

Information Brochure

# The Institution of Engineers (India)

A Century of Service to the Nation

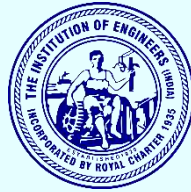
*All India Seminar*

On

*Technical Textiles: A Transformative force for the Challenges in  
Agriculture, Healthcare, and Construction Sectors.*

24<sup>th</sup> & 25<sup>th</sup> August, 2024, Bhubaneswar

Organised by



## The Institution of Engineers (India)

**Odisha State Centre, Bhubaneswar**

Under the Aegis of

**Textile Division Board, IEI**

In Association with



**Odisha University of Technology and Research, Bhubaneswar**

**Department of Textile Engineering**

Venue:

**The Institution of Engineers (India)**

**ODISHA STATE CENTRE**

**Engineers Bhawan, Institution of Engineers Square,  
Sachivalaya Marg, Unit-4, Bhubaneswar 751001**

E-mail: [odishasc@ieindia.org](mailto:odishasc@ieindia.org)

## **About The Institution of Engineers (India)**

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform for sharing professional interest. IEI has membership strength of above 0.8 million. Established in 1920, with its headquarter Kolkata, IEI has served the engineering fraternity close to a century. During this period of time, IEI has been inextricably linked with the history of modern-day engineering.

In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India which has been accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating through its 124 Centres located across the country and 6 overseas chapters. Besides, IEI has bilateral agreements with about 31 international bodies and membership of another 8 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 has been recognized as Scientific and Industrial Research Organization (SIRO) by the Ministry of Science & Technology, Government of India and besides conducting its' own research, provides Grant-in-Aid to UG/PG/PhD students of Engineering institutes and Universities.

IEI holds the International Professional Engineers (Int PE) Register for India under the global International Professional Engineers Alliance (Int PEA). The institution also awards the Professional Engineers (PE) Certification.

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 fifteen engineering disciplines.

## **About Odisha State Centre, The Institution of Engineers (India)**

Odisha State Centre, IEI was established at Burla on 22nd February, 1959 with 86 Corporate Members and 245 non-corporate members. The then Chief Minister of Odisha, Dr. Harekrushna Mahatab formally inaugurated its first session at Burla on 26th July, 1959. Rai Bahadur, M S Thirumale Iyengar, Er Sadananda Padhi and Prof Bhubaneswar Behera were the founder Chairman, Honorary Secretary & Honorary Joint Secretary of the State Centre respectively. Since that memorable day of 22<sup>nd</sup> February, 1959, there is no looking back. State Government of Odisha was pleased to allot 1.46 acres of land to The Institution of Engineers (India), Odisha Centre on 20th August, 1966 where the foundation stone of the present building was laid by Rai Bahadur, Dr A N Khosla, the then Governor of Odisha and Past-President of IEI (1948-1950) on 24th February, 1963. The building was completed and the then Governor of Odisha inaugurated on 15th February, 1965. From that day, all the activities of the OSC, IEI with its four Local Centers at Angul, Berhampur, Rourkela and Sunabeda are discharged to enhance the skill and knowledge with an overall membership of over 10,000.

## **About Odisha University of Technology and Research (OUTR), Bhubaneswar**

Odisha University of Technology and Research (OUTR), Bhubaneswar started functioning with effect from 8th October, 2021 consequent upon the upgradation of the College Engineering & Technology, Bhubaneswar by the Govt. of Odisha through the Odisha University of Technology and Research Act, 2021. College Engineering & Technology (CET), was established by the Government of Odisha in 1981 as a Constituent College of the Odisha University of Agriculture & Technology, to meet the growing technical man power need in the State. Subsequently, after creation of a Technical University known as Biju Patnaik University of Technology (BPUT) for Odisha State, CET became its Constituent College with effect from 09th July, 2002. The University is located in the Techno Campus at Kalinga Nagar, Bhubaneswar, about 2.0 km away from Khandagiri-Udayagiri caves. It spreads over 100 acres of green campus with 24x7 Wi-Fi coverage in the whole premises, including hostels. The University is 5 km from the bus stop, 8 km from Biju Patnaik International Airport, and 12 km from Bhubaneswar Railway Station.

The University presently conducts UG programmes ( B.Tech in 14 engineering streams, B.Arch, B.Plan.), PG programmes (M.Tech in 21 engineering disciplines, M.Arch, M.Plan, Msc & integrated M.Sc. in Applied Physics, Chemistry, Mathematics & Computing, MBA, MCA) and also Ph.D programmes in relevant specific subjects . The University regularly conducts seminars, symposia, workshops, ISTE sponsored programmes, Teachers' Training Programmes, short term courses, etc. to motivate the students, faculty members and staffs to achieve the best.

**Department of Textile Engineering** has 25 years of history in the university. It has well equipped laboratories, qualified faculty members and supporting staff. Students have good placement records in companies like Vardhman, Welspun, Reliance, Aditya Birla, Century Enka, Trident Textiles, etc. Students also venture into their future in software companies like TCS, Accenture, IBM, Cognizant etc. in campus placement drives. To become nationally acclaimed, the Department provides quality technical education in Textile Engineering both at UG and PG level.

## About the Theme

Technical Textiles have emerged as a transformative force in recent years to address contemporary challenges and meet the specific needs of diverse industries and sectors. Going beyond traditional textiles used for clothing, technical textiles are engineered using natural as well as high performance man-made fibres, that exhibit optimized functional properties such as higher tenacity, improved thermal resistance, flame resistance, chemical resistance, moisture management, excellent insulation, enhanced durability etc. Because of such enhanced functional properties, technical textiles find wide end use application in various sectors like agriculture, construction, health care, automobile, defense, sports, space etc. to meet the challenges in such sectors.

The Indian technical textile industry plays a significant role in both the national economy and the global market as of 2023, the Indian textile and apparel industry contributes about 2.3% to the country's GDP, with the expectations to increase this contribution to round 5% by 2030. India is currently the fifth-largest technical textiles market in the world, highlighting its significant role on the global stage. The technical textile segment in India is, thus, growing at a rapid pace, with an anticipated growth rate of 10% per year with the supportive government schemes like the Production-Linked Incentive (PLI) scheme and the National Technical Textile Mission, In the context of the above, if it is focused on the large sectors of the country like agriculture, construction and healthcare, the application of technical textiles in those sectors is essential for their sustainability due to the following reasons:

- **Enhanced Efficiency:** Technical textiles improve the efficiency of processes and products, leading to better performance and reduced resource consumption.
- **Durability and Longevity:** These textiles provide durability and long-lasting solutions, reducing the need for frequent replacements and maintenance.
- **Environmental Benefits:** By improving water management, soil health, energy efficiency, and waste reduction, technical textiles contribute to environmental sustainability.
- **Safety and Hygiene:** In healthcare, technical textiles play a vital role in ensuring hygiene, safety, and advanced medical care.

Incorporating technical textiles in these sectors not only supports their sustainability but also drives innovation and growth, making them more resilient and capable of meeting future challenges. Keeping these in view, this seminar aims to bring together experts, researchers, and professionals from agriculture, healthcare and construction sectors to foster cross-disciplinary collaboration and knowledge exchange.

## Sub Themes

### **1. Role of technical textiles in Agro-Industry**

- Focus on technical textiles used for crop protection from pests, extreme weather, and excessive sunlight, thereby improving yield and quality.
- Application of technical textiles for soil stabilization, erosion control, and weed suppression, enhancing soil health and productivity.
- Role of technical textiles in efficient water management through drip irrigation systems and pond liners, optimizing water usage.
- Highlighting the use of technical textiles for sustainable farming practices.

### **2. Integration of technical textiles into Construction sector.**

- Geotextiles and other construction textiles used for soil stabilization, drainage, and erosion control in infrastructure projects like roads, embankments, and retaining walls.
- Use of reinforcement materials like glass fiber and carbon fiber composites to improve the strength and durability of concrete structures for making them more sustainable and long-lasting
- Ecofriendly technical textiles for thermal and acoustic insulation, enhancing energy efficiency in buildings and reducing heating and cooling costs.
- Waterproofing membranes and roofing textiles protecting structures from water damage, extending their lifespan and reducing maintenance costs.
- Highlight on high performance fabrics with flame resistance, water repellency, and high strength contributing to the safety of workers.

### **3. Contribution of technical textiles in healthcare sectors**

- Meditech textiles, such as surgical gowns, drapes, and sterilization wraps, are crucial for maintaining hygiene and preventing infections in medical settings.
- Technical textiles designed to be breathable, durable, and resistant to microbes, ensuring the safety of patients and healthcare workers.
- Wearable textiles equipped with medical devices for monitoring, diagnosis, and treatment purposes.

- Technical textiles used in the production of advanced medical devices and implants, such as artificial ligaments, vascular grafts, and wound care products.

### **Call for Papers**

All interested participants are requested to contribute technical/ research papers and case studies detailing concept, innovation, idea or practical experiences for oral presentation. Each paper should begin with a synopsis of about 200 words and preferably within 3000 words excluding figures, tables and references. Paper can be send to ([Email id: odishasc@ieindia.org](mailto:odishasc@ieindia.org))

### **Closing Dates for Papers**

Submission of Abstract : 20<sup>th</sup> July, 2024  
Communication of Acceptance of Abstract : 25<sup>th</sup> July, 2024  
Submission of Full Length Paper : 5<sup>th</sup> August, 2024



**For Guidelines for Submission of Papers scan the QR Code**

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

### **TECHNICAL VOLUME & ADVERTISEMENT TARIFF:**

A technical volume will be brought out on the occasion of the All India Seminar for distribution to the delegates as well as to various related organizations across the country and abroad. It has been decided to accept a few selected advertisements in the Technical Volume. (Book Size: Demy ¼)

Back Cover Outside (Colour) ... Rs. 25,000.00  
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### **SPONSORSHIP**

Platinum: Rs.1, 50,000/- up to 15 delegates free plus one full page colour advertisement.

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Gold: Rs.1, 00,000/- up to 10 delegates free plus one full page B/W advertisement.

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### **REGISTRATION FEE**

Corporate Member of IEI : Rs. 1,000.00  
Member of Supporting Org : Rs. 1,500.00  
Industry Person / Non Member : Rs. 2,000.00  
Research Scholar / Students : Rs. 500.00

Registration fee includes Tea & Lunch during Seminar and a copy of the Souvenir/Technical Proceeding.

Account Name: **THE INSTITUTION OF ENGINEERS (INDIA), ODISHA STATE CENTRE**

Bank Name: **UNION BANK OF INDIA, A/C No: 089510011000065**

IFSC Code: **UBIN0808954**, Name of the Branch: **Madhusudan Nagar Branch**

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By DD drawn in the favour of **The Institution of Engineers (India), Odisha State Centre**, payable at **Bhubaneswar**.

## NATIONAL ADVISORY COMMITTEE

<b>Chairman :</b>	<b>Dr. G. Ranganath</b> , President, IEI
<b>Co-Chairman :</b>	<b>Prof.(Dr.) Ms. G. Thilagavathi</b> , Chairperson, TXDB, IEI
<b>Convener</b>	<b>Er. Kedar Nath Das</b> , Committee Member, TXED, Odisha State Centre, IEI
<b>Members</b>	<b>Dr. Nutan Kumar Dash</b> , FIE, Vice-President, IEI
	<b>Er. Sukhvir Singh Mundi</b> , FIE, Vice-President, IEI
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	<b>Prof.(Dr.) P.K.Padhi</b> . FIE, Committee Member, CVED & past Chairman, OSC, IEI
	<b>Er. P. K. Giri</b> , FIE, Member, TXED & past Chairman, OSC, IEI
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<b>Er. Sangram Keshari Pattnayak</b> , Hon Secretary, FIE, Odisha State Centre, IEI	

## ORGANIZING COMMITTEE

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<b>Organizing Secretary:</b>	<b>Er. Sangram Keshari Pattnayak</b> , Hon Secretary, FIE, Odisha State Centre, IEI
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	<b>Mr. Subrat Prusti</b> , Executive Director, Wild Lotus Fashions Pvt. Ltd., Chhatabar Industrial Estate, Khordha.
	<b>Dr. B.P. Dash</b> , FIE , Member, IEI, Odisha State Centre.
	<b>Dr. A. K. Dash</b> , FIE, Member, IEI, Odisha State Centre.
	<b>Er. Sudersan Behera</b> , MIE, Member, IEI, Odisha State Centre.
	<b>Er. Ramesh Chandra GIRI</b> , FIE, Member, IEI, Odisha State Centre.
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	<b>Er. Prakash Kumar Mishra</b> , AMIE, Member, IEI, Odisha State Centre.
	<b>Er. Hrudananda Satapathy</b> , AMIE, Member, IEI, Odisha State Centre.
	<b>Ms. Sujata Chand</b> , AMIE, Member, IEI, Odisha State Centre.

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<b>Convenor:</b>	<b>Er. Kedar Nath Das, FIE</b> , Committee Member, TXED, Odisha State Centre, IEI
<b>Members:</b>	<b>Dr. A. K. Dash, FIE</b> , Associate Prof., Department of Textile Engg. , OUTR, Bhubaneswar.
	<b>Dr. A . K. Khandual</b> , HoD, Dept. of Textile Engg. , OUTR, Bhubaneswar
	<b>Er. S. K. Patra, FIE</b> , Member , TXED, Odisha State Centre, IEI.

### CONTACT PERSON

**Er. Sangram Keshari Pattnayak, FIE**

Honorary Secretary

**The Institution of Engineers (India)**

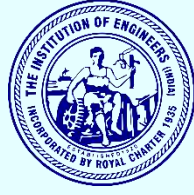
#### **ODISHA STATE CENTRE**

Engineers Bhawan, Institution of Engineers Square,

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Phone (Mobile): 9438407201



# The Institution of Engineers (India)

**Odisha State Centre, Bhubaneswar**

## **REGISTRATION FORM**

*All India Seminar*

*on*

*Technical Textiles: A Transformative force for the Challenges in  
Agriculture, Healthcare, and Construction Sectors.*

**24<sup>th</sup> & 25<sup>th</sup> August, 2024, Bhubaneswar**

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