

## ABOUT THE INSTITUTION

Sri Sivasubramaniya Nadar College of Engineering (SSNCE), founded by Padma Bhushan Dr. Shiv Nadar, Chairman, HCL Technologies, stands out as a premier center of higher learning with a mission of pursuing excellence in education and research. The institution, with its diverse and dynamic community of students offers a distinctive combination of some of the finest graduate, undergraduate and research programs, accomplished faculty, world class facilities and a residential campus set on a sprawling 230 acres of sylvan surroundings. SSNCE is a home to aesthetically designed buildings with state of the art computer and internet facilities, modern workshops, seminar halls, auditoriums and well stocked libraries, sports and games fields in addition to an indoor stadium with gymnasium. SSNCE has faculty strength of 254 with a faculty student ratio of 1 faculty for every 15 students. Out of the total, 237 faculties are Ph.Ds. and 17 are pursuing their Ph.D. SSNCE has been ranked 12<sup>th</sup> among all the private engineering colleges in the country and ranked 48<sup>th</sup> among all the engineering colleges and 96<sup>th</sup> among all the educational institutions in the NIRF (2022), instituted by the MHRD, Government of India.

### CONVENERS

Dr. K. Babu  
Dr. R. Damodaram  
Dr. S. Santosh  
Dr. V. K. Anirudh

### WEBSITE:

<https://sites.google.com/ssn.edu.in/icppm2023>

### ABSTRACT SUBMISSION: [shorturl.at/wCMV8](http://shorturl.at/wCMV8)

### CO-CONVENERS

Dr. M. Dhananchezian  
Dr. K. Jayakumar  
Dr. R. Rajeswari  
Dr. Divya Zindani

### CONTACT DETAILS

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## ABOUT THE DEPARTMENT

The department of Mechanical Engineering was established in the year 2007. The department offers B.E (Mechanical Engineering) from the academic year 2007 – 2008, M.E (Manufacturing Engineering) from the academic year 2012 – 2013 and M.E (Energy Engineering) from the academic year 2013 – 2014. The department became an approved research centre of Anna University in the year 2012. Ever since, 53 students have successfully completed their Ph.D. and currently 119 students are pursuing Ph.D. The UG program of the department has been accredited by the prestigious National Board of Accreditation (NBA). The department has research projects funded by Department of Science and Technology (DST), All India Council for Technical Education (AICTE), Science and Engineering Research Board (SERB) and Naval Research Board (NRB) to the tune of around Rs.4.5 Crores for conducting research in Friction Stir Welding, Magnetic Moulding of Composite Materials, Vibration Studies, Robotics, Abrasive Reclamation and Finite Element Analysis of Composites. The department is also actively involved in consultancy projects worth over 30 lakhs from industries. The department has an active AICTE sponsored Industry Institute Partnership Cell (IIPC) to carry out healthy institute-industry interactions at various levels.

# ssn

Proudly  
Presents



International Conference on Processing and Performance of Materials  
(ICPPM – 23)

2<sup>nd</sup> & 3<sup>rd</sup>, March - 2023

Organized by Department of  
Mechanical Engineering



*engineering  
proceedings*

Publications in  
Engineering Proceedings,  
MDPI

## ABOUT THE CONFERENCE

This is the second edition of the conference in the theme of materials, their processing and performance hosted by the Department of Mechanical Engineering, SSN College of Engineering. The first edition, ICPCM 2022 was a remarkable success with close to 300 registrations received and over 100 full length papers submitted to Materials Today: Proceedings.

Materials have defined the evolution of human civilization. All engineers are indirectly involved with materials, their processing and performance on a daily basis. Choosing an appropriate material for an application is crucial and a number of important decisions depend on whether the materials can hold the correct shape and size during use. With new age materials, it is all about optimally combining different materials like lightweight materials, smart materials, shape memory alloys, carbon fibres, polymers etc., in an effort to add value to the machines they make. But what makes these materials is the intricate technology used to manufacture it. This conference aims to bridge the knowledge gap between different manufacturing processes, the value they add to the material, and why it is necessary. Further, to aid participants get an opportunity to listen to, learn from and interact with renown speakers and fellow researchers, this conference is being held in a physical mode.



## CALL FOR PAPERS

Original contributions based on the results of research and development from various engineering fields are solicited for presentation on the topics listed below, but not limited to:

### PROCESSING OF MATERIALS

Additive Manufacturing  
Advances in Manufacturing of Metals,  
Ceramics and Metal Matrix Composites  
CAM/CIM  
Casting and Forming Technology  
Composites and Polymer Processing  
Conventional and Unconventional Machining  
Green and Sustainable Manufacturing  
High Speed Machining  
Hybrid Manufacturing  
Industrial Automation and Industry 4.0  
Micro-nano Manufacturing  
Materials Joining and Forming Processes  
Powder Metallurgy Processing  
Precision Manufacturing  
Robotics and AI in Manufacturing

### PERFORMANCE OF MATERIALS

CAD/CAE/CAPP  
Corrosion and Erosion  
Materials Characterization  
Microstructure, Plasticity and Testing  
Mechanical Behaviour and Fracture  
Nano Materials  
New Energy Materials  
Non-Destructive Testing  
Measurement and Metrology  
Modelling and Simulation  
Optimization Algorithms  
Smart and Biomaterials  
Surface Engineering and Coatings  
Tribology and Wear

**Best papers from each session will be given a certificate.**

**The overall best paper from each category will get a certificate and a cash award.**

**Only presented papers will be recommended for publication.**

## KEYNOTE SPEAKERS



**Dr. Swee Leong Sing,**  
Assistant Professor,  
National University  
of Singapore



**Dr. M. Vasudevan,**  
Associate Director,  
IGCAR



**Dr. G Phanikumar,**  
Professor,  
IIT Madras



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

## CHIEF PATRON:

Dr. Shiv Nadar,  
Founder and chairman of HCL Technologies Ltd., Founder of Shiv Nadar Foundation

## PATRONS:

Dr. Kala Vijaykumar, President – SSN Institutions  
Dr. V. E. Annamalai, Principal – SSNCE  
Dr. S. Radha, Vice-Principal – SSNCE

## GENERAL Co-CHAIRS:

Dr. P. Ramasamy, Dean (Research) – SSNCE  
Dr. K. S. Vijay Sekar, Professor and HoD, Mechanical Engineering, SSNCE

## ADVISORY COMMITTEE

### International

Dr. Haizea Gonzalex-Barrio, University of the Basque Country, Spain  
Dr. J. Paulo Davim, University of Aveiro, Portugal  
Dr. Luis Norberto Lopez De Lacalle, University of Basque Country, Spain  
Dr. Manoj Gupta, NUS Singapore  
Dr. Swee Leong Sing, NUS Singapore  
Dr. Mediha Kok, FIRAT University, Turkey  
Dr. Murali Sundaram, University of Cincinnati, USA  
Mr. Prasanna Kumar, SMATech, Belgium  
Dr. Ramana V. Grandhi, Wright State University, USA  
Dr. S. Parasuram, Monash University, Malaysia  
Dr. Soumya Sridar, University of Pittsburgh  
Dr. T.V.R.L. Sravya, Max-Planck Institute Germany  
Dr. V. Selvakumar, Nizwa College of Technology, Oman  
Dr Chithirai Pon Selvan, Curtin University, Dubai  
Mr. Ravi Ravishankar, CIO/VP, Jabil, USA.

### National:

Dr. M. Vasudevan, IGCAR  
Dr. S. Aravindan, IIT Delhi  
Dr. N. V. Ravikumar, IIT Madras  
Dr. G. Phanikumar, IIT Madras  
Dr. V. Sampath, IIT Madras  
Dr. I.A. Palani, IIT Indore  
Dr. N. Chawake, IIT Kanpur  
Dr. P. Ramkumar, IIT Madras  
Dr. K. Jayabal, IIITDM Kanchipuram  
Dr. V. Anandakrishnan, NIT Trichy  
Dr. N. Gnanasekaran, NIT Surathkal  
Dr. K. Sekar, NIT Calicut  
Dr. Sumit Bhowmik, NIT Silchar  
Dr. Jagadish, NIT Raipur  
Dr. Pradeep Kumar, Anna University, Chennai  
Dr. K. Balachandar, SASTRA, Thanjavur  
Dr. Surya Prakash, IIHMR University, Jaipur

## REGISTRATION

### REGISTRATION FEES

Category	Registration Fees
Conference only	Rs. 2000/- Includes presentation, conference proceedings, lunch and refreshments
Paper Publication	Rs. 4000/-
Foreign nationals	100 USD

### IMPORTANT DATES

<b>Abstract Submission:</b>	<b>20/02/23</b>
<b>Acceptance Notification</b>	<b>23/02/23</b>
<b>Full Paper Due</b>	<b>20/03/23</b>
<b>Last Date for Registration</b>	<b>25/02/23</b>

At least one registration per paper is mandatory for presenting the paper in the conference and only presented papers will be recommended for publication in the journal. The registration fee is to be paid through Demand Draft (DD)/ online transfer. Please refer to the conference website for more details about registration and paper formats. The details of online transfer along with registration form should be mailed to “The Convener - ICPPM 2023” at icppm@ssn.edu.in on or before 26.02.2023.