

NATIONAL CONFERENCE ON EMERGING TRENDS AND CHALLENGES IN MICRO / NANO ELECTRO MECHANICAL SYSTEMS AND SMART MATERIALS (ETCMEMSS 2018)

November 12-13, 2018

# **Registration Form**

Name	:
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Amount /D.D. No.	:
Date of Remittance	:
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Signature of Signature of the head the candidate of the institution (with seal )

#### **GUIDELINES FOR SUBMISSION**

The selected paper should be in standard two columns IEEE format, limited to a maximum of 5 pages, including figures and tables.

# **Important Dates**

Submission of Full Paper :15-10-2018
Acceptance Notification :20-10-2018
Submission of Camera Ready paper :25-10-2018
Conference registration :27-10-2018

## **Registration Fee**

Delegates from Industries : Rs.2000/-Faculty : Rs.1500/-Research Scholars : Rs.1000/-UG / PG Students : Rs.500/-

DD should be drawn in favour of "The Registrar, Annamalai University", Payable at Annamalainagar.

# **Address for Communication**

Co-ordinators

# Dr. P. Shanmugaraja & Dr. M. Manivannan

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# NPMass Mems design centre

**Department of Electronics and Instrumentation Engineering** 

Faculty of Engineering and Technology

Annamalai University
Annamalainagar - 608002.

# NATIONAL CONFERENCE ON EMERGING TRENDS AND CHALLENGES IN MICRO / NANO ELECTRO MECHANICAL SYSTEMS AND SMART MATERIALS (ETCMEMSS 2018)

# **ABOUT THE UNIVERSITY**

In the early 1920s, Rajah Sir S.R.M. Annamalai Chettiar founded Sri Minakshi College, Sri Minakshi Tamil College and Sri Minakshi Sanskrit College at Chidambaram. In 1928, Rajah Sir S.R.M. Annamalai Chettiar agreed with the local Government to handover the above-said institution for establishing a University, Thus, on 01.01.1929 Annamalai University was established as per Annamalai University Act 1928 (Tamil Nadu Act 1 of 1929).One of the most significant developments is theenactment of the Annamalai University Act, 2013 (TamilNadu Act 20 of 2013), which has come into force from September 25, 2013. Annamalai University is accredited with 'A' Grade by NAAC in 2014. "The NIRF-2018" by the Ministry of Human Resource Development (MHRD) has ranked the University in the band 101 - 150 in the overall category as well as the University Category. In the Pharmacy Category, the ranking is 20th in India. In the Medical Category, the ranking is 24th. "The Times Higher Education World University Ranking - 2018" has ranked Annamalai University in 801 - 1000 for Overall category and 401 - 500 for Life Sciences category. "The CWTS Leiden Ranking 2017", on scientific impact of universities and on universities' involvement in scientific collaboration & scientific performance, has ranked the University at 14th based on the number of publications and 3rd based on the proportion of publications that, compared with other publications in the same field and in the same year, belong to the top 10% most frequently cited. "The Nielsen-India Today Ranking" (2017) has ranked Annamalai University 11th among the top 30 Universities in India. Among the top 100 institutions for Higher Education in India the "SCImago Institutional Ranking" has ranked Annamalai University as 4th in Tamil Nadu and 20th in India. Annamalai University is one of the largest unitary, teaching and residential universities in Southern Asia comprising 10 Faculties and 49 departments of study. This University has played a pivotal role in providing access to higher education to thousands of youth cutting across the social spectrum. especially from economically and socially disadvantaged classes. In this respect, this University's service to the nation is tremendous.

## ABOUT THE DEPARTMENT

The Department of Electronics & Instrumentation Engineering established in 1988 is one among the nine departments under the Faculty of Engineering and Technology, which celebrated its Diamond Jubilee in 2005. This Department offers B.E (Electronics & Instrumentation Engg.), M.E (Process Control &Instrumentation), M.E (Rehabilitative Instrumentation), M.E.(MEMS) and Doctoral Programs. Research work is carried out in emerging areas such as Advanced Process Control, Control of Power Electronic Converters and Drives, Embedded Control, Fault Diagnosis and Fault Tolerant Control, MEMS and Microelectronics, Bio-Medical Instrumentation, Measurement and Instrumentation etc.

# This Department has obtained the following distinctions

- DST FIST sponsorship
- UGC SAP support
- UGC Non-SAP support
- National MEMS Design Centre
- UGC supported Major Research Projects
- OBAMA-SINGH knowledge Initiative INDO-US award support as a participating Department
- UGC innovative PG program grant support
- UGC support for B.Voc Programme

## ABOUT THE NPMaSS MEMS RESEARCH CENTRE

With a view to harness the huge potential of micro and smart systems technologies in our country and to equip us to reach the necessary level of maturity, the National Programme on Smart Materials (NPSM) was launched jointly by the five scientific departments of the Government of India, namely, DRDO, DST, CSIR, DOS and DIT in 2000. In order to further take up the development of this allpervasive technology National Programme on Micro and Smart Systems (NPMaSS) was implemented jointly by the same five departments since 2007. NPMaSSprogramme, as an initiative to develop and train manpower in the area of MEMS and NEMS established National MEMS design centres at various institutes in India and during this process NPMaSS MEMS design centre was established at Annamalai University also in the year 2009. The main aim of the NPMaSS is to consolidate the gains from NPSM through the realization of products/devices/subsystems based on MEMS and smart materials technology, and their field demonstration. NPMaSS MEMS design centre at Annamalai University also focuses on the same objectives.

The centre has various MEMS simulation and design tools that are widely used by our research scholars, and post graduate students. Further, the centre houses the minimum required facilities for teaching the fundamental of MEMS/Nanoelectronics fabrication and characterization.

The centre has actively involved in MEMS/NEMS/Nanoelectronics research and has so far produced 8 Ph.D. theses. Currently there are 11 Ph.D. scholars pursuing their Ph.D. in this centre. The various activities of this centre are managed by 7 faculties with expertise in this field. The graduate program on Microelectronics and MEMS offered by this centre since 2015 is first of its kind in Tamilnadu.

#### SCOPE OF THE CONFERENCE

This national conference will attract researchers, industries and other professionals in the field of MEMS/NEMS, Nanoelectronics, Smart Materials, Structures and Systems, across the country with special emphasis on Micro / Nano sensors, Nano MOSFET's and circuits.

## THE FOCUS IS ON THE FOLLOWING TOPICS:-

- Modeling and analysis of Micro and Nano Structures
- Design of Micro and Nano components and systems
- Micro/ Nano Sensors and Actuators
- Micro and Nano Devices Fabrication and Characterization
- MEMS Simulation Using MATLAB
- Micro and Nano System packaging
- Smart material and Structures for Nanoelectronics, Sensors and Actuators, Bio-MEMS, Renewable energy, Structural Health Monitoring, Wireless Sensing and Networking, Micro cooling systems for ICs, Automotives, RF-MEMS applications.
- ❖ Minimum one author should register for the conference on or before 30.10.2018 in order to include the paper in the conference proceedings.