# **About the College**

Thiagarajar College of Engineering (TCE), established in 1957 by philanthropist Karumuttu Thiagarajan Chettiar, is a Government Aided affiliated with Institution Autonomous Anna University, Chennai, and approved by AICTE. TCE offers 11 Undergraduate, 7 Postgraduate, and Ph.D. programs in Engineering, Architecture, and Science. Nestled in a serene, eco-friendly campus, TCE is renowned for its top-tier infrastructure and commitment to academic excellence.

TCE has embraced reforms in its teachinglearning process, including a Competency-Based Curriculum, Outcome- Based Education, and the CDIO framework since 2018, emphasizing hands-on training. The launch of MOOCs in 2021 and the Thiagarajar Research Fellowship (TRF) for Ph.D. scholars underscore TCE's focus on research innovation. Industry collaborations with global leaders, such as TVS Motors, have enhanced curriculum design and established cutting-edge labs like the T S Srinivasan Centre for Automotive **Research**.

TCE's participation in the Technical Education Quality Improvement Programme (TEQIP) under MHRD has driven faculty development, industrysupported research, and governance improvements, solidifying its reputation as a leader in technical education.

### Eligibility

- Industry Professionals
- Faculty members
- UG,PG students & Research Scholars Depts. of ECE / CSE / IT / MCA / M.Sc. from

Engineering Colleges / Arts & Science Colleges / **Universities**.

The Department of Applied Mathematics and **Computational Science of our college offers 5 Year** Integrated M.Sc., (Data Science) Degree Programme from the academic year 2019-2020. This is an interdisciplinary programme covering Applied Mathematics, Statistics and Computer Science. The curriculum of this programme comprises of Theory, Theory cum Practical and Practical Courses. The Programme has foundation courses, Professional core courses, Professional elective courses and employability enhancement courses. The courses are designed by qualified faculty members of our college with the support of professors from Indian Institute of Technology (IIT) Madras, Institute of Mathematical Science (IMS), Chennai and experts from leading software industries.

This programme will enable the students of Data Science to apply suitable techniques and tools to realtime applications drawing on appropriate and relevant concepts and models from the computational sciences. These students will be positioned to pioneer new developments in this field, and to be leaders in Information Technology industry, the public sector, and academia.

**Program Fee:** Rs. 590/- (Rupees Five Hundred & Ninety only) Inclusive of 18% GST Kindly Scan the QR Code or Click the link for registration



### **About the Department**

### **Details of the Workshop are available in the website:** www.tce.edu

https://shorturl.at/YFZ6m

### All Payments Should be made through NEFT

Account Name: TCE SOUVENIOR **Account Number:** 601301902011 **IFSC Code:** ICIC0000563 Bank Name: ICICI Bank **Branch:** TCE Madurai Branch



# **EXPLAINABLE AI (XAI) FOR CYBER SECURITY AND RESILIENCE**

# 16-17, December 2024







**Dept. of Applied Mathematics and Computational Science** 

# **Thiagarajar College of Engineering** Madurai- 625 015 **Tamil Nadu**



www.tce.edu





tce\_madurai







# **ORGANIZED BY**

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# **About the Programme**

The Purpose of this workshop is to helps professionals, cybersecurity **Researchers**, Academicians understand why an Al system made a particular decision or flagged certain activities as suspicious. This transparency is crucial for auditing, compliance, improving the system's and performance. XAI builds trust among users and stakeholders. XAI can help analysts identify new and emerging threats by explaining patterns and anomalies detected by AI algorithms. XAI workshop facilitates human-machine collaboration by enabling cybersecurity analysts to interact with AI systems more effectively. The participants can authenticate, interpret, and refine the outputs of Al systems based on the explanations provided and they can learn many AI algorithms used in cybersecurity, such as deep learning models, can be complex and opaque, making it challenging to generate meaningful explanations without sacrificing accuracy.

### **Topics Coverage**

- Interpretability in Intrusion Detection Systems (IDS)
- **Detection** and • Explainability for Malware Classification
- Cyber Security tools and techniques
- Transparency in User Behavior Analytics (UBA)
- XAI for Data Privacy in Cybersecurity
- Adversarial Attacks and Explainability



Associate Professor, Dept. of AMCS, TCE **Prof.R.Saraswathi Meena** Assistant Professor, Dept. of AMCS, TCE

**Address for Correspondence: Prof.R.Saraswathi Meena Email:** rsmca@tce.edu **Mobile:** +91- 9698392614

Participants are requested to make their own arrangement for travel and accommodation

### **Organizing Committee**

### **CHIEF PATRON**

Mr.K.Hari Thiagarajan Chairman and Correspondent

# PATRON

**Dr.L.Ashok Kumar** Principal

# CONVENOR

**Dr.S.Parthasarathy** HOD-Applied Mathematics and Computational Science (Data Science)

# COORDINATORS

**Dr.T.Chandrakumar** 

### **TRAVEL & ACCOMODATION**

Dr. S. Sumitra Professor Indian Institute of Space Science and Technology Thiruvananthapuram Kerela, India.

# Dr. B. Ramadoss

Former Professor HAG Department of Computer Applications National Institute of Technology, Tiruchirappalli

# Mr. S.Maheswaran

Sr. R&D Manager Aptean India Private Limited Madurai

Dr.M.Vijayalakshmi Professor Dept. of Computer Science and Engineering TCE, Madurai

Dr.C.Jeyamala Associate Professor Dept. of Information Technology TCE, Madurai

Dr.S.T.Padmapriya Dept. of AMCS (Data Science) TCE, Madurai

