One Day Symposium
On
“SHOCK WAVES IN
SCIENCE, ENGINEERING
AND MEDICINE”
29th February, 2020

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.

Symposium Objectives

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

The objective of this symposium is to create a platform for teachers and students with Physic Chemistry/ Engineering/ Biology/ Medicine background to learn, understand, and to get the 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.

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.

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
<table>
<thead>
<tr>
<th>Topics &amp; Speakers</th>
<th>Registration Details</th>
<th>Address for Correspondence</th>
</tr>
</thead>
</table>
| **Topic 1:** Shockwaves: Introduction and Application in medicine  
_Speaker:_ Prof. G. Jagadeesh  
Department of Aerospace Engineering  
Indian Institute of Science, Bengaluru | Faculty/Industry participants – Rs. 1500/-*  
Students/Research Scholars – Rs. 750/-*  
*including GST  
Kindly register here: [http://shorturl.at/tESU2](http://shorturl.at/tESU2) | Dr. M. Raguraman  
Department of Mechanical Engineering  
IIITDM Kancheepuram, Chennai- 600127  
Email: raguraman.munusamy@iiitdm.ac.in; Ph: 93841 42291 |
| **Topic 2:** Shockwaves in Engineering  
_Speaker:_ Prof. Konstantinos Kontis  
University of Glasgow  
United Kingdom | | How to reach venue  
Senate Hall, IIITDM Kancheepuram |
| **Topic 3:** Making Shockwaves Pay  
_Speaker:_ Prof. K.P.J. Reddy  
Department of Aerospace Engineering  
Indian Institute of Science, Bengaluru | Payment Method  
Please use the following link to pay registration fee  
[https://www.onlinesbi.com/sbicollect/](https://www.onlinesbi.com/sbicollect/)  
State of Institution: Tamilnadu  
Type of Institution: Educational Institutions  
Educational Institutions Name: IIITDM–Educational Events  
Category: SW2020 | |
| **Topic 4:** Shockwaves & Chemical Kinetics  
_Speaker:_ Prof. E. Arunan  
Department of Inorganic and Physical Chemistry  
Indian Institute of Science, Bengaluru | Important Dates & Venue  
Last date to apply: 21<sup>st</sup> February, 2020  
Intimation of Selection by email: 24<sup>th</sup> February, 2020  
Event Date: 29<sup>th</sup> February, 2020 | |
| **Topic 5:** Shockwaves & Impact Simulation  
_Speaker:_ Dr. M. Raguraman  
Department of Mechanical Engineering  
IIITDM Kancheepuram | |

*including GST