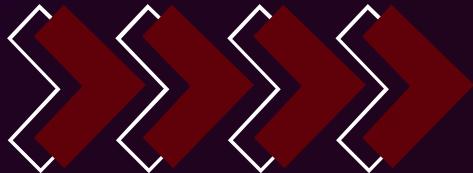




IEEE RAS Kerala Chapter



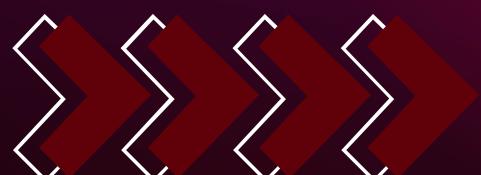
IEEE RAS SBC GECT  
GOVERNMENT ENGINEERING COLLEGE THRISSUR



# PRIME

ROBOTICS AND INNOVATION CONCLAVE

EVENT DETAILS BROCHURE



# ABOUT



Established in 1957, Government Engineering College Thrissur is a top-ranked institution with a legacy of academic excellence. Spread across a 75-acre campus, it offers cutting-edge infrastructure, industry-driven programs, and near-100% placements. With a vibrant network of student clubs and technical societies, GEC Thrissur fosters innovation, leadership, and continuous learning beyond the classroom.



IEEE founded in 1963, is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. With over 460,000 members across more than 190 countries, IEEE serves as a global platform for engineers, scientists, and technology professionals to collaborate, innovate, and lead in their respective fields. Through its extensive range of publications, conferences, and standards development, IEEE fosters a community committed to technological excellence and ethical practices, impacting various sectors including electrical engineering, computer science, biomedical engineering, and more.



Being the very first technical society student branch of the institution, the SB has played a very vital and crucial role in the development of research and technology in the institution. The SB has evolved into being accommodative of all fields of interests apart from science and technology. As amazing as it's past, with 9 societies, 35 awards and 200+ events conducted, the SB continues to be one of the top tier SBs of the IEEE Kerala Section, courtesy to its consistently top-notch activities.



IEEE Robotics and Automation society aims at promoting innovation and development of the robotics sector. Additionally, it aims at bringing more of the budding engineers into robotics and other allied areas of research. RAS has been an integral part of IEEE SB GECT since its birth.



PRIM.E is an event organized by IEEE RAS SBC GECT as part of receiving the Chapter Initiative Grant by IEEE RAS. It is an all-Kerala robotics and automation conclave that brings together students, professionals, and enthusiasts to explore the latest in technology and innovation. The event features a wide range of workshops on topics such as autonomous vehicles, embedded systems using microcontrollers, cybersecurity, and a hands-on session on building obstacle-avoiding robots. In addition to multiple expert talk sessions, PRIM.E also hosts a vibrant robotics expo, a laser maze, an ideathon, and various fun and interactive events, making it a dynamic platform for learning, networking, and showcasing talent.

# GATEWAY TO PRIM.E



**IEEE RAS Members**

**₹699**



**IEEE Members**

**₹899**



**Non-IEEE Members**

**₹1099**

# INSIDE PRIM.E

DAY 1 - 19/07/2025 SATURDAY



## Autonomous BAJA Workshop

Session Handled By



A practical workshop on autonomous vehicle systems and competitive racing vehicle design. Participants learn design principles and automation techniques from award-winning team expertise.



## Hands-On Workshop on Cyber Security and Ethical Hacking

In association with  IEEE COMPUTER SOCIETY

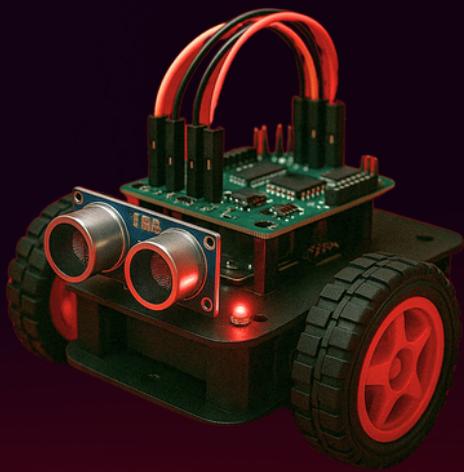
A practical workshop covering fundamental cybersecurity principles and ethical hacking techniques. Participants gain hands-on experience in digital security practices and protective measures for modern systems.



## TREASURE HUNT

A college-wide adventure where teams follow a series of clues and solve challenges across the campus. Participants navigate through different locations to ultimately discover the hidden treasure.

**DAY 2 - 20/07/2025 SUNDAY**



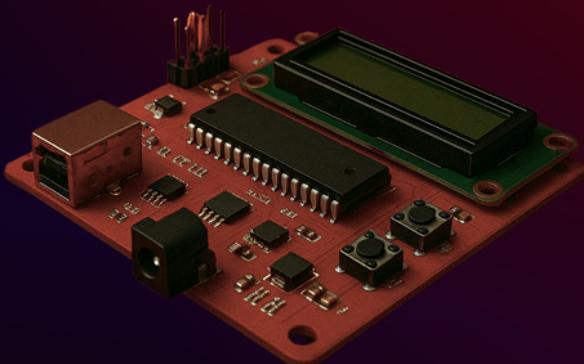
## **Hands-On Workshop on Obstacle Avoiding Robot**

Session Handled By



A technical workshop on building robots with autonomous navigation capabilities. The session covers sensor integration and programming for obstacle detection and avoidance.

## **Hands-On Workshop on Embedded Systems using Microcontroller**



Session Handled By



A technical workshop on microcontroller programming and embedded system development. Participants gain experience in hardware-software integration for robotics applications.



**ALOSH DENNY**  
Deep Learning and LLM  
Researcher

## Talk Session on Reinforcement Learning in Robotics: Becoming Human

A technical talk on machine learning algorithms that enable robotic learning and adaptation. The session explores how robots improve performance through experience-based learning.



## IDEATHON

A team-based innovation challenge where groups analyze given problem statements and develop creative solutions. Teams showcase their concepts through presentations, demonstrating their problem-solving approach and technical feasibility.

## Line Follower Robot Competition

**Prize Pool  
25K**

**Registration Fee 1K  
Maximum 5 Members in a Team**

REGISTER NOW



## **Robot Specifications**

- The robot must be autonomous and self-contained, i.e., it should not require external control during the line following process.
- The autonomous robot must fit within a cube of dimensions 25cm X 25cm X 25cm (l x b x h).
- The robot must not damage the Arena during the run.
- Any damage caused will be evaluated by the organizers and may lead to disqualification.
- All components of the robot must comply with safety regulations and should not pose any risk to participants or spectators.
- The robot must have an onboard power supply. The potential difference between any two points must not exceed 12V at any point during the game.
- Readily available bots are strictly prohibited.

## **Track and Competition Rules**

- Each participating team will have a designated start point within the path.
- The racing track is a continuous black line of width 25mm and Task consisting of acute angles, loops, T intersection, etc.
- The objective for each robot is to navigate from the start point to the designated end point of the path.
- Teams will be allowed 3 chances to program and calibrate their robots before the competition begins.
- Once the competition starts, robots must operate autonomously without any intervention from team members.
- The robot's performance will be evaluated based on criteria such as completion time, accuracy, and successful navigation through the track.
- Actual Run: There will be 3 chances and the best time will be counted.
- Each actual run should not take more than 5 minutes to complete the path.
- Track will be revealed at the date of the event.
- A bot can skip the Task only after 3 tries, and a penalty of \*20 sec each will be imposed.
- The bot can resume from where it went out of track with a hand touch penalty of \*5 secs each.

## ONLINE TALK SESSIONS (Free for All)



SHAZIN SHAHUL

Cyber Security Researcher and  
Faculty Head of Techbyheart

### Talk Session on Cybersecurity in IOT

Online 📅 July 17

A comprehensive overview of security challenges in IoT devices and networks. The session addresses current vulnerabilities and protection strategies for connected systems.



AMRITA JIJU

Regional Student Representative  
(RSR) Co-Chair (Asia) of IEEE  
Robotics and Automation Society

### Talk Session on Agentic AI and RAG

Online 📅 July 18

An informative session on autonomous AI systems and Retrieval-Augmented Generation technologies. The talk covers how AI agents utilize external knowledge sources for enhanced decision-making.

## EVENT SCHEDULE

### ONLINE TALK SESSIONS\*

DATE	TIME	TOPIC	SPEAKER
July 17	7:00 PM to 8:30PM	Cyber Security in IoT	Shazin Shahul
July 18		Agentic AI and RAG	Amrita Jiju

\*Free for all

### DAY 1 - 19/07/25 SATURDAY

Sl. No.	TIME*	EVENT
1	9:00 AM to 10:30 AM	Inauguration
Tea Break (15 mins)		
2	10:45 AM to 1:15 PM	Ice Breaking and Networking Session
Lunch Break - 1:15 PM to 2:00 PM		
3	2:00 PM to 4:00PM	SAE Autonomous BAJA Workshop
		Workshop on Cyber Security & Ethical Hacking
Break - 4:30 PM to 5:00 PM		

4	5:00 PM to 6:30 PM	Treasure Hunt
5		Cultural Night

## **DAY 2 - 20/07/25 SUNDAY**

<b>Sl. No.</b>	<b>TIME*</b>	<b>EVENT</b>
1	9:00 AM to 1:00 PM	Workshop on Obstacle Avoiding Robot
		Workshop on Embedded System using Microcontrollers
Lunch Break - 1:00 PM to 2:00 PM		
2	2:00 PM to 4:00 PM	Talk Session on Reinforcement Learning in Robotics by Alosh Denny
3	4:00 PM to 6:00PM	Ideathon
		Line Follower Robot Competition
4	6:00 PM	Closing Ceremony

\*Times are subjected to change

# OUR PUBLICITY PARTNERS

IEEE RAS Kerala Chapter



# OUR TICKET PARTNER

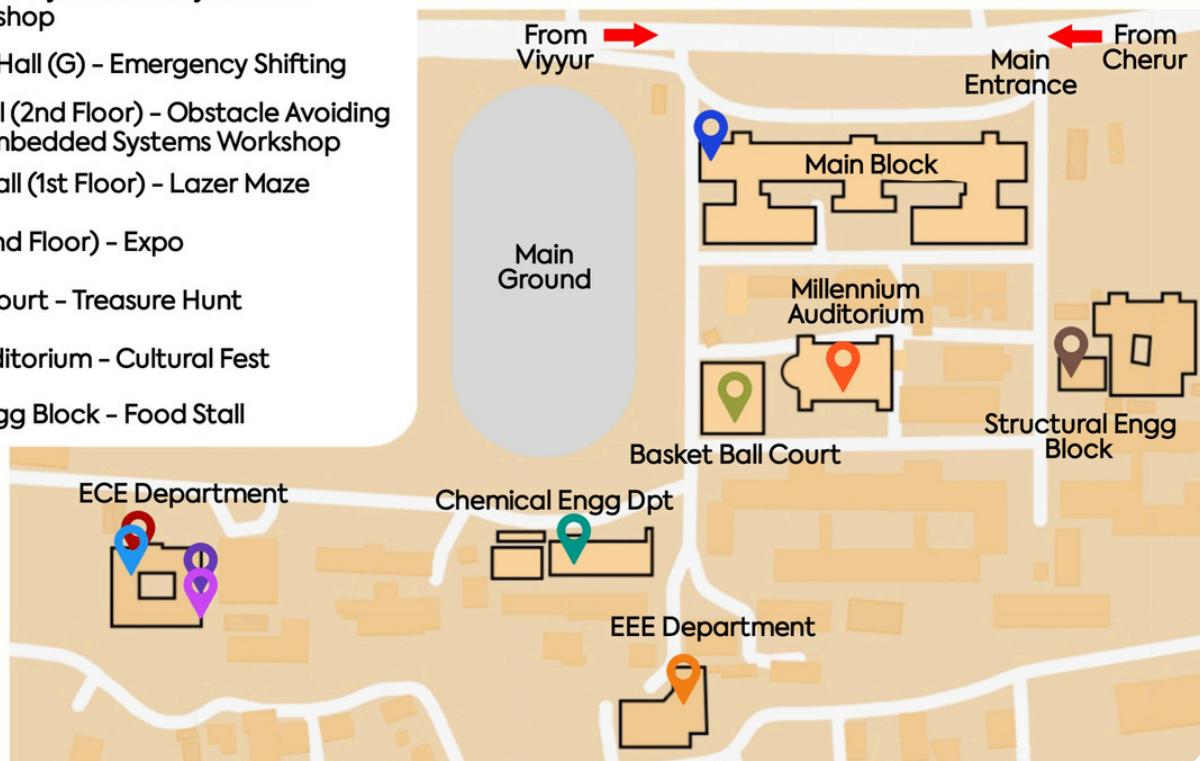
MakeMy Pass

- 📍 Western Amphi (G) - Inauguration, Talk Sessions and Closing Ceremony
- 📍 EEE Maxwell Hall (G) - Ideathon
- 📍 Chemical Dpt - Cyber Security and SAE A-BAJA Workshop
- 📍 ECE Seminar Hall (G) - Emergency Shifting
- 📍 ECE ASAP Hall (2nd Floor) - Obstacle Avoiding Robot and Embedded Systems Workshop
- 📍 ECE MTech Hall (1st Floor) - Lazer Maze
- 📍 CPS Room (2nd Floor) - Expo
- 📍 Basket Ball Court - Treasure Hunt
- 📍 Millenium Auditorium - Cultural Fest
- 📍 Structural Engg Block - Food Stall



SCAN

## GEC TIRISSUR



\*Event locations are subjected to change

# CONTACT

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OUR WHATSAPP



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