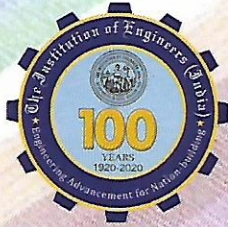


# The Institution of Engineers (India)

In service of the Nation since 1920



## International Conference ICTX 2020

February 9-10, 2020

Venue : Kolkata, India

Information Brochure



## Innovative Approaches for the Development of Sustainable Textile Products and Processes

Hosted by: West Bengal State Centre

## Knowledge Partners



## About The Institution of Engineers (India)

The Institution of Engineers (India) or IEI is a statutory body to promote and advance the engineering science and technology, established in 1920 and incorporated by Royal Charter in 1935. It is the largest multi-disciplinary professional body of engineers encompassing 15 (fifteen) engineering disciplines, and serving the nation for more than 9 decades. The IEI has its headquarters located in Kolkata and it function through more than hundred Centers and several Overseas Chapters, Foras and Organ Besides, IEI has bilateral agreements with about 31 international bodies and membership of another eight international bodies of the developed nations across the globe. Being recognized as a Scientific and Industrial Research Organisation (SIRO) by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India, IEI promotes the cause of research and development by providing Grant-in-Aid support to undergraduate, post graduate students and PhD Research Scholars of Engineering Institutions and Universities.

IEI conducts Section A & B Examinations in various engineering disciplines (known as AMIE examination), the successful completion of which is recognized as equivalent to Degree in appropriate field of Engineering of recognized Universities of India by the Ministry of Human Resources Development, Government of India.

IEI in collaboration with Springer regularly publishes peer-reviewed International Journal in five series, namely, Series A, Series B, Series C, Series D and Series E covering 15 engineering disciplines, which are **Scopus Indexed**.

For further details, please visit: [www.ieindia.org](http://www.ieindia.org)

## = Knowledge Partners =

### Department of Textile Engineering, Daffodil International University, Dhaka, Bangladesh

The Department of Textile Engineering (TE) of Daffodil International University (DIU) started its journey from the Fall Semester, 2005. It is now one of the well-established departments of the University equipped with modern classrooms and laboratories as well as students' accommodation. The Textile Engineering program is accredited by the Institute of Engineers, Bangladesh (IEB) and is the 6th best engineering program in the country. The department has been awarded "Very Good" grade by the external peer review team of IQAC, UGC. Department of Textile Engineering in DIU, enriched with 30 well qualified faculty members is committed to providing the best learning experience, developing employability, independence and communication skills for textile engineers by conducting both B.Sc. in Textile Engineering and M.Sc. in Textile Engineering Programmes. The academic activities have been divided into four major areas/divisions, namely, Yarn Manufacturing, Fabric Manufacturing, Textile Wet Processing and Apparel Manufacturing. Each area/division maintains its own laboratories. Presently, DIU is the top scorer in Times Higher Education and QS World University Ranking in Bangladesh.

### Unicept Chema LLP, Navi Mumbai

Unicept Chema LLP, established in 2016 by professionals with rich & wide Multinational experiences, is in the business of Product developments and supplying of Specialty Chemicals in the fields of Textiles, Polyurethane and Agriculture industries. The company is driven by innovation and is well known for its ability to develop products for the specific requirements of customers. For the Textile Industry, the product range encompasses the entire gamut of Textile manufacturing, which includes: Spinning, Sizing, Pretreatment, Dyeing, Finishing, Denim Processing, and Garment Finishing. As far as Agro-input market is concerned, Unicept Chema LLP specifically deals in the following products: a) Essential micronutrients including silicon for the soil & crops, b) Wetting, Spreading & Penetrating agents for the crops, c) Inoculant for nurseries, vertical farming, lawns, etc., d) Soil & water pH adjusters, and e) Insect trap chemicals to protect the crops. The above products help plants grow to their full potential, provide resistance to the crops from pest attacks and environmental changes thereby leading to the increased crop yields. Additionally, the water usage is minimized and the root growth is proliferated due to more aeration to the root zone.

### The Bombay Textile Research Association (BTRA), Mumbai

The Bombay Textile Research Association (BTRA), located at Ghatkopar (West), Mumbai, was registered by members of the Millowners Association, Bombay, under the Societies Registration Act, XXI of 1860 on 21st April 1954. BTRA has grown leaps and bounds over the years since its inception to meet the technological needs of the Indian textile industry as well as to achieve S&T objectives set at the national level. BTRA members include not only textile units but also manufacturers from man-made fibre, machinery, dyes and chemical auxiliary industries. The BTRA zone largely comprised of composite mills and from the beginning, the R & D and Services were fine-tuned to satisfy their comprehensive requirements. R & D activities at BTRA cover applied and basic research, process and product development, new and frontier areas of technology, engineering and microprocessor-based instrumentation, operational studies to improve and standardize mill working, testing and consultancy services, energy consumption etc. including training. The Centre of Excellence for Geosynthetic has been serving for the growth of Geosynthetic sector in India. BTRA scientists received 49 national awards since 1972 for recognition of outstanding services rendered to the Indian textile industry.

### DKTE Society's Textile & Engineering Institute, Ichalkaranji

Keeping in view the process of phenomenal growth of the textile industry in Ichalkaranji and the dearth of technically qualified

Engineering, Electronic Engineering, Electronics & Telecommunication Engineering, three diploma courses, in Textiles and seven postgraduate course in textiles as well as Mechanical Engineering and Electronic Engineering. The total student strength of the institute is around 3000+ and has 200+ teaching faculty members and 160+ non-teaching staffs. Due to excellent infrastructural facilities, highly qualified staffs and skilled management, the Institute has achieved recognition at International level. The main achievements of the Institute are – a) Institute has accredited with A+ Grade by NAAC and most of the programmes are accredited by National Board of Accreditation (NBA), b) Accreditation of the Text. Tech. course by the Textile Institute Manchester (UK), and c) Financial support & MOU with various foreign agencies.

## ICAR-National Institute of Natural Fibre Engineering and Technology, Kolkata

National Institute of Natural Fibre Engineering and Technology (NINFET) started its journey in 1938 as Jute Technological Research Laboratories (JTRL). With the expansion of activities and importance, the institute went over to the Indian Council of Agricultural Research (ICAR), New Delhi in 1965 and subsequently it was named as National Institute of Research on Jute and Allied Fibre Technology (NIRJAFT) in 1996. Very recently, NIRJAFT has been renamed as National Institute of Natural Fibre Engineering and Technology (NINFET). The mandate of the institute is to carry out basic, strategic and applied researches related to natural fibres other than cotton such as jute, mesta, linseed/flax, sisal, ramie, banana, sunnhemp, pineapple leaf, dhaincha, coir, animal hairs and other lesser known long vegetable and animal fibres, as well as utilisation of agro-residues. The institute is adequately equipped with the state-of-the-art laboratories having sophisticated tools, instruments, processing machinery and library. NINFET is also committed to pursuit the knowledge transfer, skill development, business incubation and economic development activities that benefit the local, regional and national constituents with the contribution of the motivated team of scientists and technical staffs.

### Objective

In the modern world, Innovation is a continuous process for bringing changes in the state of art of Science/Technology/Engineering and ultimately to our lifestyle. Presently, due to cumulative effect of innovations in various branches of Science/Technology/Engineering, changes or developments in any specific branch have been taking place at a very faster rate, where Textile may not be an exception. Like other products/processes, innovations in textiles are also done keeping in view the better quality, higher production, cost reduction, automation etc. in order to provide better life style to the people. Till date, the linkage between the institutes regarding research and development for the innovation of newer product and process is poor. Hence, the natures of innovations carried out in various academic and research Institutes as well as industries are discrete.

Recently, one of the buzz words is the sustainability, which is very much linked with environment or ecology issues of the mother earth. It is already established that our innovations have no right to destroy the environment or ecology in spite of their other desired merits. So, every innovative research is to be planned and carried out keeping in mind the environmental issues. While incorporating the environmental issues in the innovation of textile products and processes, the concerned researchers have been facing some challenges. Of course, it's the responsibility of the researchers to overcome the challenges. To get the better blending between innovation and sustainability issues, various social workers and Govt. authorities have also come forward. In the meantime, particularly in the current decade a lot of innovations have taken place in various places which have taken well care of the sustainability or environmental issues.

In order to accumulate the information of the various innovations globally as well as to disseminate the knowledge to the working researchers and would be researchers as well as to various stake holders of textiles, the International Conference has been proposed on the Theme – “Innovative Approaches for the Developments of Sustainable Textile Products and Processes”. The researchers with their experience on the proposed theme are expected to submit their valuable papers and other stake holders will be there to gather the necessary knowledge for performing their responsibility in real life applications. The interactions between these two categories will certainly bring out the effective outcome on the theme and make the proposed International Conference to be a successful one. This proposed International Conference will be an Event in the centenary year of The Institution of Engineers (India) which will be remembered in the years to come, as this is the first time, the Textile Engineering Division is going to organise “**International Conference**”. Website : [www.ictx2020.com](http://www.ictx2020.com)

### Areas to be Covered

- Approaches for development and production of sustainable fibres including jute and allied fibres for various applications
- Eco-friendly Techniques of production of Yarn and Fabric.
- Eco-friendly Chemical and Finishing Processes of Textiles.
- Sustainability of Handloom Products through quality improvement.
- Sustainability Initiatives in Fashion and Apparel Industry.
- Development of Natural Fibre (Jute and Allied fibres) based Green Composite.
- Capacity development, Marketing and Entrepreneur development

### Call for Papers

Interested Research Scholars, Faculty Members, Scientists and Engineers working in Research Institutes, Universities, Colleges and Industries in the field of Textile Engineering may submit the Extended Abstract to the Conference Secretariat.

## Submission of Abstract / Full Text

The authors are requested to submit the abstract and full text (post-acceptance of abstract) through e-mail : [ictx.iei.2020@gmail.com](mailto:ictx.iei.2020@gmail.com)

## Abstract Submission

- An Extended Abstract of the intended presentation highlighting important findings, relevant discussions and essential references
- Format: The Abstract should be in doc / docx; Title should be in 14 pt & Bold; Affiliation should be in 12 pt; Abstract should be in 12 pt Bold; Text of Abstract should be in 12 pt.; Maximum two figures; References in Harvard style. Maximum length of Abstract should be in two full A4 size pages

[The extended abstract should be in Times New Roman 1.5 spacing]

Only those abstracts which follow the mentioned format will be considered for evaluation by the Scientific Committee of the Conference.

The extended Abstract should be sent to: [ictx.iei.2020@gmail.com](mailto:ictx.iei.2020@gmail.com) on or before **September 15, 2019**

## Poster Presentation

Candidates willing for poster presentation shall also send Abstract. On evaluation, some of the Abstract Papers may be selected for Poster presentation. All the Authors of the selected Posters shall complete their Registration as per mentioned date, and make their presentation of 1 metre x 1 metre size and reach the Venue of the Conference with poster in time. **Three Prizes (1st, 2nd & 3rd)** will be given to the Poster Presenters based on their quality of presentation adjudicated by a Panel of Experts.

**Poster size should be 1 m x 1 m**

## Nodal Dates

Submission of Abstracts of Papers and Posters	15 September, 2019
Acceptance of abstract	01 October, 2019
Submission of Full length paper	30 November, 2019
Acceptance of Full Paper	20 December, 2019
Intimation to authors regarding session details	25 January, 2020

**All selected Abstracts, Plenary Lectures, Invited Lectures and Contributory Papers will be published in the Book of Abstract**

## Guidelines for Authors

Authors of accepted abstracts may submit their full paper for the International Conference as per the Guidelines as mentioned below. The papers not conforming to these guidelines may not be considered for peer review and publication.

## Preparation of Full Text of Paper

1. Papers should be camera-ready in MS-Word format, not exceeding 3000 words in length and should not carry more than 5 illustrations /photographs.
2. The language of the Publication is English. The mode of presentation should be in third person.
3. SI units should be used wherever possible. Other units, if used, should be given only in parentheses preceded by SI units.
4. Mathematical symbols should be typed and care should be taken to differentiate between similar characters (e.g. 1 and I), upper and lower case letters and superscripts and subscripts.
5. Lengthy mathematical proofs and derivations and extensive test data are discouraged. If absolutely essential, they should be given as an appendix.
6. The template of Paper can be downloaded from the link: [https://www.ieindia.org/webui/IEI-Activities.aspx#Call\\_Papers](https://www.ieindia.org/webui/IEI-Activities.aspx#Call_Papers)

## Copyright

The papers are considered for possible publication on the understanding that these have not been submitted to any other publisher. The copyright of papers accepted for publication lies with The Institution of Engineers (India) and reproduction of the papers or any part thereof is not allowed without the permission of the Institution. Contributors are required to sign a declaration to this effect while submitting their papers.

As per Bye-Law 118 of IEI, Copyright of each paper published in Institution Journals shall lie with the Institution.

The Declaration Form of IEI can be downloaded from the link:

[https://www.ieindia.org/webui/IEI-Activities.aspx#Call\\_Papers](https://www.ieindia.org/webui/IEI-Activities.aspx#Call_Papers)

## Publication in IEI-Springer Journal

The selected papers those presented in the Conference will be published in the Regular Issue of 'IEI – Springer Journal of The Institution of Engineers (India): Series E' after Peer Review process in the following categories:-

- Original Contribution
- Case Study
- Review Paper
- Article of Professional Interest
- Brief Communication



## Registration

SCOPUS Indexed

Corresponding / Presenting Author(s) have to register themselves for the International Conference within **December 15, 2019**, without which the paper or poster will not be considered for presentation.

## Registration Charges

Category	Till 30-11-2019 (Early bird)			From 01-12-2019		
	Fees	GST	Total	Fees	GST	Total
<b>Indian Delegate</b>						
Member of IE(I) Delegate	INR 3000	INR 540	INR 3540	INR 3500	INR 630	INR 4130
Non-Member Delegate	INR 4500	INR 810	INR 5310	INR 5000	INR 900	INR 5900
Student Delegate	INR 2500	INR 450	INR 2950	INR 3000	INR 450	INR 2950
Spouse of Delegate	INR 2500	INR 450	INR 2950	INR 3000	INR 540	INR 3540
<b>Foreign Delegate</b>						
Non-Student Delegate	US\$ 150	US\$ 27	US\$ 177	US\$ 200	US\$ 36	US\$ 236
Student Delegate	US\$ 75	US\$ 13.5	US\$ 88.5	US\$ 100	US\$ 18	US\$ 118
Spouse of Delegate	US\$ 75	US\$ 13.5	US\$ 88.5	US\$ 100	US\$ 18	US\$ 118

### Notes:

1. Registration fee includes participation in all Sessions, Exhibition, Official Banquet, Buffet Lunch Along with Tea/Coffee and Delegate Kit.
2. Spouse Registration is without Conference Kit
3. US\$ may be paid in Equivalent INR
4. Attested photo-copy of Identity Card and Bonafide Student Certificate from the Head of the Institution must be submitted by the student with Registration Form

## Accommodation

All Delegates have to arrange their own accommodation within the close proximity of the Conference venue, which will be informed later.

## Conference Website

The Conference website is located at: [www.ictx2020.com](http://www.ictx2020.com)

## About Kolkata

Kolkata, the "City of Joy" is situated by the side of river, Ganges. It is well connected by road, rail and air. It has a strong cultural heritage, well acknowledged for its literacy stance, art and music. Significant landmarks in this city are Howrah Bridge, Vidyasagar Setu (first cable Steid bridge of India), Victoria Memorial, Indian Museum, Birla Planatorium, Yubabharati Krirangan, Belur Math, Dakshineswar Temple, Pareshnath Temple, Fountain of Joy, Science City etc. Climate in Kolkata in February is pleasant and the temperature ranges between 15°C to 30°C. Light warm clothing will be comfortable.

## Sponsorship Fees & GST @ 18%

Category	Fees	GST	Total
<b>Platinum</b> (Free 4 Delegates + Inner Full-Page Multi-Colour Advt.)	INR 1,00,000	INR 18,000	INR 1,18,000
<b>Diamond</b> (Free 3 Delegates + Inner Full-Page Multi-Colour Advt.)	INR 75,000	INR 13,500	INR 88,500
<b>Gold</b> (Free 2 Delegates + Inner Full-Page Multi-Colour Advt.)	INR 50,000	INR 9,000	INR 59,000

Food Sponsor			
a) Conference Lunches (1st& 2nd day)	Negotiable		
b) Conference Dinner (1st day)	Negotiable		
c) High Tea (1st day & 2nd day)	Negotiable		

### Souvenir Advertisement Tariff & GST @ 18%

Category	Fees	GST	Total
Outside Back Cover Multi-Colour	INR 50,000	INR 9,000	INR 59,000
Inside Front Cover Multi-Colour	INR 30,000	INR 5,400	INR 35,400
Inside Back Cover Multi-Colour	INR 30,000	INR 5,400	INR 35,400
Inside Full-Page Multi-Colour	INR 17,000	INR 3,060	INR 20,060
Inside Half-Page Multi-Colour or Full-Page Black & White	INR 10,000	INR 1,800	INR 11,800

### Payment of Delegate Registration/Sponsorship Fees/Advertisement Tariff

Payment may be made either by A/C payee Cheques / Demand Draft or through Online. Organizations interested to sponsor various activities or advertisement may send the details of Sponsorship/Advertisement along with A/C payee Cheques / Demand Draft drawn in favour of "The Institution of Engineers(India), West Bengal State Centre" payable at Kolkata.

For online payment, please follow the details:-

Bank Name	: State Bank of India
Address of the Bank	: State Bank of India, Gokhale Road (02062) Branch, 1/2 Harish Mukherjee Road, Kolkata - 700 020, India
SWIFT Address of the Bank	: SBININBBJ46
Country of the Bank	: India
Beneficiary's Name	: The Institution of Engineers (India), West Bengal State Centre
Bank Account No.	: 10577673248
Address of beneficiary	: 8, Gokhale Road, Kolkata - 700 020
IFSC Code	: SBIN0002062
PAN No.	: AAATT3439Q
TAN No.	: CALT00968C
GST No.	: 19AAATT3439Q2ZQ

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