12th Asia-Pacific Microscopy Conference
3-7 February, 2020
HICC, Hyderabad, India
We take great pleasure in informing you that, the Electron Microscope Society of India (EMSI), which is affiliated to IFSM, an Union Member of International Council of Science (ISC): formerly International Council of Scientific Unions (ICSU), has been given the opportunity to organize the 12th Asia-Pacific Microscopy Conference during 03-07 February, 2020 at Hyderabad.

The APMC – an international event, is organized every four years under the auspices of CAPSM–Committee of Asia-Pacific Society for Microscopy (comprising of 17 countries). This time the APMC will be held in conjunction with the annual conference and the XL (40th) meeting (AGM) of the EMSI.

It is anticipated that over a thousand scientists, researchers and students using different microscopy tools and techniques across the world will be attending the conference.

A large-scale interactive exhibition will be held where suppliers of Electron Microscopes and Allied Techniques will present and demonstrate the new technologies implemented in their instruments.

On behalf of the Organizing Committee of the APMC-12 & EMSI, we warmly welcome you to the ‘City of Pearls’ with your families and friends and wish you a memorable visit and stay at Hyderabad, India.
The APMC logo signifies the deep connection between field of microscopy and scientific research.

The letter **A** stands for Analytical (Chemical) characterization of materials at atomic level through various techniques.

The letter **P** represents Phases, which are uniquely identifiable structural entities in a material.

The letter **M** shows Microscopes, which are indispensable tools for observing material (engineering and biological) structures and phenomena at scales which are way below the limit of human vision.

The letter **C** depicts Crystal structures and atomic/molecular/macromolecular studies in materials and life sciences.

So, **APMC 2020** is a global platform where researchers, academicians and industry experts can come together to share their knowledge and experiences on Microscopy for Crystallographic, structural and Analytical characterization of various Phases and objects in materials and life sciences.
The Asia-Pacific Microscopy Conferences (APMC) is held every four years since 1956 under the aegis of Committee of Asia-Pacific Societies of Microscopy (CAPSM). These conferences are held in different cities of Asia-Pacific region in collaboration with different local bodies of microscopy to promote electron microscopy and the various allied techniques and their application in carrying out scientific research towards the development of science and technology. The conferences provide platform for the young researchers and microscopists to interact with the world-renowned scientists in their respective fields and also with the industry people. All over the world there are several electron microscopy bodies or unions which organize electron microscopy conferences or workshops in different part of the world such as International Microscopy Congresses (IMC), European Microscopy Congresses (EMC), Multinational Congresses on Microscopy (MCM), Microscopy Society of America (MSA), International Federation of Societies for Microscopy (IFSM) etc.

Electron Microscope Society of India (EMSI), which is one of the affiliated organizations of CAPSM and IFSM, is organizing the 12th APMC conference in India. The APMC conference is going to be held in India after 55 years of the Second Regional Conference on ‘Electron Microscopy in Far East and Oceania’ held at Kolkata on February 2–6, 1965. Therefore, EMSI is trying to provide a great opportunity for the scientists and researchers of India to get an exposure to the cutting edge research activities carried out in the various renowned laboratories working in the field of microscopy all over the world.
## Registration Details

<table>
<thead>
<tr>
<th>Category</th>
<th>Early Bird (Up to 30th June, 2019)</th>
<th>Regular (Up to 31st Dec, 2019)</th>
<th>On-Spot Registration</th>
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<tbody>
<tr>
<td>Delegates</td>
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</table>

All prices mentioned above are inclusive of GST.

## Important Date(s)

- Paper submission opens: **01 January 2019**
- Deadline for IFSM YR contest: **30 June 2019**
- Paper submission deadline: **31 August 2019**
- Paper acceptance notification: **31 October 2019**
- Early Bird Registration deadline: **30 June 2019**
- Regular Registration deadline: **31 December 2019**

For details, terms and conditions, please visit: www.apmc12.in
Scope of the Conference

APMC 12: A forum for sharing the latest ideas and technologies in the world of microscopy and allied techniques especially for the Asia-Pacific Microscopists. The conference includes a wide range of topics under three main streams:


**Life Sciences:** Sessions will deal with Microscopy and Imaging associated with Bio Nanotechnology, Medical Applications, Host-Pathogen Interaction, Brain Structure, Animal Physiology and Development, Application in Paleontology, Flow Cytometry, Diseases and Immunocyto Chemistry, Multimodal Molecular Imaging in Health & Disease, Imaging methods in Medicine, Virology and Taxonomy and other related topics.

**Microscopy Techniques:** This stream includes Aberration Corrected TEM & STEM, SEM – FIB, Ion Beam Microscopy, Electron Diffraction & Crystallography, EBSD, Orientation Microscopy in TEM/PED, Microscopy based microanalysis, SPM, Spectroscopy analysis, Cryo Electron Microscopy, 3D-APT, In-situ techniques and other techniques.

**IFSM Initiative**
Young Researchers, Students and Scholars below the age of 40 are encouraged to submit new and exciting results in their respective fields which will be evaluated under the category Student / Young Researchers Contest (YRC). Registration fee for the Top Ten papers will be waived off along with an opportunity to present their work in the conference.
# Topics

<table>
<thead>
<tr>
<th>Material Sciences (MS)</th>
<th>Life Sciences (LS)</th>
<th>Microscopy Techniques (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-01 Electron Microscopy of Metals and Alloys</td>
<td>LS-01 Cryo-TEM Techniques for Biological Materials</td>
<td>MT-01 Advances in Scanning Electron Microscopy</td>
</tr>
<tr>
<td>MS-03 Microscopy of Thin-films, Coatings and Interfaces</td>
<td>LS-03 Biomedical Imaging, Diagnostics, Therapy and Biotechnology</td>
<td>MT-03 Advances in Atom Probe Tomography</td>
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<tr>
<td>MS-04 Nanostructured and Nanomaterials</td>
<td>LS-04 Tissue and Cell Structures</td>
<td>MT-04 EBSD, TKD and Related Techniques</td>
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<tr>
<td>MS-05 Glass, Ceramic and Composites</td>
<td>LS-05 3-D Structures of Macromolecules &amp; Supramolecular Assemblies</td>
<td>MT-05 Chemistry and Spectroscopic Techniques in Electron Microscopy</td>
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<tr>
<td>MS-06 Energy Materials</td>
<td>LS-06 Cellular Transport &amp; Dynamics</td>
<td>MT-06 Electron Microscopy: In-situ Techniques</td>
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<tr>
<td>MS-07 Magnetic, Ferroelectric and Multiferroic Materials</td>
<td>LS-07 Microscopy in Dentistry</td>
<td>MT-07 Computational Methods for Data Acquisition, Analysis and Visualization</td>
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<tr>
<td>MS-08 Diffraction, Crystallography and Aperiodic Structures</td>
<td>LS-08 Microscopic approaches for Biological Structures and Functions</td>
<td>MT-08 Other Complementary and Emerging Techniques</td>
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<tr>
<td>MS-09 Electron Microscopy of Electronic and Photonic Materials</td>
<td>LS-09 Microscopy for Animal Physiology and Development</td>
<td>MT-09 Advances in Ion Microscopy</td>
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<tr>
<td>MS-10 Novel, Functional and Smart Emerging Materials</td>
<td>LS-10 Pathology</td>
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<tr>
<td>MS-11 Materials in Geology, Mineralogy and Archaeology</td>
<td>LS-11 Microscopical studies on Health &amp; Disease and Immunocytochemistry</td>
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<tr>
<td>MS-12 Microscopy: Defects and Radiation Damage of Materials</td>
<td>LS-12 Multimodal Molecular Imaging in Health &amp; Disease</td>
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<td>MS-13 Microscopy: Materials Corrosion</td>
<td>LS-13 Embryology &amp; Developmental Biology</td>
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<td>LS-14 Plant Science &amp; Mycology</td>
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<td>LS-15 Invertebrate Biology &amp; Taxonomy</td>
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<td>LS-16 Microbiology and Virology</td>
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All prices mentioned above are exclusive of GST.

Note: 3A – Three Stalls of A category; 2A – Two Stalls of A Category; 1A – One Stall of A Category; 1B - One Stall of B Category
Electron Microscope Society of India was inaugurated on 2nd December 1961 at Saha Institute of Nuclear Physics by Late Prof. S. N. Bose as a collective effort of several scientists including Prof. N. N. Das Gupta and Dr. (Mrs.) S. M. Sirsat. The first conference of EMSI was held on 2nd and 3rd December 1961. Dr. N. N. Das Gupta was elected as the first President of the society. The society was formally registered with the Registrar of Joint Stock Companies, Calcutta in March 1962. The founding membership of the society consisted of about 50 members engaged in electron microscopy work in about 15 laboratories in India. Currently, the society has a membership strength close to 2,000.

The society is one of its kind having members from various parts of India and from vastly different disciplines viz., Materials Science, Biological Science, Medical Science, Metallurgical Science, Forensic Science, Agricultural Science, Geological Science, Pharmaceutical Science etc. EMSI takes utmost efforts to reflect the diversity of its members in scientific specialization and demography, in its administrative body. Also, the annual conferences of the society are held in different parts of the country. Now, EMSI feels proud to have the honor of hosting the Asia-Pacific Microscopy Conference (APMC-12) in conjunction with its XL (40th) AGM and annual conference during 3-7 February, 2020 at HICC, Hyderabad, India.
HICC is the first state-of-the-art convention centre of its kind in South Asia. It compares with the best in the world in infrastructure, technology and service. HICC has been awarded the ‘Best Convention Centre’ National Tourism Award for three years in a row by Incredible India. HICC is a Green Globe certified convention centre.

The Novotel Hotel adjacent to HICC is a 5-star hotel with 287 rooms, built to suit the requirements of the discerning business traveller.
Accommodation

The conference venue (HICC) is adjacent to a 5-star hotel (Novotel) with 287 rooms, built to suit the requirements of the discerning business traveller. Apart from this, many hotels with varying budgets are available within 4-5 km of the conference venue. Some of these hotels will be available at discounted price due to tie up with conference organizers.

Transportation

The HICC is around 35 km from the Hyderabad International airport and around 20 km from the Secunderabad railway station. Hyderabad has excellent cab and bus services. Metro rail facility is also available for travelling to different places in the city. Transport will be arranged only for pick up and drop from the conference venue to the conference linked hotels and guest houses / locations around the venue during conference days.

For further details regarding accommodation and transportation, please visit:
www.apmc12.in
The conference city, Hyderabad, one of the most preferred tourist destinations in India, is the capital of the state of Telangana – which connects the northern and southern states of India. It is the perfect “melting pot” for the confluence of diverse cultures of not just the states in India, but the regions of the world as well. Hyderabad, India’s fifth largest metropolis, is a city with rich history and culture. It was historically a pearl and diamond trading hub, and it continues to be known as the “City of Pearls”. Hyderabad is also called the ‘City of Nawabs’ and the ‘Biryani City’.

Hyderabad is a preferred destination for many global IT companies and is home to several scientific research organizations, institutions for higher education and central administrative bodies. Also, the city has re-invented itself as a hub for heavy industry, pharmaceuticals and bio-technology. The city is not only well connected by road, rail and air to different parts of India, but it also has good aerial connectivity with major cities around the globe.

Weather in February

31 °C  88 °F  18 °C  64 °F
Conference Committee

Conference Chair
Dr. Partha Ghosal
Chairman – EMSI (Central)
Hyderabad

Conference Co-Chair
Dr. K Muraleedharan
Member – CAPSM
Kolkata

Conference Co-Chair
Dr. P V Satyam
President – EMSI
Bhubaneshwar

APMC12
International Advisory Committee
Chairman
Kamanio Chattopadhyay, India
Co-Chairmen
C Barry Carter, USA
Zhong Ze, China

National Advisory Committee
Chairman
G K Dey, Mumbai
Co-Chairmen
N Ravishankar, B’lore
K R Vinoth Kumar, B’lore
Convener
Raghavendra Tewari, Mumbai

Local Organizing Committee
Chairman
Partha Ghosal, Hyd
Co-Chairperson
Anita Jagota, Hyd
Convener
Rajdeep Sarkar, Hyd
Honorary Treasurer
Soumya Deb, Hyd

CAPSM
Executive Council
President
Zhang Ze, China
Vice President
Mary ML Ng, Singapore
Secretary & Treasurer
Hing Hiang Lian, Malaysia
Executive Committee
Members
Fu-Rong Chen, Taiwan
Syo Matsumura, Japan

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