

One Day Symposium On

“SHOCK WAVES IN SCIENCE, ENGINEERING AND MEDICINE”

29th February, 2020



Jointly organized by

**Indian Institute of Information Technology
Design and Manufacturing
(IIITDM Kancheepuram)
Chennai - 600127**

&

**Aeronautics Research and Development Board
DRDO, Ministry of Defence,
Govt. of India**

Organizer:

**Dr. M. Raguraman
Faculty of Mechanical Engineering**

About the Institute

Indian Institute of Information Technology, Design and Manufacturing (IIITDM Kancheepuram) was established in 2007 by MHRD, Government of India. The Institute has been awarded the status of Institute of National Importance (INI) with a mandate of design and manufacturing oriented engineering education and research to uplift the competitive advantage of Indian products in global markets. The institute is currently offering several B.Tech, M.Tech, Dual Degree (B.Tech + M.Tech) and PhD degree programmes in Computer Engineering, Electronics and Communication Engineering and Mechanical Engineering with specializations in product design and smart manufacturing.

About the Department

Department of Mechanical Engineering is playing a pivotal role for meeting the institute's vision through top-notch teaching and research contributions. Faculty members of this department are extensively involved in the sponsored research and industrial consultancies. Faculties are specialized in polymers and composites, smart materials, optimization, robotics and automation, IoT, additive manufacturing, smart manufacturing, design innovation, conceptualization, thermal measurements, cooling of electronic products and battery technologies.

Symposium Objectives

The shock waves (SW) are strong perturbations aerodynamics that propagate at supersonic speed independent of the wave amplitude. Such disturbances occur in steady transonic and supersonic flow, during explosions, lightning strokes, and contact surfaces in laboratory devices. Physically the propagation of SW in any media is invariably associated with instantaneous increase in pressure and temperature behind the shock wave. The capability of SW to generate non-linear pressure and temperature spikes in the medium of propagation finds very interesting applications in a variety of areas such as medicine, biological sciences, material processing, manufacturing, and microelectronic industries.

The objective of this symposium is to create a platform for teachers and students with Physics, Chemistry/ Engineering/ Biology/ Medicine background to learn, understand, and to get their doubts about SW cleared from expert scientists from University of Glasgow, UK and Indian Institute of Science, Bangalore.

Who Can Attend

Industry delegates, faculty, research scholars, undergraduate and post-graduate students from Science, Engineering and Medical streams, specifically from Physics, Chemistry, Aerospace and Mechanical Engineering and other engineering disciplines can participate in this symposium.

Topics & Speakers

Topic 1: Shockwaves: Introduction and Application in medicine

Speaker: Prof. G. Jagadeesh
Department of Aerospace Engineering
Indian Institute of Science, Bengaluru

Topic 2: Shockwaves in Engineering

Speaker: Prof. Konstantinos Kontis
University of Glasgow
United Kingdom

Topic 3: Making Shockwaves Pay

Speaker: Prof. K.P.J. Reddy
Department of Aerospace Engineering
Indian Institute of Science, Bengaluru

Topic 4: Shockwaves & Chemical Kinetics

Speaker: Prof. E. Arunan
Department of Inorganic and Physical
Chemistry
Indian Institute of Science, Bengaluru

Topic 5: Shockwaves & Impact Simulation

Speaker: Dr. M. Raguraman
Department of Mechanical Engineering
IIITDM Kancheepuram

Registration Details

Faculty/Industry participants – Rs. 1500/-*
Students/Research Scholars – Rs. 750/-*
*including GST

Kindly register here: <http://shorturl.at/tESU2>



Payment Method

Please use the following link to pay registration fee
<https://www.onlinesbi.com/sbcollect/>

State of Institution: **Tamilnadu**
Type of Institution: **Educational Institutions**
Educational Institutions Name:
IIITDM–Educational Events
Category: **SW2020**

Important Dates & Venue

Last date to apply:
21st February, 2020

Intimation of Selection by email:
24th February, 2020

Event Date:
29th February, 2020

Address for Correspondence

Dr. M. Raguraman
Department of Mechanical Engineering
IIITDM Kancheepuram, Chennai- 600127
Email: raguraman.munusamy@iiitdm.ac.in;
Ph: 93841 42291

How to reach venue

Senate Hall, IIITDM Kancheepuram

Please follow the link below to reach the venue:
<https://www.iiitdm.ac.in/Others/map.php>