

This document contains all information about Shaastra 2025, which one can use to answer any queries related to the Techfest.

**\*\* Day Wise Schedule of Shaastra 2025 \*\***

NIOT DAY 1

JANUARY 3, 2025

Event Venue Time

Hypercube Visual Bash RJN 101 9:00-11:00

Shaastra Juniors: Silent Power RJN 201 9:00-14:00

SJIO Augustine Workshop RMN 101 9:00-17:00

Intro AI and ML Workshop CRC 103 9:00-17:00

Chanakyaneeti CRC 201 14:00-17:00

TIF (Closed Expo: Networking Event) ICSR Hall 4 10:00-16:00

Envisage Show SAC 17:30-18:30

Robowars OAT 7:00-22:00

Laser Tag HSB 133 7:00-22:00

Spotlight Lecture Series: Lecture by Dr. Sanjeev Das CLT 11:00-12:00

Fireside Chat with Dr. Sujatha Ramdorai CLT 15:00-16:00

Bajaj Auto Lecture - Industry Insights ICSR Hall 3 15:00-16:00

Brain Maze KV 9:00-18:00

Caterpillar Autonomy Challenge KV 7:00-22:00

Shaastra Moot Court NAC 222 16:30-18:00

## CATERPILLAR DAY 2

JANUARY 4, 2025

### Event Venue Time

IoT Automation with Raspberry Pi Workshop	RJN 101	9:00-17:00
KLA Lecture - Industry Insights	ICSR Hall 3	11:00-12:00
Launcher	RJN 102	14:00-17:00
Computational Fluid Dynamics Workshop	RJN 201	9:00-17:00
Intro to DL Workshop	RJN 202	9:00-17:00
Basics of Investing Workshop	RJN 301	9:00-17:00
CAD for Industrial Design Workshop	RJN 302	9:00-17:00
Cognify - The Toy Design Contest Finale	HSB 210	9:00-17:00
The Teacher Conference	MRC Hall, Library	15:00-18:00
Future Cities Summit Expo	CLT Lawns and KV	8:30-17:00
IDFC FIRST Bank Lecture - Industry Insights	ICSR Hall 3	14:00-15:00
Cognify - Inclusive Toy Prototype Display	KV Ground	9:00-17:00
CP Potpourri Wildcard	RMN 101,102,201	9:00-10:00
CP Potpourri Finals	RMN 101,102,201	11:00-13:00

BAJAJ AUTO DAY 3

JANUARY 5, 2025

Event Venue Time

Quantathon RJN 101,102 9:00-11:00

Building and Experimenting LLMs Workshop CRC 101 9:00-17:00

App Development Workshop CRC 102 9:00-17:00

Cloud Computing Workshop CRC 103 9:00-17:00

Future Cities Summit ICSR TTJ 9:30-17:30

Tech Entertainment Nights SAC 18:00-22:00

Laser Tag HSB 133 7:00-22:00

Fireside Chat with Dr. Arokiaswamy Velumani CLT 14:00-15:00

Fireside Chat with Mr. Nambi Narayanan CLT 16:30-17:30

Embedded Programming Challenge IE Lab NEW 9:00-12:00

JMT (Build-a-thon) NAC Hall 7:00-21:00

Caterpillar Autonomy Challenge KV Grounds 6:00-21:00

Flipkart Grid Robotics 6.0 Newton Hall 7:00-22:00

Shaastra Moot Court Finals Kalam Hall (ED Dept) 9:30-13:00

Brain Maze KV 9:00-18:00

Product Management Workshop CRC 201 9:00-17:00

Shaastra Main Quiz CRC 202 9:00-14:00

Finvent CRC 204 9:00-13:00

Ignite the Future: Rocket Propulsion Workshop CRC 304 9:00-17:00

Crypto Trading Workshop CRC 305 9:00-17:00

Industrial 24hr Hackathon RJN/RMN Rooms 13:00 onward

Shaastra Smart City Challenge CRC 203 14:00-18:00

Smart Innovation Challenge Finale CRC 204 14:00-18:00

Paper Poster Presentation CRC 205 14:00-17:00

Shaastra Biz Quiz CRC 202 15:00-21:00

Synergy Sustainability Contest CRC 205 9:00 onward

IDFC FIRST BANK DAY 4

JANUARY 6, 2025

Event Venue Time

Reverse CodingX	RJN 101,102	14:00-16:00	
E-Contest	Online	9:00-12:00	
Biotech Frontiers Workshop	RJN 201	9:00-17:00	
C++ Development Workshop	RJN 202	9:00-17:00	
IoT Prototyping with Arduino Workshop	RJN 301	9:00-17:00	
Simulation Techniques in ML Workshop	RJN 302	9:00-17:00	
Industrial 24hr Hackathon Ends	RJN/RMN Rooms	Ends at 13:00	
Blockchain Development Workshop	RMN 301	9:00-17:00	
EV Ecosystem Workshop	RMN 302	9:00-17:00	
Robosoccer	CLT Lawns	9:00-18:00	
Future Cities Summit	ICSR TTJ	9:30-18:00	
NAF's Uzhavu Hackathon	CRC 201	10:00-15:00	
Ecomatrix	CRC 202	14:00-17:00	
BioGENEius Challenge	CRC 203	14:00-17:00	
Brain Maze	KV	9:00-18:00	
Comedy Night	SAC	18:00-22:00	
Robo Oceana	OAT	10:00-18:00	
Laser Tag	HSB	18:00-22:00	
Spotlight	CLT	18:00-22:00	
Reverse Engineering Challenge	IE Lab	14:00-17:00	
Cube Open	UTIL (Near GC)	9:00-18:00	
Petri Dish Challenge	ED	10:00-12:00	
Lecture by Dr. Modadugu Vijay Gupta	CLT	11:00-12:00	
Lecture-cum-Fireside Chat with Prof. Subir Sachdey	TTJ Auditorium	15:00-16:00	

BOEING DAY 5

JANUARY 7, 2025

Event Venue Time

Clash of Codes RJN 101,102 9:00-12:00

Capture the Flag Online 9:00-12:00

Appian AI Challenge RJN 101,102 14:00-17:00

Appian Lecture - Industry Insights ICSR Hall 3 11:00-12:00

Integrated Robotics Workshop RMN 101 9:00-17:00

Quantum Computing Workshop RMN 102 9:00-17:00

Brain Maze KV 9:00-18:00

Maths Intersection Programming Workshop RMN 103 9:00-17:00

UI/UX with Figma Workshop CRC 101 9:00-17:00

Ethical Web Hacking Workshop CRC 102 9:00-17:00

Atom Quest CRC 201,202 9:00-13:00

Robo Run + Robosoccer SAC 9:00-18:00

RIPTIDE Wave Basin 10:00-17:00

Fireside Chat with Hon'ble Justice Shri Dinesh Maheshwari CLT 11:00-12:00

Lecture by Thiru T. Udhayachandran CLT 15:30-16:30

Analog Circuit Design Challenge IE Lab 14:00-17:00

JMT Finals NAC 8:00-18:00

Weird Chess 3.0 Gymkhana 14:00-17:00

Online Lecture by Mr. Satish Pai CLT 17:30-18:30

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**\*\* EVENTS \*\***

The following information is formatted as follows:

Event Name, Sponsor(if any)  
Event Description  
Date, Time, Venue  
Open for viewership (yes/no)  
On-spot registration (yes/no)

Robo Oceana. NIOT.

Robo Oceana is an exhilarating underwater robotics challenge where teams design and deploy advanced robots to conquer marine-inspired tasks.

From navigating underwater terrains to retrieving objects and performing precision tasks, it's a true test of innovation, engineering, and problem-solving. Experience the thrill as cutting-edge tech meets real-world maritime challenges!!

6th January. 10am to 4pm. OAT.

Open for viewership - yes

On-spot registration - no

Boeing Aeromodelling Competition. Boeing.

Boeing Aeromodelling is the ultimate test of aerodynamic innovation and engineering brilliance! Participants design and build high-performance model aircraft to take on exciting challenges like precision gliding, acrobatic manoeuvres, and long-distance flights. With Boeing's legacy of aviation excellence as inspiration, this event pushes creativity and technical skills to new heights.

25th January - 26th January. 10am to 4pm. IIITDM Kancheepuram

Open for viewership - yes

On-spot registration - no

Riptide. NIOT.

Riptide is an exciting new addition to Shaastra, featuring remote-controlled (RC) boats. This event challenges participants to design and operate RC boats capable of completing tasks such as navigating obstacle courses and performing precision manoeuvres. It introduces a fresh avenue for innovation in marine technology and hands-on engineering.

7th January. 10am to 3pm. Wave Basin (ocean engineering department)

Open for viewership - no

On-spot registration - no

SARC. FedEx.

A new event at Shaastra, SARC challenges participants to design autonomous drones capable of performing complex tasks like obstacle navigation and object handling, pushing innovation in aerial robotics.

4th January. 10am to 4pm. SAC.

Open for viewership - no

On-spot registration - no

Flipkart Grid Robotics Challenge 6.0.

Flipkart.

"GRID 6.0 | Smart Vision" challenges participants to design innovative camera vision solutions for quality and quantity testing in e-commerce.

5th January. 9am to 6pm. Newton hall, Aero department.

Open for viewership - yes

On-spot registration - no

Water Rocket challenge.

A thrilling event for school students, the Water Rocket Challenge tasks

participants with designing and launching water-powered rockets to achieve maximum distance, combining creativity with basic principles of physics.

3rd January. 10am to 2pm. Institute Hockey Ground.

Open for viewership - yes

On-spot registration - yes

Petri Dish Challenge. NIOT.

Petri Dish Challenge is a two-day event that challenges participants to identify unknown bacteria through a series of rigorous laboratory experiments.

5<sup>th</sup> January 9am to 12pm BT ug lab. 6<sup>th</sup> January. 10am to 12pm. ED108

Open for viewership - No

On-spot registration - No

Biomimicry: Nature's Best Builders.

This two-round event challenges participants to design innovative, nature-inspired architectural solutions for a sustainable future.

4<sup>th</sup> January. 3pm to 6pm. ED108.

Open for viewership - yes

On-spot registration - no

Clash of Codes. D-link.

Clash of Codes is the ultimate challenge for bioinformatics enthusiasts, combining the thrill of coding with the intrigue of biology.

7<sup>th</sup> January. 9am to 12pm. Rjn 101 and 102.

Open for viewership - No

On-spot registration - no

BioGENEius Challenge.

The BioGENEius Challenge is a premier case study competition that invites students to explore innovative solutions to global challenges using biotechnology.

6<sup>th</sup> January. 2pm to 5pm. CRC203.

Open for viewership - Yes

On-spot registration - no

Paper and Poster Presentation.

"This event offers a unique platform for participants to dive deep into real-world biological and genetic engineering challenges, conduct meaningful research, and showcase their findings.

5<sup>th</sup> January. 2pm to 5pm. CRC205.

Open for viewership - yes

On-spot registration - no

BioIntern Connect

BioIntern Connect is an exciting initiative in connecting students with research internship opportunities in biotechnology professors' labs in just one day.

4<sup>th</sup> January. 9am to 1pm. ED Department, ED-108.

Open for viewership - no

On-spot registration - no

Shaastra Programming Contest. KLA.

This annual Competitive Coding Contest, centered on algorithmic thinking and problem-solving skills, is a flagship event of Shaastra. This year, it debuted as a Starters 164 rated contest on CodeChef, marking a first in its history. With prelims conducted online and offline finals in ICPC style, this premier competition is sponsored by KLA and boasts a prize pool of 1.2 lakh.

4th January. 2PM to 5PM. RMN.

Open for viewership - No

On-spot registration - No

CP Potpourri. IDFC bank.

CP Potpourri blends competitive programming with quirky challenges like code golfing and debugging. Sponsored by IDFC Bank, it's an exciting platform to showcase creativity and skill in unconventional ways. Expect surprises and unique twists in this vibrant coding showdown. CP Potpurri boasts a prize pool of 50000 rupees.

4th January. 11AM to 1PM. RMN.

Open for viewership - No

On-spot registration - No

Reverse CodingX. Avanse.

Uncover hidden logic in this one-of-a-kind event featuring puzzles, brainteasers, and coding challenges. Reverse Coding X demands creative thinking and sharp reasoning as you solve mysteries from given inputs and outputs.

6th January. 2PM to 4PM. RJN.

Open for viewership - No

On-spot registration - No

Quantathon. Avanse.

Love numbers, logic and creative thinking? Thrive on cracking patterns and solving tough problems? Quantathon is the ultimate event for bold thinkers and problem solvers! It includes probability, math and logical thinking challenges.

5th January. 11AM to 1PM. RJN.

Open for viewership - No

On-spot registration - No

E contest. Arcesium.

Step away from conventional coding languages like Java, C++, and Python, and embrace the unexpected in the E-Contest. Here, participants explore esoteric programming languages that challenge both logic and creativity. It's a unique opportunity to broaden your programming horizons and think outside the box, making it a standout event in Shaastra's lineup.

6th January. 9AM to 12noon. Online.

Open for viewership - No

On-spot registration - Yes

CTF. IDFC bank.

Dive into the exciting world of cybersecurity with Capture the Flag, sponsored by IDFC Bank. A high-stakes competition where participants tackle cryptic puzzles, uncover hidden vulnerabilities, and race against time to capture flags. This event is not just about problem-solving; it's an adrenaline-pumping journey into the realm of ethical hacking and security expertise.

7th January. 9AM to 12noon. Online.

Open for viewership - No

On-spot registration - Yes

HyperCube. Visual Bash.

Making its debut this year, Hypercube Visual Bash blends graph theory and 3D geometry into a single, exhilarating competition. Packed with optimization strategies and unique problem formats, this event promises to challenge participants in ways they've never experienced before.

3rd January. 9AM to 11AM. RJN.

Open for viewership - No

On-spot registration - No

Strategic Show Down (Stall Event)

Master the art of strategy in this engaging event where you devise winning plans for a variety of games. Stay ahead of your opponents and outsmart the competition. It's a game of wits where every move counts.

All days.

All time.



Open for viewership - Yes  
On-spot registration - Yes

#### Weird Chess

This is an exciting chess-themed event with a unique twist. The rules will be customized by us!

7th January. 2PM to 5PM. Institute Gymkhana

Open for viewership - No  
On-spot registration - No

#### IndustriAI 24hr hackathon. Temenos.

"Get ready for an intense 24-hour innovation sprint from January 5 to January 6 at IIT Madras. ð Dive into the world of AI/ML, software development, and digital security, tackling intriguing challenges and showcasing your creativity. MacBook for the top 3 winning teams! Whether you're a coding ninja or just starting out, this is your chance to **collaborate**, learn, and push the boundaries of technology.

5th January - 6th January. 1PM 5th January to 1PM 6th January. RMN and RJN

Open for viewership - No  
On-spot registration - Yes

#### Appian AI Challenge. Appian.

We are excited to announce the national Appian AI Application Challenge, a premier event at Shaastra 2025, the annual technical festival of IIT Madras. This competition offers students a unique platform to develop innovative AI-driven solutions to real-world problems, in collaboration with Appian, a leader in process automation and AI integration.

7th January. 2PM to 5PM. RJN.

Open for viewership - No  
On-spot registration - No

#### FedEx SMART Hackathon. FedEx Smart.

Get ready for FedEx SMART Hackathon! Gear up to solve cutting-edge challenges in software development, AI, and sustainable logistics to design smarter, greener delivery systems for a global leader in transportation. Prizes include an internship opportunity with FedEx SMART, IIT Madras. Whether you're a seasoned developer or eager to learn, this is your chance to leave a mark on the future of logistics.

22nd January

Open for viewership - No  
On-spot registration - No

#### Wild Card Round for CP Potpourri

Missed the prelims? Don't worry, here's your chance to secure a spot in the finals through this **exciting** wildcard round! With fresh and innovative challenges revealed on the spot, this event ensures no coder is left behind in the race to compete in CP Potpourri's grand finale.

4th January. 9AM to 10AM. RMN.

Open for viewership - Yes  
On-spot registration - Yes

#### Robowars. IDFC & BAJAJ.

Get ready for an electrifying clash of metal and sparks at Robowars 2025, hosted at Shaastra, IIT Madras! Witness the ultimate showdown as cutting-edge combat robots battle it out for glory. Experience the thrill of roaring machines, strategic manoeuvres, and raw power in an adrenaline pumping arena. Don't miss this spectacular event where technology meets destruction! Join us and be part of the crowd that witnesses the most thrilling event at Shaastra!

3rd January:11 am, 4th January 5:00 pm. OAT.

Open for viewership - Yes

On-spot registration - Yes

Caterpillar Autonomy Challenge. CATERPILLAR.

Attention Tech enthusiasts! Witness the ultimate test of engineering and innovation at the Caterpillar Autonomy Challenge. Watch autonomous rovers conquer obstacles, mine sand, and deposit it with precision and skill. Marvel at the perfect blend of AI, robotics, and problem-solving in action. Don't miss the thrill as these <sup>TM</sup> intelligent machines tackle every challenge thrown their way. 3<sup>rd</sup> and 5th January- 9:00 am. KV ground.

Open for viewership - yes

On-spot registration - No

Robosoccer. NIOT.

Get ready for a thrilling showdown at Robosoccer. Watch as robots showcase their agility, strategy, and precision in passing and scoring goals in the match. Feel the buzz as technology takes centre stage in this unique blend of sport and innovation.

6&7 January. 9:00 AM 6th - CLT area 7th - OAT.

Open for viewership - yes

On-spot registration - yes

RoboRun. NIOT.

Experience the excitement of Robo Run, where talented teams design autonomous robots that navigate complex paths with precision and speed. This event highlights creativity, engineering skills, and innovation. Don't miss this thrilling showcase of technology in action!

7 January. 9:00 AM. SAC

Open for viewership - yes

On-spot registration - yes

Shaastra Smart City Challenge. L&T Edutech.

Transform urban living with cutting-edge innovations! Join us in reimagining cities as smarter, more efficient hubs of technology and progress.

5<sup>th</sup> January. 2pm-6pm. CRC.

Open for viewership - No

On-spot registration - No

Atom Quest. Atomberg.

Solve real-world Mech-Electronics challenges, collaborate with Atomberg's R&D team, and unlock exciting prizes, internships, and career opportunities

07/01/2025. 9am-1pm. CRC

Open for viewership - No

On-spot registration - No

ElecKart. DIGIKEY.

Explore the world of digital electronics in this hands-on event designed for enthusiasts and problem-solvers. Participants will design, build, and optimize digital circuits to meet real-world challenges. From logic gates to complex combinational and sequential systems, showcase your creativity and technical skills. Step into the fast-paced digital domain and bring your ideas to life!

04/01/2025. 2 pm - 5 pm. IE Lab.

Open for viewership - No

On-spot registration - No

EPC. Bajaj.

The Embedded Systems Challenge tests your microcontroller skills, focusing on practical implementation with actuators like servos, LDRs, and sensors, beyond just theoretical knowledge.

05/01/25. 9am to 12 noon. IE Lab

Open for viewership - no

On-spot registration - no

ACDC. Bajaj.

Analog Circuit Design Challenge tests your circuit building skills and your ability to quickly come up with solutions to modify your design so that it starts working!

07/01/25 .2pm - 5pm. IE Lab.

Open for viewership - no

On-spot registration - no

Reverse engineering. NIOT.

Dive into the fascinating world of digital, embedded, and analog systems as you decode and recreate complex circuits. Participants will analyse black-box systems, troubleshoot designs, and reconstruct their functionality using theoretical and practical knowledge. Test your skills in deciphering FSMs, embedded controllers, and analog designs. Unleash your problem-solving abilities and take on this ultimate engineering challenge!

06/01/2025. 2pm - 5pm. IE LAB.

Open for viewership - no

On-spot registration - no

WildCard Challenge.

The Wildcard Round of Elecfest, Shaastra 2025, held at IIT Madras, will be based on Embedded Systems, Analog Circuits, and Digital Circuits. It offers students across India a chance to qualify directly for the finals of Eleckart, Embedded Programming Challenge, Analog Circuit Design Challenge, and Reverse Engineering Challenge. Participants can compete individually or in teams of 2.

04/01/2025. 9am-12pm. IE LAB.

Open for viewership - no

On-spot registration - yes

Shaastra Biz Quiz

Are you ready to test your business knowledge and have a fun time quizzing with us at Shaastra 2025? The Biz Quiz is the perfect event for anyone who loves learning about the world of business and all the fascinating stories it has to offer. Prize Pool: 20,000/-.

5th January. 3PM-9PM. CRC-202.

Open for viewership - No

On-spot registration - Yes

Shaastra Main Quiz

Shaastra Main Quiz, the centrepiece of Shaastra's quiz lineup; is one's chance to showcase their abilities in the realm of sci-tech quizzing, and demonstrate their prowess when facing off against other such enthusiasts. Prize Pool: 20,000/-

5th January. 9AM-12PM. CRC-202.

Open for viewership - No.

On-spot registration - Yes.

Shaastra Cube Open Cubelelo.

The team of Shaastra, IIT Madras, brings you a Rubik's cube competition, Shaastra Cube Open. Get ready to put your **muscle** memory and spatial thinking skills to the test. With 5 events - 3x3, 2x2, 4x4, One Handed, Skewb, and a Team Relay event where you get to challenge your coordination and understanding with fellow cubers. Prize Pool: 30,000/-

6th January. 9AM-6PM. UTIL.

Open for viewership - No

On-spot registration - Yes

AT-Makeathon. R2D2.

The event's primary goal is to provide an effective solution by combining students' innovative ideas with the resources of R2D2. By implementing successful prototypes designed by students, we aim to enhance the quality of life for the elderly, adults, and children with disabilities. Prize Pool: 90,000/-.

6th January. 2PM-6PM. CRC 304.

Open for viewership - No

On-spot registration - No

Moot Court. Surana & Surana.

One of the premier events at Shaastra, sponsored by Surana & Surana international Attorneys, is the Moot Court competition. Participants engage in simulated court proceedings, drafting memorials, and presenting oral arguments.

Registration Deadline: December 18

Prize Pool: 85,000/-

3rd January -5th January 9AM-6PM. Day 1: CRC 101. Day 2: CRC 103,201-205,304,305.

FINALS (Day 3): ED SEMINAR HALL"

On 5th viewers are allowed

On-spot registration - No

## \*\* WORKSHOPS \*\*

All workshops, independent of passport, need to be registered for individually.

The following information is formatted as follows:

Workshop Title

Description

Venue Date

Trainer Name

Session -1-time Session - 2 time

Registration fee

Registration end date (MM-DD-YYYY)

### Full stack development

In a technology-driven era, Full Stack Development stands at the forefront of building robust and scalable digital solutions. This workshop offers a comprehensive introduction to both front-end and back-end development, equipping participants with the knowledge to design and implement end-to-end web applications. From mastering HTML, CSS, and JavaScript to understanding server-side programming, databases, and APIs, attendees will get hands-on experience with the tools and technologies shaping modern software development. Whether you're aspiring to be a versatile developer or simply exploring a career in tech, this workshop provides the foundation to build your first full-stack project and beyond.

CRC102 January-04

Shivaram

9:00 to 12:00|14:00 to 17:00

649/-

01-03-2025

### Product Management

In today's product-driven world, successful products drive market growth and innovation, making Product Management a crucial role in any digital company. Product Managers play a key role in overseeing a product's journey from concept through to launch and beyond. This workshop is designed to introduce the idea of Product Management so they can make informed career decisions.

CRC 201 January-05

Karan Gohil

9:00 to 12:00|14:00 to 17:00

499/-

01-04-2025

### Integrated Robotics: Mechanics to Automation

The ""Integrated Robotics Workshop"" is designed to provide participants with a deep understanding of the various application-specific robotics and explore the fundamental ideas and methods for building and operating robots effectively

RMN 101|January-07

Prashanna Rangan R

9:00 to 12:00|13:00 to 16:00

649/-

01-06-2025

### Biotech Frontiers: Discover to Destiny!

Dive into the world of modern biotechnology with this hands-on workshop exploring key segments like green, red, and computational biotechnology. Engage

in practical lab activities, analyse Nobel-winning research, and learn bioinformatics tools to solve real-world challenges.

RJN 201|January-06

Krishna K

9:00 to 12:00|14:00 to 17:00

499/-

01-05-2025

Computational Fluid Dynamics

Computational Fluid Dynamics (CFD) is a vital tool in academia and industries like aerospace and environmental engineering. This workshop equips students with practical skills and insights into using CFD to solve real-world fluid flow challenges.

RJN 201|January-04

Ritu Raj

9:00 to 12:00|14:00 to 17:00

499/-

01-03-2025

Cad for industrial design

This workshop explores industrial design concepts through hands-on CAD software (SolidWorks and OnShape) applications. Participants will learn design thinking, brainstorming, and rapid prototyping while creating 3D models and 2D drafts adhering to ISO and ANSI standards. It covers material selection, manufacturing processes, and collaborative assembly building. Emphasis is placed on ergonomics, quality control, and product lifecycle management for user-centric design.

RJN 302|January-04

Prashanna Rangan R

9:00 to 12:00|14:00 to 17:00

499/-

01-05-2025

Ignite The Future: Rocket Propulsion Workshop

Hands-on experience with rocket simulation software like OpenRocket and learn the theory, calculations, and science behind rocket design. We'll also explore Fusion 360, a powerful tool for creating CAD models of rockets and their components.

CRC 304|January-05

Siddhesh Yadav

9:00 to 12:00|14:00 to 17:00

649/-

01-04-2025

Quantum Computing

In this workshop, we aim to introduce you to the world of quantum computation by taking you through the fundamentals of realizing a quantum computer as well as tackling some problems using by implementing quantum algorithms on well-known quantum software.

RMN 102|January-07

Krishna

9.00 to 12.00|13.00 to 16.00

649/-

01-06-2025

C++ Development

C++ is widely known as a language which provides a lot of freedom to the

programmer, a freedom which can often cause hard-to-detect errors with deadly consequences. The workshop aims to explain often overlooked features of C++ which can help users write maintainable, safe, and descriptive code.

RJN 202|January-06

Hari Haran Naveen

9.00 to 12.00|14.00 to 17.00

649/-

01-05-2025

#### Building and Experimenting LLMs

The ""Building and Experimenting with LLMs"" workshop by IIT Madras offers a hands-on introduction to Generative AI and Large Language Models (LLMs). Led by experts Parthasarathy and Dr. Mahesh Balan, the workshop covers key concepts like prompt engineering, OpenAI Playground experimentation, and retrieval-augmented generation (RAG). Participants will gain practical skills to explore and apply LLMs effectively, equipping them to build innovative AI solutions for real-world challenges.

CRC 101|January-05

Mahesh Balan

9.00 to 12.00|14.00 to 17.00

649/-

01-04-2025

#### Implementing AI using Microsoft Azure

This hands-on workshop provides participants with comprehensive insights into implementing Artificial Intelligence (AI) solutions using Microsoft Azure. It covers Azure AI Services, including computer vision, natural language processing (NLP), and generative AI. Participants will explore Azure's tools and platforms to create innovative AI applications. The sessions are structured to combine theoretical concepts with practical labs, offering an engaging learning experience. Designed for participants with diverse backgrounds, this workshop equips attendees with the skills to leverage AI technologies effectively, even with minimal prior expertise in the field.

RJN 202|January-04

Piyush Wairale

9.00 to 12.00|14.00 to 17.00

649/-

01-03-2025

#### IoT Prototyping with Arduino

This workshop on ""IoT Prototyping with Arduino"" introduces participants to the fundamentals of building smart, connected devices using the Arduino platform. Designed for beginners and enthusiasts, the session provides hands-on experience with Arduino boards and sensors to create functional IoT applications. By integrating sensors, actuators, and connectivity modules, attendees will gain practical skills in designing IoT projects and controlling devices over the internet.

RJN 301|January-06

9:00 to 12:00|14:00 to 17:00

649/-

01-05-2025

#### Maths Intersection Programming

This workshop explores fascinating mathematical concepts and their computational applications using Python libraries like NumPy, Matplotlib, Manim, and Turtle. Participants will engage in coding and theory, covering five key topics: optimization, linear algebra, probability, geometry, and calculus.

RMN 201|January-07

9:00 to 12:00|13:00 to 16:00  
649/-  
01-06-2025

#### Intro to DL Workshop

Embark on a journey into the world of Deep Learning with this comprehensive workshop. Explore the foundations of neural networks, master key concepts like forward and backward propagation, and gain hands-on experience building and training models using PyTorch. Dive into advanced topics such as CNNs, transfer learning, and their real-world applications.

CRC101|January-04

9:00 to 12:00|14:00 to 17:00  
649/-  
01-03-2025

#### Simulation Techniques and Estimation in ML

This workshop explores intriguing statistical problems with surprising outcomes, showcasing how simulation provides practical and insightful solutions. Learn to write simple, efficient simulation codes that outperform numerical methods in tackling complex real-world challenges.

RJN 302|January-06

9:00 to 12:00|14:00 to 17:00  
649/-  
01-05-2025

#### Basics of Investing

This workshop provides an overview of finance and investment essentials, covering topics such as money management, investment types, risk and return, diversification, mutual funds, and SIPs. It also explores financial goal setting and career opportunities in finance. The session includes practical insights and an interactive Q&A to enhance financial literacy and decision-making.

RJN 301|January-04

9:00 to 12:00|14:00 to 17:00  
649/-  
01-03-2025

#### Crypto Trading

Unlock the world of cryptocurrency trading with this comprehensive workshop! Learn the fundamentals of blockchain, market analysis, and trading strategies, while mastering tools and risk management techniques. Explore advanced concepts like DeFi, leverage, and futures trading. Gain the knowledge to navigate crypto markets with confidence and avoid common pitfalls.

RJN 301|January-05

9.00 to 12.00|14.00 to 17.00  
649/-  
01-04-2025

#### App Development

This workshop on App Development introduces participants to the fundamentals of Flutter, enabling them to create cross-platform mobile applications. It combines theoretical insights with hands-on practice, covering topics such as setting up the development environment, understanding Flutter's architecture, and exploring essential widgets and layout techniques. Participants will design user interfaces, implement app logic, connect to APIs for dynamic data, and learn debugging and deployment processes. By the end of the workshop, attendees will have built a functional app and acquired foundational skills to further explore Flutter development.



CRC 102|January-05  
9.00 to 12.00|14.00 to 17.00  
649/-  
01-04-2025

#### Blockchain development

Transform your React skills into Web3 development! Join us for a hands-on workshop where you'll learn blockchain fundamentals, smart contracts with Solidity, and how to build your first decentralized application (DApp). Through practical examples and guided exercises, you'll bridge the gap between traditional frontend and blockchain development. Limited seats available - join the Web3 revolution!

RMN 301|January-06  
9.00 to 12.00|14.00 to 17.00  
649/-  
01-05-2025

#### Intro to AI and ML

This workshop offers a comprehensive introduction to AI and ML, highlighting their real-world applications, core concepts, and practical workflows. Participants will gain a solid understanding of datasets, algorithms, neural networks, and ethical challenges in AI. Through hands-on activities, they will implement ML models, visualize results, and explore their applications in industries like healthcare, finance, and retail.

CRC 103|January-03  
9.00 to 12.00|14.00 to 17.00  
499/-  
01-02-2025

#### From Motors to Wireless Charging: The EV Ecosystem

Electric Vehicles (EVs) represent a paradigm shift in the automotive industry, driving the transition towards sustainable and efficient mobility. This workshop explores the EV ecosystem, covering advancements in technology, components like electric motors and power electronics, and emerging trends such as wireless charging, IoT integration, and nuclear batteries. Practical demonstrations of mid-drive and hub motor technologies will provide real-world insights into EV systems.

RMN 302|January-06  
9.00 to 12.00|14.00 to 17.00  
499/-  
01-05-2025

#### IoT Automation with Raspberry Pi

This workshop provides a comprehensive introduction to Internet of Things (IoT) automation using Raspberry Pi and Node-RED, offering a hands-on experience. Participants will learn how to set up and program a Raspberry Pi, use sensors and actuators, and build IoT dashboards and applications using Node-RED. The sessions will also cover IoT protocols and REST APIs, providing a strong foundation for IoT projects.

RJN 101|January-04  
9.00 to 12.00|13:00 to 16:00  
649/-  
01-06-2025

#### UI/UX with Figma

This workshop offers a foundational understanding of modern web design principles, combining theory with hands-on practice. Participants will explore

responsive design, UI/UX guidelines, accessibility standards, and user-centered design techniques. By learning to analyse effective design, balance aesthetics with usability, and apply best practices, attendees will gain valuable insights into creating engaging and functional digital interfaces. The workshop also highlights current trends and emerging technologies, equipping participants with practical skills to tackle real-world web design challenges.

CRC 101|January-07

9.00 to 12.00|13:00 to 16:00

649/-

01-06-2025

#### Cloud Computing

This workshop introduces the fundamentals of cloud computing, covering virtualization, Git, GitHub, and the basics of Continuous Integration/Continuous Deployment (CI/CD). Participants will explore cloud tools like GitHub Actions, Codespaces, and Docker, learning to build and deploy applications using containerized environments. The hands-on sessions focus on practical skills such as hosting backend systems with containers, providing in-demand expertise for the cloud-driven job market.

CRC 103|January-05

9.00 to 12.00|14.00 to 17.00

649/-

01-04-2025

#### Ethical Web Hacking

This Cybersecurity Workshop introduces participants to the fundamentals of ethical hacking and bug bounty programs, empowering them to identify vulnerabilities and contribute to a safer digital landscape. It covers key topics such as networking basics, web application architecture, reconnaissance techniques, and the exploitation of vulnerabilities like XSS and SQL injection. Through practical, hands-on sessions, participants will gain valuable skills in ethical hacking, responsible disclosure practices, and using tools like Burp Suite, making it an ideal learning experience for aspiring cybersecurity enthusiasts.

CRC 102|January-07

9.00 to 12.00|13:00 to 16:00

649/-

01-06-2025

#### Sijo Augustine workshop on Rocketry

In a world racing ahead with breakthroughs in Launch Vehicles and Space Technologies, where ISRO has soft-landed on the Moon and SpaceX is catching rockets mid-air with "chopsticks," the impossible in aerospace is now closer than ever. Step into the fascinating world of rocketry and space tech through this exciting workshop - your gateway to exploring the future of aerospace innovation!

RMN 101|January-03

9.00 to 12.00|14.00 to 17.00

0/-

01-02-2025

**\*\* LABS \*\***

The following information is formatted as follows:

Title

Description

Venue

Start Time| End Time

Department

**Interface lab**

INTERFACE lab works on multi-disciplinary problems cutting across mechanics of materials, bio-inspired robotics, using experiments, theory and simulation. The lab hosts in-house 3D printing and fabrication facility to develop experimental set-ups and is currently developing new frameworks for control of large degree of freedom robotic systems.

KCB (NAC1)

02:00PM|04:00PM

Applied Mechanics and Biomedical Department

**Automotive Systems Lab**

This lab would demonstrate typical systems found in automobiles such as engine, transmission, steering, suspension and brakes.

Department of Engineering Design

09:30AM|05:30PM

Department of Engineering Design

**Optomechatronics Laboratory**

Optomechatronics Laboratory focuses on applications of LASERs in Processing and Sensing

Engineering Design Block ED217

9:00AM|5:00PM

Department of Engineering Design

**Robotics Laboratory**

One will be able to interact with different types of Industrial robots.

ED404,3rd Floor, Engineering Design Building

9:00AM|5:00PM

Department of Engineering Design

**AMSS lab (Active Materials, Structures and Systems Lab**

SMART MATERIALS LAB

Mechanical Sciences Block (MSB)

08:00AM|10:00PM

Applied Mechanics and Biomedical Department

**Biomedical Ultrasound Lab (BUSi Lab)**

Our research interests and projects revolve around developing novel Ultrasonic Methods, including Ultrasound Elastography, for diagnostics, therapeutics, biopsy guidance and treatment monitoring applications. We are also interested in

high-frequency, pre-clinical, ultrasound imaging and multi-modality imaging, including, Photoacoustics. We are also working on exploiting different applications of acoustic radiation force (ARF).

Recent efforts have been on developing Affordable yet advanced ultrasound imaging systems for various applications.

MSB 204

10:00AM|05:00PM

Applied Mechanics and Biomedical Department

#### Protein Biophysics Lab

Our research areas are broadly classified as:

1. Experimental Characterization of Protein Conformational Behaviour and its Relation to Function: Our primary aim is to understand the mapping of protein sequence onto the structure and hence onto the function. Since protein function is the overriding force that drives the evolution of protein sequences, we are currently studying a collection of homologous transcription factors (both ordered and disordered) to identify the extent to which function and its structural requirements influence the folding mechanistic features of proteins.
2. Modelling and Predicting Folding Landscapes using Statistical Models: Protein folding studies, however complex, are typically interpreted with simple two state or three-state chemical models. On the other hand, theoretical treatments of folding point to the fact that the polymeric chain can sample multitudes of conformations (microstates) and that the folded-functional structure is just one among many that could be populated. It is of course possible that this complexity has been simplified through natural selection, thus eventually resulting in a simple two-state or three-state-like folding. But trying to understand folding mechanisms from these chemical models would trivialize the problem and hide the mapping of sequence patterning on the folding features. We are currently building a web server that takes solely the protein structure as input and predicts multiple folding-related features using this model (in a few hours). Experimentalists could employ the output to better understand the folding mechanism, fine-tune their experiments, or identify novel avenues in their approaches.

3. Understanding Protein Folding and Dynamics through Simulations: We perform both conventional and replica-exchange molecular dynamics (MD) simulations of proteins (thanks to GROMACS). Because they are time-consuming, we are currently employing them as tools to validate the predictions of statistical models in cases where experiments are not immediately possible and to also look for any consistency with experimental results. We perform coarse-grained (CG) simulations (thanks to the SMOG web server) to improve sampling and to obtain seed points for atomistic MD. We have recently shown that CG simulations are powerful enough, if carefully calibrated against experimental observables, to identify partially structured states that are functionally relevant, i.e. evidence for the mechanism of conformational selection in binding"

Room no. 103, 1st Floor, Department of Biotechnology Block 2

2:00 pm |4:00 pm

Department of Biotechnology

#### Rehabilitation Bioengineering Group

RBG Labs is an interdisciplinary group with competencies in Human Factors and Transportation, Innovation & Lean Operations and Medical Devices & Implants. We are pioneers to objectively evaluate driver performance and behaviour. We work with multiple stakeholders from Government and Industry to develop innovative solutions to improve road safety in the Country.

Engineering Design Block, ED407

11:00AM|1:00PM

Department of Engineering Design

Centre of Excellence for Zero Emission Trucking (CoEZET)

The Centre of Excellence for Zero Emission Trucking (CoEZET) is a nodal centre for enabling the transition to Zero Emission Trucks in our country.

Department of Engineering Design

09:30AM|05:00PM

Department of Engineering Design

Computational systems biology

Just like humans live in communities with various groups of races, ethnicity and nationality living together, microbes also live in communities. They co-operate and compete with each other to survive in the environment. The goal of systems biology lab is to study those microbes and how they sustain in the community. How they influence humans is also one of the major goals of our lab. We have worked on gut, corals, hydrothermal vents, space, and city microbiome.

Biotechnology Block, 2nd Floor 201

11:00AM|2:00PM|

Department of Biotechnology

Applied Nanostructure Engineering and Nano chemistry

We work in the area of nanomaterials for

- (i) solar energy harvesting and conversion,
- (ii) energy storage (supercapacitors, hybrid energy storage systems),
- (iii) clean hydrogen production at low temperatures:

<https://sites.google.com/view/tiju-thomas>

Materials Processing Section, MME, IIT Madras

09:00AM|05:00PM

Department of Metallurgy

Creative Design Laboratory

Clay modelling and Painting

ED108, Ground Floor, Engineering Design Building.

9:00AM|5:00PM

Department of Engineering Design

Global Water and Climate Adaptation Centre (ABCD Centre)

The Global Water and Climate Adaptation Centre at Aachen, Bangkok, Chennai, Dresden addresses the **pressing** issue of humanity's adaptation to the consequences of climate change **with** a special focus on water. As a joint effort between leading scientific institutions, it enables a global dialogue, the transfer of research results into practice and the education of future environmental leaders.

231, 2nd floor, NAC II

9:00AM|5:00PM

Centre of Excellence

CODE

A Session on opportunities within IIT Madras, which doesn't require JEE

CRC 301

10:00AM, 2:00PM|12:00PM, 4:00PM

CODE

National Technology Centre for Ports, Waterways, and Coasts

National Technology Centre for Ports Waterways and Coasts (NTCPWC) has established a wave basin of size 65 m x 90 m x 2 m with working water depth of 1.25m. The multidirectional wave basin is equipped with modular wave generator

that consist of 152 Wavemakers. The wavemakers consists of 19 modules, each module consists of 8 wave paddles with a 0.4m width. These modules can be interconnected or can act as a separate entity. The wavemakers can be moved anywhere inside the facility to create the basin/flume size depends upon the project requirements.

Room Number 3,4, Ground Floor, Port Centre.

9:00AM|5:00PM

National Technology Centre for Ports, Waterways, and Coasts

Geomechanics Lab

Advanced geomechanically characterization laboratory for soils and gas hydrates  
Room No.139, Ground Floor, Building Sciences Block

9:00AM | 5:00PM

dept18

INSPIRE Lab

INSPIRE Lab develops robotic systems for image-guided interventions.

Engineering design department

10:00AM|01:00PM

Department of Engineering Design

MST

Anatomy, physiology

NAC 2

9:00AM|12:00PM

Department of Biotechnology

DAWN Lab

DAWN lab works in the field of programmable networks and 5G communications field.

Subramanian Shankar Block (SSB) - CSE

10:00AM|05:00PM

dept10

Mechatronics Laboratory

Mobile Planetarium + Science Exhibition (Tamil Nadu Science and Technology Centre)

Room No.107,207, Engineering Design Building

09:00AM|05:00PM

Department of Engineering Design

Pavement Laboratory

Exploring the science behind pavement: Ensuring stronger and safer roads

Room No.103, Ground Floor, Building Sciences Block

10:00AM|4:00PM

dept18

Driving Simulator Laboratory

Showcases advanced equipment's used for driver training and safety studies.

Room No.106 Ground Floor Building Sciences Block

10:00AM|4:00PM

dept18

#### Recycled Aggregates Laboratory

Recycled Aggregates Laboratory: Innovating Sustainable Solutions for Tomorrow's Roads

Room No.107B,107C, Ground Floor, Building Sciences Block

10:00AM|4:00PM

dept18

#### Geotechnical Engineering Main Lab

Basic physical and mechanical characterization laboratory for soils

Room No.148 Ground Floor, Building Sciences Block

9:00AM|5:00PM

dept18

#### Structural Engineering Lab (SEL)

Structural Engineering Lab (SEL@iitm) conducts research related to behaviour and design of various structures like buildings, bridges, towers, etc. using material like steel, concrete, glass, or composites. Experimental testing facilities include full-scale beam and column (600 Tonnes) testing machines, large shake table to study seismic behaviour, blast load testing, fire testing, prestressing strand testing, etc. Theoretical research includes computational mechanics, mechanical metamaterials, origami engineering, earthquake engineering, finite element studies of structures, etc.

Ground Floor, Structural Engineering Block

9:00AM|5:00PM

dept18

#### Geo Synthetics Lab

Physical models of geo-reinforced soils and elemental testing

Room No.139 Ground Floor, Building Sciences Block

9:00AM|5:00PM

dept18

#### Rock Mechanics Lab

Rock strength testing laboratory with advanced equipment

Room No.127, Ground Floor, Building Sciences Block.

9:00AM|5:00PM

dept18

#### Environmental Engineering Lab

Greetings! There are lots of fun filled activities at our Envi labs. Few of them are:

Bring your 1 litre ground water and get your water quality report!

Coke to water: A recycling journey via RO Cooking Microwave - suitable for dye removal/ water treatment too.

Do an awesome soil health test with us.

Check out our fantastic prototypes on BSF larvae and compost, plastic pyrolysis and Ecofert. A cool electrochemical treatment for textile effluents, Wow!

Could incredible algae treat dairy wastewater?

Oh no, microplastics in paper cups.

Oops, how emerging pollutants are messing with zebrafish.

Can your waste power up your homes - Waste to Energy Biogas plants!

Learn about incredible constructed wetlands, amazing jar tests and impressive dual media bucket filter! A mini metaphorical model - view different components of the Earth's systems.

And many more...

Don't miss it!!!

Room Nos.304,319,315,316,346,362, New Academic Complex-2

10:00AM|5:00PM

dept18

#### Scanning Electron Microscopy

Visually seeing the tiny features which are ranging in size less than the thickness of the hair to atoms

MSB 103A, Ground Floor, Mechanical Sciences Block

9:00AM|5:00PM

Department of Metallurgy

#### Hydraulics and water resources engineering lab

This lab conducts experiments to understand the flow, measurement, and dynamics of water in open channels and pipes.

New Academic Complex-2, 14B, Ground Floor

9:00AM|5:00PM

dept18

#### Mechanical performance of Civil Engineering Materials (MPCEM) Lab

The Mechanical Performance of Civil Engineering Materials (MPCEM) Lab is a specialized laboratory designed to assess the strength, durability, and overall performance of various construction materials used in civil engineering. This lab focuses on testing materials such as concrete, steel, and composites to evaluate their mechanical properties under different conditions. Common tests conducted in the lab include tensile strength, compressive strength, fatigue, and impact testing. The lab is equipped with state-of-the-art instruments, including universal testing machines, and compression testers, enabling precise analysis of material behaviour. Research and experiments in this lab are crucial for ensuring the structural integrity, safety, and longevity of engineering projects. The results inform material selection, design optimization, and the development of new materials and construction methods.

101A, Ground Floor, Building Sciences Block

10:00AM|5:00PM

dept18

#### Casting Yard

The lab will provide hands-on experience related to construction materials such as cement, aggregate, concrete.

Ground Floor, Building Sciences Block

10:00AM|5:00PM

dept18

#### VR Lab

The lab develops Virtual Reality Scenarios for Construction site and leverages the technology to design training programs for construction workforce.

BSB 207, First Floor, Building Sciences Block

11:00AM|5:30PM

dept18



## **Shaastra Future Cities Summit**

### **Preface**

We proudly present the Shaastra Future Cities Summit. The summit serves as a platform where visionaries, professionals, and enthusiasts converge to navigate the intricate landscape of future cities. This conference is a collective endeavor to shape the future of urban spaces.

Our distinguished lineup of speakers, thought leaders, and experts spans the vast spectrum of technology, law, architecture, urban planning, and sustainability. Through engaging lectures, panel discussions, fireside chats, and interactive workshops, we aim to foster a dynamic dialogue that transcends disciplinary boundaries.

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### **Schedule Overview**

#### **Day 1: January 4th**

- **9:30 AM to 10:30 AM:** Verification, ID card distribution, and Inauguration Ceremony
- **10:30 AM to 11:30 AM:** Lecture: "Integration of Industry Partners with Academic Institutions in the Planning and Development of Smart and Future Cities"
  - *Speaker:* Mr. Kok-Chin Tay, Chairman, Smart Cities Network
- **11:30 AM to 12:30 PM:** Lecture: "Low Carbon Computer Coding - The Future of Sustainability"
  - *Speaker:* Mr. Ian Chew, Founder, Greenie Web
- **12:30 PM to 1:30 PM:** Networking Lunch
- **1:30 PM to 2:30 PM:** Lecture: L&T Representative
- **2:30 PM to 3:30 PM:** Lecture: Ms. Aswathy Dilip, Managing Director, ITDP India
- **3:30 PM to 4:30 PM:** Panel Discussion: "Reimagining Urban Futures: Mobility and Technology"
  - *Panelists:* Dr. Ashish Verma, Dr. Satya Chakravarty, Ms. Aswathy Dilip, L&T Edutech Representative
- **4:30 PM to 6:00 PM:** Workshop: Astrikos AI

#### **Day 2: January 5th**

- **9:30 AM to 10:30 AM:** Fireside Chat: Mr. Steven Metzler and Ms. Julia McCarthy

- **10:30 AM to 11:30 AM:** Lecture: "AI-Driven City Unified Operations"
  - *Speaker:* Dr. Chinmay Hegde, CEO, Astrikos AI
- **11:30 AM to 12:30 PM:** Lecture: "Resilient Cities and Human-Centered Approach"
  - *Speakers:* Mr. Shravan Bendapudi and Mr. Aditya Goel, Gensler
- **12:30 PM to 1:30 PM:** Networking Lunch
- **1:30 PM to 3:00 PM:** Event by the Centre of Excellence for Road Safety
- **3:00 PM to 4:00 PM:** Lecture: Dr. Satya Chakravarty
- **4:00 PM to 5:30 PM:** Panel Discussion: "Planning Resilient and Sustainable Future Cities: The Role of Public-Private Collaboration in Energy Systems"
  - *Panelists:* Dr. Chinmay Hegde, Dr. Ashwin Mahalingam, Dr. Prashant Anand, Ms. Surjyatapa Ray, Surana & Surana Representative

### **Day 3: January 6th**

- **9:30 AM to 11:30 AM:** Workshop: Gensler
- **11:30 AM to 12:30 PM:** Lecture: "Net Zero for Buildings and Built Environment"
  - *Speaker:* Mr. Sampath Kumar, Counselor, CII-IGBC
- **12:30 PM to 1:30 PM:** Lecture: "Disaster Recovery in Cities"
  - *Speaker:* Ms. Suchismita Goswami, PhD Fellow, University of Copenhagen
- **1:30 PM to 2:30 PM:** Networking Lunch
- **2:30 PM to 3:30 PM:** Lab Tours
- **3:30 PM to 4:30 PM:** Expo Tour
- **5:00 PM to 6:00 PM:** Closing Ceremony

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## **Highlights**

### **Day 1 Highlights**

- Kick-off with an impactful Inauguration Ceremony
- Keynote lecture by Mr. Kok-Chin Tay on integrating industry with academic institutions for future city planning.
- Inspiring sessions on sustainability and urban mobility.
- Workshop by Astrikos AI focusing on cutting-edge applications in urban planning.

### **Day 2 Highlights**

- Fireside chat exploring visionary concepts in future cities.
- Insights into AI-driven city operations and resilient city design by Gensler experts.
- Panel discussions on public-private collaboration in energy systems.

### Day 3 Highlights

- Workshop by Gensler on practical approaches to resilient city planning.
- Lectures on Net Zero for buildings and disaster recovery strategies.
- Immersive lab tours and expo showcasing innovations in urban development.

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### Notable Speakers

- **Mr. Kok Chin Tay:** Chairman, Smart Cities Network. Expertise in smart city development across ASEAN nations.
- **Ms. Aswathy Dilip:** South Asia Director, ITDP, specializing in sustainable and inclusive urban mobility.
- **Mr. Shravan Bendapudi & Mr. Aditya Goel:** Gensler leaders in workplace design and resilient city strategies.
- **Ms. Suchismita Goswami:** PhD Fellow, University of Copenhagen, focused on urban disaster recovery.
- **Mr. Sampath Kumar:** CII-IGBC, expert in carbon-neutral urban development.

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### Esteemed Partners

Our partners are pivotal to the success of the Shaastra Future Cities Summit, bringing expertise, resources, and vision to this transformative event.

**\*\*Expo\*\***

Advanced technologies such as AI/ML, Cloud Computing, Blockchain, and Augmented Reality; are revolutionizing the landscape of Industry 4.0. The integration of such technologies into manufacturing plants is leading to the transformation of industries into smart factories.

The Exposition (Expo) at IndustriAI offers a platform for companies, particularly startup ventures, to showcase pioneering innovations and disruptive technologies in smart manufacturing. This presents a unique opportunity for companies to elevate their brand, network with industry leaders, and boost their visibility in the market.

The organizing team invites companies and emerging startups to exhibit their products/services, working prototypes, or promote via digital marketing. The conference presents a scope for potential partnerships and collaborations, capturing investor interest, and securing financial support.

**\*\*Paper submission guidelines\*\***

Full Paper Submission

General Instructions

• Only those authors whose abstracts are accepted for the conference, are eligible to submit full paper. • The paper must be presented at the conference in-person by one of the listed authors (preferably the presenting author), in order to be considered for review. If the paper is not presented at the conference, it will not be considered for the proceedings. • It is mandatory for the presenting author to register for the conference, before the registration deadline. Authors are not allowed to present their paper without registration. • Co-authors (authors excluding the presenting author) who are listed in the paper, but are not presenting the paper at the conference; have the option of attending the conference as a delegate. However, a co-author needs to register for the conference if he/she chooses to attend.

• Registrations can be done via the link: ,  
<https://industriai.shaastra.org/register>

Upon successful registration, authors will be advised on the next steps: payment of registration fees, verification, etc. via email. • Each paper will be reviewed by the technical committee. Reviews are traditional single-blind peer reviews where the identity of the reviewer is not visible to the author(s). Note: All submissions will be screened for plagiarism as part of the review process. • Only those papers which are selected upon completion of the peer review procedure, will be published in the conference proceedings.

#### Guidelines for Paper submission

• All submissions must be written in English. ,

• All papers must be original, unpublished work. Papers either submitted or published at other international/national conferences, symposia, or journals; will NOT be considered. • All papers must be submitted via the official website: ,

<https://industriai.shaastra.org/> Submissions via email or other modes will NOT be accepted. • The length of the paper should not exceed 10 pages; including all text, tables, figures, and references. Authors are encouraged to use the recommended space to explain their work in a concise and effective manner.

Note: A page refers to A4 standard size.

• Authors can refer to this template for preparing their papers.

• Papers must be submitted in PDF format.

#### Info to be entered in the website

• Abstract number, Presenting author, Designation, email, Affiliation, Contact number

• Add option for adding co-authors,

• Title of the paper,

• Upload abstract acceptance proof (screenshot/mail in PDF),

• Upload manuscript in PDF,

**\*\*IndustriAI: An International Research Conference on Smart Manufacturing\*\***

**Tentative Agenda**

5 January 2025

**Time slot Program/Event**

8.30 AM - 9 AM Distribution of welcome kit to delegates  
9 AM - 9.15 AM Introductory remarks  
9.15 AM - 9.30 AM Welcome Address  
9.30 AM - 9.45 AM Address by Director and introduction to Chief Guest  
9.45 AM - 10 AM Inauguration of Conference by Chief Guest and other dignitaries; lighting of lamp  
10 AM - 10.20 AM Address by Chief Guest  
10.20 AM - 10.30 AM Vote of thanks  
10.30 AM - 11 AM High tea & Networking  
11 AM - 12 PM Keynote lecture 1  
12 PM - 12.30 PM Plenary talk 1  
12.30 PM - 1 PM Plenary talk 2  
1 PM - 2 PM Networking lunch  
2 PM - 3 PM Panel discussion 1  
3 PM - 4.30 PM Oral presentation session  
4.30 PM - 5 PM Tea and refreshments  
5 PM - 6.30 PM Poster presentation session & Expo/product showcase  
6 January 2025

**Time slot Program/Event**

8.30 AM - 9 AM Plenary talk 3  
9 AM - 9.30 AM Plenary talk 4  
9.30 AM - 10.30 AM Keynote lecture 2  
10.30 AM - 11 AM High tea  
11 AM - 11.30 PM Plenary talk 5  
11.30 AM - 12 PM Plenary talk 6  
12 PM - 1 PM Panel discussion 2  
1 PM - 2 PM Networking lunch  
2 PM - 4.30 PM Oral presentation session  
4.30 PM - 5 PM Tea and refreshments  
5 PM - 6.30 PM Poster presentation session & Expo/product showcase

7 January 2025

**Time slot Program/Event**

8.30 AM - 9 AM Plenary talk 7  
9 AM - 9.30 AM Plenary talk 8  
9.30 AM - 10.30 AM Keynote talk session 3  
10.30 AM - 11 AM High tea  
11 AM - 12 PM Industry talk  
12 PM - 1 PM Panel discussion 3  
1 PM - 2 PM Networking lunch  
2 PM - 4.30 PM Tour of IITM Research Park  
4.30 PM - 5 PM Tea and refreshments  
5 PM - 6.30 PM Valedictory function and Prize distribution

**\*\* SHOWS \*\***

**Tech Entertainment Night:**

Tech-Entertainment Night is a sonic kaleidoscope, blending techno's essence into a vibrant mix of beats, melodies, and boundless energy featuring EDM artist Karan Kanchan and International DJ Camilla. It wove together beams of vibrant hues, creating an extraordinary experience that captivated the audience.

Artists: Karan Kanchan, Camilla Lynx

Venue: OAT, IIT Madras

Date: 5th January 2025

Duration: 2hrs 30min

**Comedy Night:**

Shaastra Comedy Night features a diverse lineup of talent, each bringing their unique perspective and style to the mic. From relatable everyday experiences to absurd observations, our comedians will have you laughing out loud. Featuring Standup Comedian Gurleen Pannu

Artist: Gurleen Pannu

Venue: SAC, IIT Madras

Date: 6th January 2025

Duration: 40 to 55mins

## **\*\*Accommodation Rules\*\***

### Hospitality Policy Document

#### Registration and Accommodation Allocation

1. Registration for accommodation will be based on a first-come, first-serve basis via online registration.
2. Accommodation will only be given to teams/individuals whose accommodation has been confirmed via the online registration process.

NOTE: The accommodation is charged on basis of per person and not per room, so for one day's booking, one person's accommodation is booked. You can't share a room with your friend/team mate if they have registered for accommodation, you will be given accommodation only if booked for yourself

NOTE: The accommodation costs 850 for the first day you check in and costs 750 for every subsequent day you renew your stay. For example, staying for one day costs 850 Rs while staying for three days cost 850+750+750 Check-In and Stay Duration

3. Participants will not be allowed to occupy rooms beyond the dates for which they have registered. Irrespective of when the participant checks in, one day will be counted until the following day at 7:00 AM. Beyond this time, participants must vacate or pay for the next day.

NOTE: Even if you are checking in at 4 AM on one night, you will be paying the price of a full day till the same day's 7 AM even though it's only 3 hours and the next day's charges starts at 7 AM and are valid till the next day's 7 AM for the next 24 hours. Similarly, you cannot Check In the night / early morning before your booked slot starts unless you pay for the previous day ID Verification

4. Participants need to carry an Original or Xerox of their college ID card and Government ID proof (Aadhar, PAN). Legal Online ID like Digi Locker is also accepted. Failure to do so may result in denial of accommodation.

#### Accommodation Details

5. Participants would necessarily need to share accommodation if asked to. Single rooms will not be guaranteed. Large teams or teams from the same college may or may not be put up in the same rooms.

6. Lodging facilities are provided for all Shastra 2025 participants who have confirmed their registration with Hospitality only through the website.  
Hospitality Token and Food Facilities

7. A Hospitality Token will be issued to all the outstation participants who have availed of accommodation at the Hospitality Control room which can be traded in for room keys in the allocated Hostels.

8. In case of loss of the Hospitality Token, a new one will be issued against the total payment required for the same.

9. We will be providing complimentary breakfast everyday opted in for rooms, but Lunch and Dinner have to be purchased at the Shaastra's Food Stalls.

#### Refund and Cancellation Policy

10. No refund is possible for the accommodation under general circumstances and is not encouraged. General Guidelines

11. Participants are responsible for any damage/theft found in their allocated room. Anything found against the rules inside the room will be considered as the possession of the participants.

12. Possession and consumption of alcohol, tobacco-based products and narcotics in any form is strictly prohibited. If reported, the participant status of the person will be ipso facto null and void, and the case will be severely dealt with.

13. Valuable items should not be kept along with the luggage in the room. Shaastra 2025 will not be responsible for any loss or damage of property. Please secure your belongings and put your details on the same.

14. Accommodation for Shaastra 2025 will be provided from 3rd January - 8th January. No requests for accommodation earlier or later than the above-mentioned dates will be entertained. Check-in will be allowed only until 7th January 2025, and participants must check out by 8th January 2025.

#### Legal and Security

15. In the event of a lost key or lock, the individual will be responsible for covering the associated replacement costs.

16. It's the same case for any items provided by Shaastra including mattress and pillows, loss of item is supposed to be repaid by the individual

#### Important Details

17. Boys (irrespective of age, including babies) are strictly not allowed in the girl's hostel in any case, even to stay with their parent/guardian. It's the same case for girls not being allowed into the boy's hostel.

18. Accommodation fees are to be paid irrespective of age of the occupant, including babies and toddlers as it is considered as a registration



**\*\*Locations\*\***

Campus Cafe (CC): <https://maps.app.goo.gl/CET9PNfJtNrKjTwG8>

Central Electronics Centre (CEC): <https://maps.app.goo.gl/tPfmnYcZV5b4V8yZA>

Class Room Complex (CRC): <https://maps.app.goo.gl/uTs6FanKCp2qHQQP9>

Himalaya Food Court (HFC): <https://maps.app.goo.gl/aQGoXp9os79oasx77>

Open Air Theatre (OAT): <https://maps.app.goo.gl/MWWfZjNYYQNLKoJGA>

Central Lecture Theatre (CLT): <https://maps.app.goo.gl/gesC3WEokDWxMbUM8>

Gajendra Circle (GC): <https://maps.app.goo.gl/bgzUnnARY7i6vzZt8>

Ramanujan Block (RJN) : <https://maps.app.goo.gl/G8pjMXtCnEpGLKsF9>

Student Activity Centre (SAC): <https://maps.app.goo.gl/3sUJeNWgqMGf1SS49>

Centre for Industrial Consultancy and Sponsored Research (ICSR):  
<https://maps.app.goo.gl/C9BnM8Gws5Enhe4v8>

New Academic Complex 1 (KCB):  
<https://maps.app.goo.gl/PqEHNkXomTfizyeR7>

New Academic Complex 2: <https://maps.app.goo.gl/KyvQHGUUr5Hg8dLEA>

Raman Block (RMN): <https://maps.app.goo.gl/5P5mXTf4Nt88yXNG9>

Kendra Vidyalaya Grounds (KV): <https://maps.app.goo.gl/qveSLuJalmQ8vttXA>

Gymkhana : <https://maps.app.goo.gl/1htEyR4UPkMXnghv8>

DOST(UTIL) : <https://maps.app.goo.gl/AVj7Ef85a9LvHgmK9>

Room Number 3,4, Ground Floor, Port Centre, National Technology Centre for Ports, Waterways, and Coasts :  
<https://maps.app.goo.gl/xdwZqX7WBJ2wlgeb7>

**Departments:**

Humanities Sciences Block (HSB):  
<https://maps.app.goo.gl/FhcH1xPArEK91oZy8>

Mechanical Sciences Block (MSB):  
<https://maps.app.goo.gl/t8BQLkW6p3HdMt8r9>

Ocean engineering (OE):  
<https://maps.app.goo.gl/JR356SkQPUA4DUHi9>

Bio Technology (BT) :

<https://maps.app.goo.gl/eeJUCuvym6m3udWW9>

Engineering Design (ED) :

<https://maps.app.goo.gl/7WgvfLQN6gWDECoSA>

Aerospace (AE) :

<https://maps.app.goo.gl/tdjND22TmiGArAn1A>

Building Sciences Block (BSB) : <https://maps.app.goo.gl/sw6F9Wtvs2iHGtLi9>

Structural Engineering Block:

<https://maps.app.goo.gl/7WgvfLQN6gWDECoSA>

Subramaniam Shankar Block (SSB) :

<https://maps.app.goo.gl/VJjkrVknRGpYEsDU6>

Materials Processing Section, MME:

<https://maps.app.goo.gl/uy7Xyfm7JosZBHn66>

IE lab: <https://maps.app.goo.gl/J8R4RdUQcNVqz9J19>

Hockey Ground: <https://maps.app.goo.gl/N2sug5MuHDB4Z9ne8>

TTJ Auditorium: <https://maps.app.goo.gl/bw5REWkftNQpUs69>

## Monetary Slab Deals

Company Header to appear with company name 50-word description to appear in the passport

National Institute of Ocean Technology (NIOT) Title Sponsor National Institute of Ocean Technology (NIOT) is an autonomous institute under the Ministry of Earth Sciences (MoES), Government of India, Chennai. NIOT develops and promotes indigenous technologies to explore living and non-living marine resources through sustainable efforts. Currently, NIOT is developing technologies for marine renewable energy, deep sea mining & explorations, manned submersible and ocean observations.

Caterpillar Diamond Sponsor

IDFC FIRST Bank Ltd Platinum Sponsor IDFC FIRST Bank is on the mission to build a world-class bank right here in India that is guided by ethics, powered by technology, and a force for social good. Join us and embark on a transformative journey filled with dynamic opportunities to learn, grow and contribute to the evolving world of banking.

Bajaj Auto Gold Sponsor

"FedEx SMART Supply Chain Modelling, Algorithms, Research and Technology Centre IIT Madras" Silver Sponsor the Indian Institute of Technology Madras, (IITM) has teamed up with FedEx, a global leader in express transportation, to drive logistics sustainability through digital intelligence and technological advancements. With a mission to reshape Global Logistics and Supply Chain Management, the newly established FedEx SMART Centre of Excellence will drive innovation and deliver substantial benefits that extend beyond consumers, touching the lives of communities worldwide. This initiative promises to set new standards in logistics, fostering a future where sustainability and technological advancement go hand in hand for the greater good.

Appian Co-Sponsor Appian is a software company that automates business processes. The Appian AI Process Platform includes everything you need to design, automate and optimize even the most complex processes from start to finish. The world's most innovative organizations trust Appian to improve their workflows, unify data and optimize operations, resulting in better growth and superior customer experiences.

Temenos RC Title Temenos is to power a world of banking that creates opportunities for everyone, serving 3000 customers worldwide. Our open platform enables over 1.2 billion people to carry out their daily banking needs. The passion for making banking better drives us to be the banking platform for all kinds of players in the industry - for large and small banks, for non-banks, and fintech's, for partners and developers, for everyone.

KLA Co-Sponsor KLA Corporation develops industry-leading equipment and services that enable innovation throughout the electronics industry. We provide advanced process control and process-enabling solutions for manufacturing wafers and reticles, integrated circuits, packaging, printed circuit boards and flat panel displays. In close collaboration with leading customers across the globe, our expert teams of physicists, engineers, data scientists and problem-solvers design solutions that move the world forward.

Avanse Financial Services Limited Co-Sponsor Avanse Financial Services was established in 2013 with the sole purpose of enabling students to achieve their academic aspirations. We're an education-focused NBFC that provides customised education financing solutions to every deserving Indian student. Our range of

solutions covers the holistic requirements of an education aspirant. We have a vast network of students enrolled in 1,550+ educational institutions spanning across 49 countries.

Atomberg Event Sponsor Atomberg is the fastest-growing tech-driven Indian company, known for revolutionizing homes with smart, energy-efficient solutions. From pioneering BLDC motor fans that cut electricity use by 65% to innovating everyday tech, it embraces a "Why Not?" spirit. With cutting-edge R&D and a pan-India reach, Atomberg transforms lifestyles with passion and purpose.

L&T Summit Associate Title Sponsor L&T EduTech is an initiative under Larsen & Toubro to bridge the gap between industry and academia. The core objective is to enhance the employability of students and career progression for professionals across Engineering, Technology & other various sectors. It enables globally employable, industry-ready talent through state-of-the-art, application-oriented learning, skilling, assessment, and certification programs, powered by L&T's decades-long expertise in Engineering, Technology, Manufacturing, Finance, Management & IT sectors.

Arcesium Technology Sponsor

Flipkart Event Sponsor Flipkart is committed to the cause of transforming commerce in India through our investments in made-in-India technology innovations, customer-centric features and constructs, a diverse category landscape and a world-class supply chain. With a customer base of over 350 million, product coverage of over 150 million across 80+ categories, focus on generating direct and indirect employment and a commitment to empowering generations of entrepreneurs and MSMEs and a sustainable growth strategy - Flipkart is maximizing for our customers, stakeholders, and the planet at large! Flipkart is a part of the Walmart-owned Flipkart Group, which also includes group companies Flipkart Health+, Myntra, and Cleartrip.

Macmillan Budding Scientist Sponsor Macmillan Education is a global publisher with a local presence, where we connect with students, teachers, educational institutes and authorities. Since inception, we have advanced the learning curve for millions of students and educators with curated and innovative educational content and resources. Our solutions cater to everyone from children learning their first words to teachers looking to advance their knowledge and skills.

DigiKey Event Sponsor DigiKey, headquartered in Thief River Falls, Minn., USA, is recognized as the global leader and continuous innovator in the cutting-edge commerce distribution of electronic components and automation products worldwide. We get technical by providing more than 15.9 million components from over 3,000 quality name-brand manufacturers with an industry-leading breadth and depth of product in stock and available for immediate shipment. DigiKey also supports engineers, designers, builders, and procurement professionals with a wealth of digital solutions, frictionless interactions, and tools to make their jobs more efficient.

Surana Surana Presenting Sponsor (Event) Surana & Surana International Attorneys is a Top ranked "go-to" law firm in South India (headquartered in Chennai), known for its competence, quick response & commercial soundness. It assists MNCs, Corporates, Foreign Governments, Central & State Government organizations, individuals & social institutions. The firm's Academic Initiatives programmes over 37 years partnered with legal institutions sponsoring, administering & co-hosting what is the world's largest Moot Court project besides Law & Policy Track, Public Policy, Arbitral Award writing, Judgement writing & Essay competitions.

Autodesk Event Sponsor Autodesk is a global leader in software solutions for

architecture, design, manufacturing, media and entertainment. It empowers professionals to design, simulate, and produce with precision and innovation, offering tools for every stage of creation, from ideation to execution. Committed to sustainability, efficiency, and collaboration, Autodesk drives creativity and technical excellence, enabling industries to innovate and shape a more resilient, forward-thinking future for a better world.

CoE IITM Summit Event Sponsor Centre of Excellence for Road Safety (CoERS) at IIT Madras is dedicated to transforming road safety in India by integrating academia, industry and government efforts with the collective objective of saving lives. It serves as a think tank for the Ministry of Road Transport and Highways, Government of India focusing on data-driven research, innovation, policy advisory and stakeholder collaboration with government institutions. CoERS works on a 5 E Model - Engineering, Education, Emergency Care and Enforcement with strong focus on Empathy (Human Factors) which emphasizes innovation, mindset change and capacity-building to create a safer transportation ecosystem.

Help Them Shine Rewire Sponsor HelpThemShine was inspired by our journey raising a son with Autism. We provide globally recognized products, assist in building sensory rooms and parks to empower individuals with special needs. Our mission is to bridge accessibility gaps across the country, fostering independence and enabling everyone to reach their full potential.

R2D2 Event Sponsor

Vskills CA Sponsor

EaseMyTrip CA Sponsor EaseMyTrip, a publicly listed company on NSE and BSE, is India's largest online travel platform. Bootstrapped and profitable since 2008, it offers end-to-end travel solutions, including air tickets, hotels, holiday packages, rail, bus, and taxi services, with access to 400+ airlines and 2+ million hotels globally.

Key Highlights:

- Zero-convenience fee option
- Offices across India and globally (UK, USA, UAE, etc.)
- Fastest-growing OTA with 47% CAGR (FY20-24)
- Profitable since inception

Cubelelo Event Sponsor Cubelelo is the go-to destination for India's cubing enthusiasts, dedicated to providing premium puzzles, courses, and accessories with innovation at the heart of everything we do. From beginner solvers to national champions, we empower cubers with cutting-edge products, expert

knowledge, and unmatched support. Join us as we continue to revolutionize India's cubing experience!

The Hindu Media Partner the Hindu, India's most trusted newspaper for 146 years, champions credible journalism and innovation. Headquartered in Chennai, the publication informs and reflects public opinion, catering to diverse reader segments and fostering enduring trust and loyalty among its audience.

Shaastra Magazine Magazine Partner Shaastra, a Science Magazine by IIT Madras, delivers in-depth, India-centric coverage of global science and technology trends. With expertly researched articles, interviews, and guest columns by leading professionals, it offers valuable insights into R&D and innovation, making it an essential resource for science enthusiasts and students.

CODE Learning Partner

Jarvislabs Computational Partner At JarvisLabs.ai, you can rent GPU instances—including A100, H100, and RTX Variants—within seconds. Experience unbeatable performance

## **Passports and Pricing**

Shaastra 2025 offers four passport types: Standard, Silver, Gold, and Platinum. Each passport provides unique levels of access to Shaastra events, detailed as follows:

The **Standard passport**, priced at ₹449, provides access to the Event Finale, Workshops, Streets, and Industry Insight sessions. However, it does not include access to premium events like the Envisage Show, Robowars, EDM, TEN, Comedy, Spotlight Reserve, or Polo events.

The **Silver passport**, priced at ₹499, includes all benefits of the Standard passport. Additionally, it grants access to the Envisage Show, Robowars, and gallery seating for EDM. However, it does not include TEN or Comedy events. Spotlight Reserve seating and Polo event access are also not fully available at this tier.

The **Gold passport**, priced at ₹799, offers an enhanced experience with access to the Event Finale, Workshops, Streets, Industry Insight sessions, Envisage Show, Robowars, bowl seating for EDM, and reserved seating for Spotlight events. It also includes access to TEN events. However, Comedy and Polo events remain excluded at this level.

The **Platinum passport**, priced at ₹899, provides the most comprehensive access, covering all benefits of the Gold passport. Additionally, it includes access to Comedy shows and Polo events, ensuring an all-encompassing Shaastra experience for attendees.

Please note that while Workshops are included in the passport access, separate registrations are required for all workshops.

**\*\*Evolve\*\***

## Future Cities Summit

The Summit is the cornerstone of Shaastra a premier, invite-only, three-day 24/7 conference designed to bridge the gap between young enterprising crowds looking to network and industry veterans seeking a fresh perspective. The Summit boasts a diverse delegate pool, including college students, industry professionals, renowned academics, and leading innovators

This year, the Summit embraces the theme Future Cities, delving into transformative topics such as sustainable energy, futuristic transportation, AI driven urban planning, and more. Over three days, attendees can engage in immersive hackathons, earn certifications through two expert-led workshops, participate in thought-provoking panel discussions with India's leading researchers, and gain insights from inspiring lectures delivered by international companies and renowned speakers.

This year we are also hosting a Future Cities Expo with companies from around India, including some of the cutting-edge work at the IIT Madras housed Research Park, being put on display at interactive stalls.

## Workshops

Certifiable workshops led by industry leaders such as Gensler and Astrikos AI offer 2 unique perspectives on city building: exploring the transformative potential of architecture and urban design with Gensler, and the cutting-edge applications of AI with Astrikos AI.

### Lectures and Panel Discussions

Our speaker lineup features a diverse array of experts and thought leaders, including Mr. Kok Chin Tay, Chairman of the Smart Cities Council. Together, they will explore a range of compelling topics such as futuristic transportation, sustainable energy, and innovative approaches to city building.

### Cognify Grand Finale: Revolutionizing Toy-Based Learning for Neurodivergent Children

Interested in design? In special education? Or do you want to re-live your childhood through the world of toys? Cognify, the pan-India toy designing contest culminates in this inspiring finale, where the brightest minds converge to share their groundbreaking ideas. In association with Help Them Shine, this competition spans over 6 months and includes 3 rounds. This competition provides designers and special needs experts a platform to create toys that promote multisensory and inclusive learning.

Participants received mentorship from 25 expert toy designers and neuroscientists, ensuring their designs were scientifically grounded. Join the finalists, selected from over 1200 registrations, as they display their prototypes, showcasing the research and scientific principles behind their creations, all aimed at enhancing learning for autistic, dyslexic, and children with developmental disorders.

## The Teacher Conference

Join a transformative conference and upskilling workshop designed to empower pre-primary and primary educators with inclusive teaching methods and innovative strategies to improve cognition in diverse learners. This unique event offers the opportunity to participate in two engaging panels with speakers from diverse backgrounds with unique perspectives and two hands-on workshops, all led by experts in the field. Attendees will earn certifications from the Indian Autism Center, V-Excel, and Shaastra, IIT Madras, adding valuable credentials to their professional profiles. Beyond the sessions, the event provides a platform to network with like-minded professionals, share experiences, and collaborate on

advancing inclusive education practices. Don't miss this opportunity to elevate your teaching approach and make a meaningful impact in your classroom.

#### Brain Maze and World Record Attempt

Ever wondered how the most fascinating organ in our body functions? Step into the Brain Maze, an interactive adventure shaped like the human brain. Solve fun challenges that light up different brain regions, showing how they work in real time. This first-of-its-kind event at Shaastra blends creativity, science, and fun for an unforgettable experience. Be part of history by joining us to break the world record for the largest word search focused on cognition. Dive into the wonders of your mind don't miss it!



## **Spotlight Lecture Series**

### **Day 1**

#### **Dr. Sanjiv Das**

- **Date & Time:** 3rd January, 11 AM
- **Venue:** CLT
- **Designation:** Cancer Biologist, Shanti Swarup Bhatnagar Awardee
- **Format:** Lecture

#### **Dr. Sujatha Ramadorai**

- **Date & Time:** 3rd January, 3 PM
- **Venue:** CLT
- **Designation:** Mathematician, Shanti Swarup Bhatnagar Awardee
- **Format:** Fireside Chat

### **Day 2**

#### **Dr. Harsh Gupta**

- **Date & Time:** 4th January, 2 PM
- **Venue:** CLT
- **Designation:** Geophysicist, Padma Shri Awardee
- **Format:** Lecture cum Fireside Chat

#### **Ruchira Kamboj**

- **Date & Time:** 4th January, 11 AM
- **Venue:** CLT
- **Designation:** Retired IFS Officer, Ambassador-designate of India to the United Nations
- **Format:** Fireside Chat

### **Day 3**

#### **Dr. Velumani**

- **Date & Time:** 5th January, 2 PM
- **Venue:** CLT
- **Designation:** Founder of Thyrocare Technologies Ltd
- **Format:** Fireside Chat

## **Day 4**

### **Dr. Modadugu Vijay Gupta**

- **Date & Time:** 6th January, 11 AM
- **Venue:** CLT
- **Designation:** Biologist and Fisheries Scientist, World Food Prize awardee
- **Format:** Lecture

### **Dr. Subir Sachdev**

- **Date & Time:** 6th January, 3 PM
- **Venue:** TTJ Auditorium
- **Designation:** Professor of Physics at Harvard University, Dirac Medal Awardee
- **Format:** Lecture cum Fireside Chat

**\*\* How to register to an event or workshop \*\***

You can register for events and workshops through the official Shaastra website or mobile application. On-spot registrations are also available for select events and workshops. Verify which ones have on spot registrations before answering.

**\*\* Envisage \*\***

Envisage presents an unforgettable experience with three dynamic showcases that blend innovation, entertainment, and creativity at Shaastra 2025.

SHOW : Experience "The Reality Escape" a fully student-run techno-entertainment Show following Myra's extraordinary journey. Stunning visuals and effects bring this captivating story to life.

TECH ZONE : Discover groundbreaking hardware projects designed to entertain and inspire. From interactive gadgets to innovative inventions, the Tech Zone blends technology and fun like never before.

GAME ZONE : A collection of unique and exciting games, crafted by the team, offering immersive experiences and innovative gameplay. From VR adventures to creative challenges, there is something interesting for every player. \*\*  
Institute Open House \*\*

Where can I buy merch?

Shaastra official Merch can be purchased from stalls located at KV ground and CLT

Merch can also be purchased online through the website link:  
<https://www.shaastra.org/sales>

What is IOH?

IOH stands for Institute Open House. It is a part of Shaastra. This is an initiative by IIT Madras to cultivate interest in technology and research. As a participant in IOH 2025, you can visit labs and stalls that are open by various Departments.

What Shaastra is and how they can get access to the events in Shaastra?

Shaastra is the annual technical festival of the Indian Institute of Technology Madras (IITM), Chennai, India. It consists of various engineering, science, and technology competitions, summits, lectures, video conferences, exhibitions, demonstrations, and workshops from 3rd to 7th January. You can attend all events in Shaastra with a Shaastra passport which can be purchased here.

Are buses allowed inside campus? Will there be any guidance?

Yes, the bus can drop students at Gajendra circle and then there is no parking inside the campus. Yes, volunteers will be there to guide you.

Is there a place to freshen up for students visiting from outside Chennai? Yes, you can use the public restrooms available in IITM. Please find the nearest restroom on the maps/ helpdesk. There are relaxation rooms provided inside departments for participants to rest.

Can I change the time slot later?

No

Is it possible to visit the labs on some other day?

No, please plan accordingly and plan ahead to visit during the time slot chosen while registering.

Do I need a Shaastra Passport for this?

You need to have a confirmation email from the team regarding the registration.

Is there any specific time slot when we are allowed in the institute?

You will be permitted inside campus only during the time slot you have chosen during registration.

Where should I park my vehicle?

Vehicles cannot be parked in the IIT Madras campus. Private vehicles will be stopped at the gate. Buses can enter to drop-off at Gajendra circle and leave IITM campus, buses are not allowed to park in the institute.

How to reach the Institute?

Please refer this map for direction: <https://maps.app.goo.gl/zCvHXoheX5ozhPEWA>

How to reach the IOH stalls?

Institute Bus at the main gate bus stop, will drop the visitor/ students at Gajendra circle. School buses can drop off students at Gajendra circle and leave.

Are there facilities available for people with disabilities?

IIT Madras campus is fully accessible to everyone. People with disabilities can be allowed inside the campus on private vehicles till Gajendra Circle given they show a valid pass approved by the team. Please write an email to outreach@shaastra.org to get a vehicle pass for vehicles carrying persons with disabilities.

How will the verification of registration happen?

The person who registered has to bring a physical ID card whose soft copy was submitted during registration. This ID will be verified against the soft copy.

We have registered as a group. The person who registered is not with us. Is it mandatory for the registrant to attend in the group?

We will be verifying the registrant's ID card against the one submitted during registration. So, it is mandatory for the registrant to accompany the group.

How many labs can I visit?

You can visit as many as possible in your registered time slot.

Are there any emergency services or nearby hospitals available for people in case of medical emergencies?

Yes, medical professionals are available at all times during IOH. Please contact the volunteers for assistance during emergencies.

Is there a cafeteria or food court? What are the timings

Yes, we have set up catering stalls. You can find a food court on the map and enjoy the food. They are open during all times.

Are there any prohibited items or activities on campus?

Please refer to Do's and Don'ts sent through mail.

Where can I find transportation options around the campus?

Buses will be active on the functional roads. You can wait for them at the bus stops.

How can I navigate IIT Madras campus?

You can board a bus from Main Gate to Gajendra Circle. After that, you can walk on foot.

How do I know what labs are open for IOH?  
Available labs can be seen on the IOH website.

Will there be any guide to show us around the campus?  
If you have registered as a school, then you will be accompanied by a volunteer (based on availability) from the Shaastra team to guide school students.

Will IITM professors also be available during IOH?  
Yes, you can find some IITM professors at labs and stalls

Will there be any map provided or displayed to navigate to particular locations inside campus?  
Map banners can be seen around the campus. The map is also available on the IOH website.

What should we do in case we lose an item during the event? Is there a lost-and-found section?  
Please report it to security or the nearest help desk.

Is there a contact point or help desk for visitor inquiries?  
Yes, there are volunteers in the help desk to guide you.

What safety measures are in place in case of emergencies?  
Medical professionals and fire brigadiers are available at all times during IOH. Please contact the volunteers for assistance during emergencies.  
How can attendees stay updated about future events like this? Follow IIT Madras and Shaastra on our official social media handles.

This Chatbot was made with love by the Shaastra MLOps team