

**Who can attend?** Scientists, faculty members, PhD students undergraduate and graduate students from any discipline with interests in materials processing, characterisation and surface engineering.

**Registration: Use the link below**

<https://events.vit.ac.in/>

**For further details contact**

**Email** : [arivarasu.m@vit.ac.in](mailto:arivarasu.m@vit.ac.in)

**Mobile** : +91-9488982584

**Registration fee:**

|                           |   |
|---------------------------|---|
| Industry participants     | : INR 2000/-                                  |
| External Faculty          | : INR 1000/-                                  |
| External students         | : INR 500/-                                   |
| Internal VIT Participants | : Free (Limited seats Max of 30 participants) |

**The registration fee includes working lunch, and morning and evening refreshments.**

**Last date for registration on or before 31.10.22**

## Organizing Committee

### Patron

**Dr G Viswanathan**

*Chancellor, VIT*

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**Dr Raja Annamalai**

*Professor & Director CIMR*

**Dr K Devendranath Ramkumar**

*Professor & Dean, SMEC*

### Organizers

**Dr. Arivarasu M**

**Dr. Arivazhagan N**

**Dr. Nageswara Rao M**



**VIT**<sup>®</sup>  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)



**RZESZOW UNIVERSITY  
OF TECHNOLOGY**

**One day Indo-Polish Bilateral  
Workshop**

*On*

**Aerospace materials technologies —  
casting methods, mechanical and hot  
corrosion behaviour and functional  
coatings**

**02<sup>nd</sup> November 2022**

**Venue**

**Rajaji Hall (MGR Block)**

**Organized by**

**Centre for Innovative Manufacturing  
Research (CIMR)**

**&**

**School of Mechanical Engineering (SMEC)  
VIT, Vellore, TN**

## Speakers

### Dr Andrzej Nowotnik

Professor,  
Research & Development Laboratory for Aerospace Materials  
Rzeszow University of Technology, Poland

### Dr Grazyna Mrowka

Professor,  
Research & Development Laboratory for Aerospace Materials  
Rzeszow University of Technology, Poland

### Dr Damian Nabel

Assistant Professor,  
Research & Development Laboratory for Aerospace Materials  
,Rzeszow University of Technology, Poland

### Dr Nageswara Rao M

Senior Professor,  
Department of Manufacturing,  
School of Mechanical Engineering,  
Vellore Institute of Technology, Vellore

## Topics to be covered

- Development of casting processes suitable for series production and also for lab-scale production of directional, equiaxial and single crystal castings
- Mechanical properties of structural materials, metal alloys, ceramic and composite materials, with particular emphasis on materials used in the aviation industry
- Development of High temperature and Functional Coatings
- Hot corrosion of superalloys - A retrospect

### About Vellore Institute of Technology

Founded in 1984 as Vellore Engineering College, the institute was declared a University in recognition of its academic excellence by the Ministry of Human Resources Development, Government of India in 2001. The University has since grown by leaps and bounds – establishing excellent infrastructure replete with state-of-art laboratories, digital library, smart classrooms, hostels, gyms, swimming pools, auditoria, in-door and out-door stadiums spread over an impeccably clean and green 350-acre campus – on way to fulfil the

vision of the founder and chancellor Dr G. Viswanathan to make it truly world-class.

VIT today comprises ten constituent schools and interdisciplinary research centres offering undergraduate, postgraduate and research programmes in various disciplines. The University was recently reaccredited for the third cycle by NAAC (UGC) and Ranked No.1 Private Engineering Institution by MHRD, Govt. of India. VIT has signed a Memorandum of Understanding with many institutions within India and abroad including Australia, Canada, France, Germany, UK and USA. Such understanding is aimed towards an exchange of faculty and students, joint academic programmes involving courses as well as research and improvement of laboratory and library facilities. The University offers 20 Undergraduate, 34 Postgraduate, 4 Integrated programmes and 4 Research programmes.

### About CIMR

CIMR was established to advance knowledge and nurture technically-grounded leaders and innovators to serve societal needs, with a focus on sustainable manufacturing, through integrated multi-disciplinary research, and collaboration between different industries, competitors, vendors and customers to solving tough commercial problems. The primary focus of CIMR is to train the faculty and students in developing and making systemically complex, technologically intensive, and socially impactful solutions that are functional, aesthetic, usable and sustainable. It is also focused to strengthen the research at VIT by adding value, effecting knowledge transfer, generating intellectual property, and raising new technologies through innovative manufacturing research. CIMR pursues excellence in research and industry interaction and leads the successful amalgamation of research in the areas of advanced manufacturing technologies such as additive manufacturing, machine tools technology, precision engineering, non-traditional 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 a strong collaboration with various foreign universities across the globe.

### About SMEC

The School of Mechanical Engineering is amongst the premier schools of VIT and started functioning right from its inception in 1984. The school has got a team of highly qualified faculty members, many holding PhDs from 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 the 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 to cater to the needs of the Aerospace, Defense, Manufacturing, Energy and Automotive industries. This has enabled the students to pursue higher studies in leading Universities in India and abroad. Mechanical and Manufacturing Engineering are ranked within the top 9 in India and top 301-350 in the world as per QS World University Rankings by Subject 2022. In Engineering and Technology, "Mechanical Engineering" Specialisations are ranked within top 501-600 in the world as per THE World University Ranking by Subject 2021.

### Rzeszow University of Technology, Poland

Rzeszow University of Technology's history dates from 1951, when the Engineering School was opened following the initiative of the employees of Rzeszow PZL factory, organised into the Association of Polish Engineers and Technicians. Mechanical engineers were educated in evening classes to support operations at PZL, a communications equipment maker. In 1960, full-time studies were commenced, with local staff assuming responsibility from its overseer for instruction, administration and operations throughout the decade. During this time, the school blossomed into the Higher Engineering School of Technology and Mechanical Engineering and expanded its range of subjects with the addition of Faculties of Chemical Technology, Civil and Environmental, and Electrical Engineering. In 1972 a significant event in the development of the University took place, as the Department of Aeronautics was founded and the instruction of personnel for the aviation industry began in earnest. As a result, in 1976 Aviation Training Centre was established with the aim of providing future pilots with practical training. In the current term the University has an enrolment of 17 000 students at 6 faculties and 24 courses of study. Three faculties: the Faculty of Civil and Environmental Engineering, the Faculty of Mechanical Engineering and Aeronautics and the Faculty of Electrical and Computer Engineering have the right to confer a university degree of PhD in Technology, and the Faculty of Chemistry PhD in Chemistry. The Faculty of Mechanical Engineering and Aeronautics, the Faculty of Electrical and Computer Engineering and the Faculty of Civil and Environmental Engineering have the right to confer a university degree of DSc. The Faculty of Mechanical Engineering and Aeronautics, as the only one in Poland, has been training civil aviation pilots since 1976. Pilots receive an MSc in Aeronautical Engineering and a 2nd Class (CPL) pilot's licence. Their training meets European requirements for receiving an airline pilot licence (ATPL), and is conducted at Jasionka (aviation) and Bezmiechowa (gliders).