TWENTY-SEVENTH

IEI Convocation and Technicians’/ Students’ Convention

Jaipur, November 9-10, 2019

All-India Technicians’/Students’ Seminar and Technical Session

INDUSTRY 4.0-
TRANSFORMING INDUSTRIAL PRODUCTIVITY

The Institution of Engineers (India)
8 Gokhale Road, Kolkata 700 020
Hosted by : Rajasthan State Centre, Jaipur
The Institution of Engineers (India) (IEI) organised its First Convocation and Technicians'/Students' Convention in 1993 to award certificates to those who passed Sections A and B Examinations of the Institution in 1992 and has been continuing to organise the same for the last 26 years. To make this occasion even more purposeful, multiple events are planned, including a seminar on a contemporary topic, multiple technical sessions and awards to students’ design competition. On this momentous occasion, three top ranking chapters will be honoured in both Technicians’ and Students’ Chapters category (both Engineering College/Polytechnic Students’ Chapter), based on their technical activities over the year. Participation in such an event is an honour to participants and would help to build a sense of belongingness and provide a platform for building fellowship and create opportunities for networking and interaction with peers and senior members of the Institution. The ensuing Twenty-seventh IEI Convocation and the Technicians'/Students’ Convention will be held at Jaipur during November 9 - 10, 2019 under the aegis of the Rajasthan State Centre of IEI.

## TENTATIVE PROGRAMME

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 9, 2019 (Saturday)</td>
<td>Rajasthan State Centre, IEI Gandhi Nagar, Tonk Road Jaipur 302015</td>
<td>1000 h - 1800 h</td>
</tr>
<tr>
<td></td>
<td>Issue of Robes</td>
<td>1000 h - 1300 h</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>1300 h - 1400 h</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>1400 h - 1700 h</td>
</tr>
<tr>
<td>November 10, 2019 (Sunday)</td>
<td>B M Birla Auditorium, Birla Institute of Scientific Research, Statue Circle, Jaipur 302001 Rajasthan, India</td>
<td>1000 h - 1200 h</td>
</tr>
<tr>
<td></td>
<td>Issue of Robes</td>
<td>1000 h - 1130 h</td>
</tr>
<tr>
<td></td>
<td>Meeting of AITC</td>
<td>1130 h - 1300 h</td>
</tr>
<tr>
<td></td>
<td>Meeting of AISC</td>
<td>1300 h - 1400 h</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>1500 h - 1800 h</td>
</tr>
<tr>
<td></td>
<td>Convocation Award of Certificates and Distribution of Prizes</td>
<td>1830 h</td>
</tr>
</tbody>
</table>

## REGISTRATION FEE

<table>
<thead>
<tr>
<th>Category</th>
<th>Up to 30.09.19</th>
<th>On or after 01.10.19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technician/Senior Technician/Student of Engineering College/Polytechnic</td>
<td>₹ 944*</td>
<td>₹ 1180*</td>
</tr>
<tr>
<td>Candidates passed Sections A &amp; B Examinations</td>
<td>₹ 1416*</td>
<td>₹ 1416*</td>
</tr>
<tr>
<td>Students Chapters’ Member of Engineering College/ Polytechnic</td>
<td>₹ 944*</td>
<td>₹ 1180*</td>
</tr>
<tr>
<td>Corporate Member of IEI</td>
<td>₹ 2360*</td>
<td>₹ 2950*</td>
</tr>
<tr>
<td>Spouse/Guest</td>
<td>₹ 944*</td>
<td>₹ 1180*</td>
</tr>
<tr>
<td>Sponsored Delegates</td>
<td>₹ 3540*</td>
<td>₹ 4720*</td>
</tr>
</tbody>
</table>

The amount towards Registration Fee along with other charges, if any, should be sent by demand draft drawn in favour of ‘The Institution of Engineers (India), Rajasthan State Centre, payable at Jaipur’.

*All the above rates are inclusive of GST @ 18%*

## CONTACT ADDRESS

Intending participants are requested to register themselves latest by 30 Sep 2019 with the remittance of the requisite registration fee to the address given below:

The Organising Secretary (Convocation 2019)
The Institution of Engineers (India)
Rajasthan State Centre
Gandhi Nagar, Tonk Road
Jaipur 302015

Ph: (0141) 2706327, Cell: 9829978378/9414753160
For registration & any other information
E-mail: iei@convocation2019@gmail.com
rajasthansec@ieindia.org
Website: www.ieisc.org

## ACCOMMODATION

Participants are requested to make their lodging and feeding arrangements in the vicinity of the venue of Convocation and Technicians'/Students’ Convention for ease of access to the venue. The nearest railway station to the venue is Jaipur. For any queries regarding accommodation, please contact:
The Organising Secretary, Convocation 2019 as given under Contact Address.
REGISTRATION FORM

Name:...................................................................................................................... Membership Grade: No:......................................................................................................................

Accompanying Person(s): □ Spouse: Yes/No Number of Guest(s): □

Mailing Address: ........................................................................................................

..............................................................................................................................

E-mail id: .................................................................................................................. Mobile No.: ......................................................

Arrival Details: ........................................................................................................ 

Date: ................................................. Flight/Train No.: .............................................. Arriving from ........................................... Time: ..............................................

Departure Details: ...................................................................................................

Date: ................................................. Flight/Train No.: .............................................. Departure to ........................................... Time: ..............................................

REGISTRATION FEE FOR EACH PARTICIPANT

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<td>₹ 1180/-*</td>
</tr>
<tr>
<td>Sponsored (irrespective of all above grades) Delegates</td>
<td>₹ 3540/-*</td>
<td>₹ 4720/-*</td>
</tr>
</tbody>
</table>

*All the above rates are inclusive of GST 18%

Total Remittance: ..............................................

Note:

All remittances should be made by Bank Draft payable to ‘The Institution of Engineers (India), Rajasthan State Centre, payable at Jaipur (for registration in advance) or by cash (for spot registration).

Enclo: Bank draft no □□□□□□□□ dated □□□□□□□□ drawn on ................................................................. of ₹ ..............................................

Date: ..............................................

Signature of Delegate
Besides Convocation, the multi-capsule technical programme includes All India Technicians'/Students' Seminar where Technicians/Senior Technicians and Student Members of the Institution representing Engineering Colleges and Polytechnics will get the opportunity to present the technical papers. This feature of presentation of papers has become a tradition since long which provides a platform for budding engineers to discuss around a central theme. The central theme for the Seminar is as follows:

Industry 4.0 – Transforming Industrial Productivity

Technological advances have resulted in dramatic increase in industrial productivity since the dawn of the Industrial Revolution. Electrification led to mass production in the early twentieth century, and industry became automated in the 1970s. In the decades that followed, however, industrial technological advancements were tapered, compared to the phenomenal breakthroughs that transformed IT, mobile communications, and e-commerce. Now, we are in the middle of a fourth wave of technological advancement: the rise of new digital industrial technology known as Industry 4.0, a transformation that is powered by nine foundational technology advances.

It is a transformation that makes it possible to gather and analyze data across machines, enabling faster, more flexible, and more efficient processes to produce higher-quality goods at reduced costs. This manufacturing revolution will increase productivity, transform economics, foster industrial growth, and modify profile of the workforce - ultimately changing the competitiveness of companies and regions. Industry 4.0 allows for a faster response to customer needs than is possible today. It improves the flexibility, speed, productivity, and quality of the production process and lays down the foundation for adoption of new business models and production processes. Advanced digital technology is already used in manufacturing, but with Industry 4.0, it will transform production and change traditional production relationships among suppliers, producers, and customers - as well as between human and machines.

Nine technology trends which form the building blocks of Industry 4.0 are:

- Big Data and Analytics
- Autonomous Robots
- Simulation
- Horizontal and Vertical System Integration
- The Industrial Internet of Things
- Cyber-security
- The Cloud
- Additive Manufacturing
- Augmented Reality

Companies might face formidable challenges in embracing Industry 4.0: in order to fully implement this technology, they will need to broaden and deepen their practical knowledge about digital technologies and the related use cases - and then develop and implement tailored digital manufacturing strategies. Dr. Adrian Davis, Managing Director, Europe, Middle East and Africa Region, (ISC)2 says 'With a greater insight into their products, manufacturers can modify them to make them more attractive to prospective buyers and more useful to current customers as well as designing them in a way that makes them less prone to errors and more safe and secure. Ultimately, it will enable manufacturers to better serve their customers and meet their expectations. Preparing for it now means staying ahead of the curve and ensuring competitors do not get the upper hand'.

Industry 4.0 is definitely a revolutionary approach to manufacturing techniques. The concept will push global manufacturers to a new level of optimization and productivity. Not only that, but customers will also enjoy a new level of personally customized products that may have never been available before.

Technical papers are invited on following sub-themes:

- ▼ Process Improvement in Manufacturing Industry
- ▼ Applications of Radio Frequency Identification (RFID) Technology in the Logistics and Supply Chain Industry
- ▼ Plant Process Optimization with Internet of Things (IoT) Application
- ▼ Total Productive Maintenance (TPM) Application in Industries

In addition to the All India Technicians'/Students' Seminar, there will be another session for Technicians/Senior Technicians/Student members (both engineering college and polytechnic categories), where technical papers on topics of choice of members will be presented and discussed. As in case of the All India Technicians'/Students' Seminar, the papers submitted for the Technical Session shall also be vetted and authors of selected papers will be asked for presentation of their papers for consideration of prize. There are nine prizes in three categories, namely, First Prize (three of ₹ 2000/- each); Second Prize (three of ₹ 1500/- each) and Third Prize (three of ₹ 1000/- each). For both the Seminar and the Technical Session, the papers shall be adjudged for award of prizes in three groups, namely (i) Technician/ Senior Technician members of IEI; (ii) Members of Engineering College Students' Chapters of IEI, and (iii) Members of Polytechnic Students' Chapters of IEI.
GUIDELINES FOR SUBMISSION OF TECHNICAL PAPERS
Please send your paper to: rajasthansec@ieindia.org; ieiconvocation2019@gmail.com

The Organising Committee invites technical papers from the Technician/Senior Technician / Student Chapter Members of IEI for consideration of presentation of those short-listed papers duly vetted through a committee of experts and thereafter adjudge these papers for merit of award. The technical paper should be written in accordance with a set of guidelines. Salient points of the guidelines are given below:

- Last date for receiving papers at Rajasthan State Centre of IEI is 25 Sep, 2019. Technical papers received after this date will not be considered for possible presentation.
- Papers should be submitted through E-mail (ieiconvocation2019@gmail.com) and a copy of the same should be sent to The Organising Secretary (Convocation 2019), Jaipur, Rajasthan, as per the following instructions:
  Paper should be typed in double space on one side in A-4 size sheets and the contents should not exceed 1500 words including tables. The text must be in MS word and copied in a new CD to be sent along with three copies of the paper (please use 10 point Verdana typeface with both side justified format with 2.54 cm margin on all sides (A4 size), avoiding bold letters throughout the text.
- Figure(s), if any, should be featured at the appropriate place(s) in the text. In case of photographs, two (02) copies of only glossy black and white photographs for each depiction should be submitted. Colour photographs/diagrams are neither acceptable nor printed in the text.
- An abstract (within 100 words) of the paper and selected references, including name(s) of the author(s), title of the paper, name of the journal, volume no., and year of publication should be given at the end of the paper.
- Figures should be drawn neatly for better reproduction.
- Mathematical expressions should be typed/handwritten carefully indicating subscripts and superscripts, if any.
- Metric system of units (SI units) should only be used in the text and figures.
- Technical papers should not be copied from any sources/downloaded from Internet. Prospective contributors are required to prepare papers on innovative ideas in any field of engineering.
- Authors of selected papers will get the opportunity to present the paper with the help of power point presentation. Therefore selected authors are expected to bring device with them. In case of joint authors, only one author will be permitted to present the paper.
- More weightage will be given on the material content of the technical paper. Due weightage will also be given on (i) delivery (mode of presentation); (ii) logical sequence leading to objective, and (iii) originality of idea or critical thinking.
- Generally 10 min will be given to an author for presentation of his/her technical paper.
- Any query related to the technical paper submitted for presentation will not be entertained. The authors of selected technical papers will only be informed directly by the Rajasthan State Centre of IEI, inviting them to present their papers in Seminar/Technical Session. The authors, whose papers will not be selected, will also be informed accordingly. Complete mailing address mentioning grade/membership number (ST/T/SE/SP) of the author(s) with e-mail id and mobile number will help to communicate faster.
- Authors, attending the Seminar/Technical Session, have to make their own arrangement for accommodation.
- Second class to and fro rail fare between the recorded address and Jaipur will be reimbursed (via the shortest route) authors of selected papers by HQs of the Institution on submission of original copy of the railway tickets (both ways) (only one author per paper).

GENERAL INFORMATION

- On arrival at Jaipur, you are requested to register at the HQs Robes Issue Counter at Rajasthan State Centre on 9 Nov 2019 (from 1000 h to 1800 h) or latest by 1200 h on 10 Nov 2019 at B M Birla Auditorium for issuance of the Convocation Robe.
- Original certificates of passing Sections A&B Examinations shall be sent by speed post to those candidates, who will not be able to attend the Convocation.

For further information, please contact

The Director (EEA)
The Institution of Engineers (India)
8 Gokhal Road, Kolkata 700 020
Ph: (033) 4010 6273
Cell: 8240195289 [from Monday - Friday, 10 am - 6 pm]
E-mail: ieiconvocation@ieindia.org

The Organising Secretary (Convocation 2019)
The Institution of Engineers (India)
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Tonk Road, Jaipur 302 015
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