

# COPEN 10 2017

**ANNOUNCEMENT and CALL FOR PAPERS**



## **10<sup>th</sup> International Conference on Precision, Meso, Micro and Nano Engineering December 07 - 09, 2017**



**Organized by  
Manufacturing Engineering Section  
Department of Mechanical Engineering  
Indian Institute of Technology Madras  
Chennai - 600 036, INDIA  
Website: [www.iitm.ac.in](http://www.iitm.ac.in)**

**<http://web.iitm.ac.in/copen2017>**

# COPEN 10

## 2017

The Conference on Precision Engineering (COPEN) was spearheaded by IIT Madras in 2000 to bring the academicians, researchers and practicing engineers together for sharing their experiences in the field of precision engineering. It has gained wide acclaim over the years and reached an international status in 2006. The tenth international conference is being organized by IIT Madras during December 7-9, 2017.

It is well recognized that new products and technology developments in the area of strategic, automotive, aerospace, electronics, and bio-medical industries having complex and miniaturized features on products, are realized by precision manufacturing and quality control through advanced manufacturing and metrology. Ever increasing demand for miniaturized meso/micro devices need advanced materials and advanced technologies. In order to address these demands, precision micro and nano engineering is emerging as a challenging area in recent years. It is envisioned that such activities will not only facilitate the exponential growth of the global economy, but also will aid in scientific understanding of this area at a fundamental level.

The objective of the conference is to provide a common platform for specialists working in precision, meso, micro and nano engineering industries, academic institutions as well as R&D organizations to come together for intense interaction and exchange of their ideas. The conference also aims at networking of participating institutes/organizations/industries to systematically confront challenges in areas of mutual interest to advance manufacturing technology in this exciting area. The COPEN conference continues to be a platform where manufacturers, researchers and academia assemble together to share the pace of innovations in this emerging field of manufacturing.

### Topics

#### A). Precision Manufacturing

- ❖ Precision machining and forming
- ❖ Precision casting
- ❖ Assembly processes
- ❖ Characterization of functional surfaces and sub-surfaces
- ❖ Applications in aerospace manufacturing

#### B). Multi – Scale Manufacturing

- ❖ Micro machining and forming
- ❖ Micro scale assembly & systems
- ❖ MEMS/MOEMS
- ❖ Nano machining and polishing
- ❖ Nano scale energy beams & processing
- ❖ Chemical and electrolyte processing at nano scale
- ❖ Micro/Nano metrology

#### C). New Materials & Processing

- ❖ Composites and inter-metallics
- ❖ Ceramics
- ❖ Polymers
- ❖ Ultra strength alloys
- ❖ Materials for aerospace applications

#### D). Emerging Manufacturing Techniques

- ❖ Additive manufacturing
- ❖ Manufacturing applications in Biotechnology and Biomedical
- ❖ Micro/Nano metrology
- ❖ Green & sustainable manufacturing on Micro/Nano scale

## Important Dates

Abstract submission	: May 31, 2017
Intimation of abstract acceptance	: June 30, 2017
Submission of full paper	: August 31, 2017

### **Registration fees:**

### **Early Bird**

**before 31 August, 2017**

Delegates: Abroad	: US\$ 500	400
Delegates: Industry (in India)	: Rs. 6000	5000
Delegates: Academia (in India)	: Rs. 4000	3500
Student delegates from abroad	: US\$ 250	200
Indian Student Delegates	: Rs. 2000	1500

The fee includes attendance for all technical sessions, lunch, tea and conference dinner. It is limited to a maximum of 2 papers per registration. Registration fee should be paid through Demand Draft drawn in favor of COPEN 2017, payable at Chennai or remit the registration fee through the bank transfer, to be credited to Account Name: COPEN2017 Manufacturing Engineering Section, Account Number: 36187209446, State Bank of India, IIT Madras Branch, IIT Campus, Chennai 600036, India, IFSC Code: SBIN0001055, SWIFT Code: SBININBB453.

**Sponsorship** for the COPEN 2017 are invited and the details will be made available on the website. Appropriate publicity will be made during the period of the conference for the sponsors.

**Accommodation:** Limited accommodation is available in the campus (Guest House and Hostels). Further information regarding the accommodation in the city of Chennai will be made available on the website.

### **Executive Committee**

Patron : **Bhaskar Ramamurthi**, Director, IIT Madras

Chairman: **N Ramesh Babu**, Dept.of Mechanical Engineering, IIT Madras

Secretary: **G. L. Samuel**, Dept. of Mechanical Engineering, IIT Madras

Treasurer: **S.K. Panigrahi**, Dept. of Mechanical Engineering, IIT Madras

### **Contact (for further details):**

**G. L. Samuel, Secretary, COPEN 2017**

Manufacturing Engineering Section, Department of Mechanical Engineering

Indian Institute of Technology Madras, Chennai – 600 036, INDIA

Telephone: +91-44-2257 5705, Fax: +91-44-2257 4652

Email: [copen2017@wmail.iitm.ac.in](mailto:copen2017@wmail.iitm.ac.in), Website: <http://web.iitm.ac.in/copen2017>

## Advisory Committee Members:

V. Radhakrishnan, Former Professor, IIT Madras and IIST Trivandrum, India  
Amitabha Ghosh, Former Director, IIT Kharagpur, India  
B. B. Ahuja, Director, CoE, Pune, India  
R. Balasubramaniam, Head, PMS-PED, BARC, Mumbai, India  
B. Bhattacharya, Professor, Jadavpur University, Kolkata, India  
S. K. Choudhury, Professor, IIT Kanpur, India  
Debanik Roy, Scientist, BRNS, Mumbai, India  
U. S. Dixit, Professor, IIT Guwahati, India  
V. K. Jain, Professor Emeritus, IIT Kanpur, India  
Jay Raja, Senior Associate Provost, UNCC, Charlotte, USA,  
S. S. Joshi, Professor, IIT Bombay, India  
Krishna Prasad, Professor, NIT Surathkal, India  
G. K. Lal, Former Professor, IIT Kanpur, India  
P. V. Mohan Ram, Principal, PSG Tech & Appl. Research, Coimbatore, India  
Prakash Brahmkar, Professor, BATU, Lonere, India  
D. R. Prasada Raju, Former Advisor DST, New Delhi, India  
Philip Koshy, Professor, McMaster University, Canada  
P. Radhakrishnan, Director, PSG Inst. of Advanced Studies, Coimbatore, India  
Rahman Mustafizur, Professor, NUS, Singapore  
K. P. Rajurkar, Professor, University of Nebraska-Lincoln, USA  
J. Ramkumar, Professor, IIT Kanpur, India  
N. Ramaswamy, Former Professor, IIT Bombay, India  
N. Ramesh Babu, Professor, IIT Madras, India  
M. S. Shunmugam, Professor Emeritus, IIT Madras, India  
N. Ramakrishnan, Professor Emeritus, IIT Gandhi Nagar, India  
Ramesh Singh, Associate Professor, IIT Bombay, India  
P. V. Rao, Professor, IIT Delhi, India  
P.V.M. Rao, Professor, IIT Delhi, India  
N. V. Reddy, Professor, IIT Hyderabad, India  
P. V. Shashikumar, Former Director, CMTI Bangalore, India  
Shiv Gopal Kapoor, Professor, Univ. of Illinois Urbana-Champaign, USA  
Shreyes Melkote, Professor, Georgia Institute of Tech., Atlanta, USA  
M. Singaperumal, Professor Emeritus, IIT Madras, India  
G. L. Samuel, Associate Professor, IIT Madras, India  
V. K. Suri, Former Head, PED, BARC, Mumbai, India  
N. J. Vasa, Professor, IIT Madras, India  
Jose Mathew, Professor, NIT Calicut, India  
Murali Sundaram, Professor, University of Cincinnati, Cincinnati, USA