dean, School of Mechanical Engineering, VIT, Vellore.

Co-Convenor

Dr. A. Raja Annamalai Director – CIMR, VIT, Vellore.

<u>Co-ordinator</u> Dr. R.Ramanujam Professor, SMEC, VIT, Vellore.

<u>Co-Coordinator</u>

Dr. M. Arivarasu Associate Professor, CIMR, VIT, Vellore.

Important Date: Last date for Registration: 15-09-2021

Faculty Development Programme

On

ADVANCED MATERIALS PROCESSING AND CHARACTERISATION

20th September 2021 – 24th September 2021

Organized by



School of Mechanical Engineering Vellore Institute of Technology, Vellore

Sponsored by

AICTE, New Delhi



AICTE Teaching and Learning Academy

Through Online Platform

School of Mechanical Engineering (SMEC)

The School of Mechanical Engineering is amongst the premier schools of VIT started functioning right from 1984. The school has got a team of highly qualified faculty members, many holding PhDs from the elite institutes across the globe, to teach and train the best minds of this country. The pride of the school lies in the significant research funding received from several Government agencies such as DST, DRDO, MNRE, CSIR, CVRDE, CPDO, IE, AR&DB, CVRDE, BRNS, ISRO, UGC, NRB, AICTE etc., Memoranda of Understanding (MoUs) with various Industry Research Organisations and leading Universities. The Department of Science and Technology, Govt. of India has recognized the school for its research activities and supported in 2003 and 2010 under FIST scheme. The School has modern facilities, enabling cutting edge research in a wide spectrum of technological areas. The school actively assists local industries in product design, complex-part manufacturing and Computational Fluid Dynamics. The courses offered cater to the needs of Aerospace, Defence, Manufacturing, Energy and Automotive industries. This has enabled the students to pursue higher studies in leading Universities in India and abroad.

Three of the Bachelor Degree Programmes offered by the School, B. Tech. Mechanical Engineering, B.Tech. Mechanical with Specialisation in Automotive Engineering and B.Tech. Mechanical with Specialisation in Energy Engineering are accredited by the Engineering Accreditation Commission of ABET-USA. Engineering and Technology are ranked within the top 10 in India and top 401-450 in the world as per QS World University Rankings by Subject 2021.Mechanical and Manufacturing Engineering are ranked within the top 11 in India and top 351-400 in the world as per QS World University Rankings by Subject 2021. In the Engineering and Technology "Mechanical Engineering" Specialisations are ranked within top 501-600 in the world as per THE World University Ranking by Subject 2021.

Centre for Innovative Manufacturing Research (CIMR)

The Centre for Innovative Manufacturing Research (CIMR) at VIT, Vellore was established in 2017 to advance knowledge and nurture technically-grounded leaders and innovators to serve societal needs, with a focus on sustainable manufacturing, through an integrated multidisciplinary research, collaboration between different industries, competitors, vendors and customers at solving tough commercial problems. This research centre works on cutting edge technologies in manufacturing, includes additive manufacturing, Smart Materials, Industry 4.0, nontraditional material removal processes, sustainable manufacturing, condition monitoring of machine tools and advanced material processing. The faculty members of CIMR are actively involved in executing a number of R&D projects from government agencies including DST, AR&DB, ISRO, UGC, BNRS and various consultancy projects from industries. The centre has the strong collaboration with various foreign universities across the globe.

ABOUT THE COURSE

This course will give the audience a rigorous, advanced foundation in advanced materials processing and characterization. The topics includes,

- Introduction to Advanced Materials
- Additive Manufacturing Capabilities
- Lasers in Manufacturing
- Advances in Metal Forming
- Machining Macro, Micro, Nano
- Processing of Composites
- Sustainable Machining
- Surface Engineering
- Coatings and Surface Modification
- High Temperature Materials
- Smart Materials
- Material Characterization Techniques
- Advanced Materials Testing Methods
- Art of Living: Work-Life balance.

Resource Persons

Faculty members from IITs, NITs, VIT and reputed Industry and R&D Labs will be conducting the theory and practical sessions in the FDP.

Who can attend?

The Faculty members, Research Scholars and PG Students from AICTE approved institution, Industry professionals and scientists from R&D Labs are eligible to attend the FDP. There is no Registration fee to attend this FDP.

Course duration

14 Online sessions in 5 days (20th September 2021 – 24th September 2021) Total: 25 Hours

Selection and Certification Criteria

Participants should have basic knowledge on Mechanical engineering. Selection will be based on first-come, firstserve basis. Maximum 200 participants will be allowed to attend the online FDP. The selected candidates will be notified through email. On completion of the programme, participants will be awarded an E-Certificate of participation by respective ATAL Academy. Minimum 80% attendance and 60% marks in the test are compulsory for certification.

How to Apply?

The participant has to register through ATAL Portal (https://atalacademy.aicte-india.org/login)

Workshop ID: **1614577963**

For Details Contact:

Dr. R. Ramanujam

Professor, SMEC, Vellore Institute of Technology (VIT), Vellore - 632014. Tamilnadu, India. Mail Id: ramanujam.r@vit.ac.in Phone: 9444129857, 0416-2202207.