



INSTITUTE OF SMART STRUCTURES & SYSTEMS (ISSS)

Eighth ISSS International Conference on Smart Materials Structures & Systems (ISSS 2017)

July 5-7, 2017

Organized by ISSS and the Indian Institute of Science (IISc) Bangalore

FIRST ANNOUNCEMENT

Institute for Smart Structures and Systems (ISSS) was registered as a technical society under the Government of Karnataka to promote the Science and Technology of Smart materials and systems, MEMS and related areas. ISSS organizes triennial International Conferences and annual National Conferences, which are the major events providing a platform for dissemination of knowledge and information amongst the practitioners of Micro and Smart Systems technology. ISSS also conducts training workshops for teachers of engineering education institutions across the country. ISSS publishes a biennial technical journal called *Journal of the Institute of Smart Structures & Systems* since 2012. This journal is co-published with Springer as ISSS Journal of Micro and Smart Systems from 2017.

It has been more than eighteen years since ISSS started the series of triennial International Conference on Smart Materials Structures and Systems. During this period there has been a spurt of activities in the area of Smart Structures in general and MEMS in particular. In recent years, the National Programme on Micro and Smart Systems has facilitated product oriented research in India, in many areas of interest to ISSS.

The evolution and maturing of these technologies are clearly visible over the years. The present conference, which is the seventh in the series, continues this evolutionary thread and aims to provide a forum to academicians, researchers and technologists to not only assess the current status in these technologies but also to steer towards a more effective utilization of these technologies.

The present conference is jointly organized by ISSS and Indian Institute of Science (IISc) to be held at the National Science Seminar Complex, IISc Bangalore.

Important Dates

Manuscript submissions open: **November 1, 2016**
Manuscript submissions close: **February 15, 2017**
Intimation of Paper Acceptance: **April 15, 2017**
Early-bird registration deadline: **May 15, 2017**
Camera ready manuscripts for e-proceedings: **May 15, 2017**
Technical Sessions of ISSS-2017 **July 5-7, 2017**.

Previous Conferences

The previous conferences in this series were highly successful with an average of over 400 delegates participating in the previous events organized in Bangalore by ISSS in association with IISc and other R&D Organizations. For more visit <http://www.isssonline.in>

Structure of the Conference

The conference will have several Plenary and Invited talks on contemporary areas of micro and smart systems technologies from leading experts from around the world. In addition, contributions are sought for oral and poster sessions of the conference on topics including (but not limited to):

- Adaptive/smart materials
- Sensors and Actuators
- Design, modeling and simulation
- MEMS & NEMS: Design, electronics and packaging
- Nanotechnologies for smart systems
- Micro and Smart Systems for Energy Harvesting
- Signal conditioning & processing techniques
- Cyber physical systems
- Applications: Internet of Things (IoT)
Structural Health Monitoring,
Automotive sensors, Agriculture,
BioMEMS and RF-MEMS

Side Events during ISSS2017

PhD Students Forum
ISSS Annual Award presentations
Startups in Micro and Smart Technologies
Teams and Technologies
Technology Commercialization

Other attractions during the conference
Workshops, Tutorials, Poster sessions

Pre-Conference Tutorial Workshops

As done during previous conferences, special preconference tutorial workshops are planned on topics of special interest such as Micro- and nano-fabrication, Advanced topics in MEMS fabrication, Microsystems development and smart materials and systems. Topics for these workshops will be announced shortly on the conference website. Special registration charges may apply to attend these events.

In addition, special tutorial workshops/sessions on topics such as microsensors in agriculture, nanobiomedicine would be organized as parallel sessions during the conference.

Young Innovators Forum

The objective of this event is to highlight student innovations happening around the country on topics related to micro and smart technologies, and enable transitioning these for societal use. Winners of UG, PG and PhD awards instituted by ISSS for the year 2017 will be decided based on these presentations. Contributors of this event may separately submit technical papers based on this work for consideration for the conference proceedings. A special jury constituted by the Governing Council of ISSS will evaluate these presentations to decide on the winners of the ISSS Awards. Only students who are registered as regular students in recognized academic institutions in India will be eligible for ISSS Awards. Rules for eligibility for various categories of awards are given in the ISSS website. However, other young investigators are welcome to participate at these events to present their work. Please note that participation will be limited by invitation based on initial interest to participate. Please fill in the form at the conference by April 30, 2017 to ensure your slot.

Teams & Technologies

This year, ISSS would like to bring together teams that are developing new technologies in related domains, with the objective of setting up examples, inviting new collaborations, and celebrating their achievements. Organizers of the conference wish to invite teams from around the country for this session. Please send nominations to the organizing team if you have any input on this, or if you wish to suggest a particular team. This session will be open to all participants of the conference, but will be held as a parallel event during one of the days of the conference.

Startups in Micro and Smart Systems

During the past several years several startup companies have been established that use micro and smart systems. The Organizers of ISSS 2017 wish to invite these companies to present their products for the participants and special invitees of the conference.

Initiatives for Young Researchers

Special events are held during the conference to encourage participation of students and young researchers. A special pre-conference tutorial workshop on micro systems will be arranged for beginners. Student participation at the technical sessions of the conference is highly welcome.

ISSS Student Awards

ISSS has instituted attractive awards for students in various categories. Please see the ISSS Awards website for eligibility criteria for each category of award. Please note that shortlisted contestants are required to present their work at the Young Innovators Forum which is special event held during the conference. Winners of ISSS UG, PG and PhD Awards will be decided based on these presentations. Please note that the academic advisor is required to certify that the research work being considered for the award is done during the tenure of the degree program.

ISSS UG AWARDS (for BE/BTech students) | Prize Rs 15,000 (A summary of project work should be submitted as a four-page paper)

ISSS PG AWARD (for ME/MTech/MS/MPhil/ MSc students) Prize Rs 20,000, (A summary of project/research work should be submitted as a four-page paper.)

ISSS PG AWARD (for PhD students) Prize Rs 25,000, (A synopsis of the research work including key results, schematics, etc., limited to six pages, and a list of accepted/published papers based on the research work of the candidate should be submitted.)

A support letter from the academic supervisor certifying the status/category of the studentship is required. Award winners will be given a memento, cash prize as above, and an Award Certificate. The academic supervisor(s) of award winning students will be given a Commendation Certificate. Student projects executed at NPMASS supported National MEMS Design Centres is specially welcome for this competition.

All contestants will be asked to make a poster presentation of their work at the Young Innovators Forum held at the conference venue. After evaluations the award winners will be required to make a short oral presentation during a special session of the conference. However, these papers will not be included in the conference proceedings. Regular papers from these contestants can however be submitted along with other submissions to the conference technical program.

ISSS Young Scientist Award

ISSS has initiated a Young Scientist Award for outstanding researchers in the area of micro and smart systems. The award will carry an ISSS medal, a citation, and a cash prize of Rs 50,000.

Nomination should include the list of publications and a short description of the nominee's contributions. Nomination by "self" should be supported by reference letters by two expert persons familiar with the nominee's work. Nomination by an ISSS member should be seconded by another ISSS member or a subject expert and should contain a brief justification for the nomination. Nomination by Head of Institution should contain details of the nominee's work at the institute and a recommendation from an expert such as thesis supervisor or a senior member of faculty.

Nomination format is available to download at ISSS website. The last date of nomination is **March 31, 2017**.

ISSS Technology Award

ISSS has initiated a Technology Award for young researchers who pursue technology development with passion and vigour. The award will carry an ISSS medal, a citation, and a cash prize of Rs 50,000.

Nomination should include the list of publications and a short description of the nominee's contributions. Nomination by "self" should be supported by reference letters by two expert persons familiar with the nominee's work. Nomination by an ISSS member should be seconded by another ISSS member or a subject expert and should contain a brief justification for the nomination. Nomination by Head of Institution should contain details of the nominee's work at the institute and a recommendation from an expert such as thesis supervisor or a senior member of faculty.

Nomination format is available to download at ISSS website. The last date of nomination is **March 31, 2017**.

Instructions for Authors

Prospective authors are requested to submit contributions through the online portal as a pdf file on or before **February 15, 2017**. The submitted article should be in the near-final, camera ready form, and should highlight important technical contributions of about four pages, which will enable a decision on the acceptance. Hardcopy/email submissions will not be considered.

Please see the conference website for additional submission requirements and policies on copyright and plagiarism. The acceptance will be based on the peer review of the manuscript and the decision of the Technical Program Committee will be communicated to the corresponding author by **April 15, 2017**. Subsequent to acceptance of the manuscript, final manuscript in PDF should be submitted again by **May 15, 2017**. At least one of the authors should be registered by the advance registration deadline, for the inclusion of the paper in the Proceedings. The Proceedings of the conference containing all accepted full-length papers are planned to be made available to the registrants of the Conference.

A few of the contributed papers presented during the conference will be short-listed for publication in the *ISSS Journal of Micro and Smart Systems* co-published with Springer, after further review.



Sponsorships

ISSS seeks financial support from various agencies to reduce the financial burden on researchers to attend the conference. Platinum, Gold and Silver sponsorship opportunities are available. Sponsors' details will be displayed at the venues, banners, and various publications related to the event. They will also be given preferential allocation of exhibition space at the conference venue, according to category.

Product Exhibitions

Industries are welcome to show-case their products during the conference. Exhibitions stalls measuring 2mx3m (typical) will be provided to industries supporting the conference. Please contact the organizers for additional details.

For updated Details visit
<http://www.isssonline.in/iss-2017>

Contact information
Organizers: admin@isssonline.in
Technical Program Committee: tpchair@isssonline.in

