

#### SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY

An Autonomous Institution | Approved by AICTE | Affiliated to Anna University Kuniamuthur, Coimbatore - 641008

# DEPARTMENT OF MECHATRONICS ENGINEERING

# ROBOTICS CLUB



## **About the Club**

The Robotics Club is a vibrant community for students passionate about the field of robotics and unmanned systems. Our mission is to provide comprehensive training and hands-on experience in both hardware and software aspects of robotics and drone technology. We aim to inspire innovation and support our members from the initial idea stage through to the product development phase.

## **Mission**

#### **Our mission is to:**

- Foster a deep understanding of robotics and drone technology through hands-on training.
- Encourage innovative thinking and problem-solving skills.
- Support the transformation of ideas into tangible products.
- Connect members with industry professionals and provide career development opportunities.

# **Vision**

We envision a community where students are empowered to explore and innovate in the field of robotics and drone technology, contributing to advancements and applications that benefit society.

# **Activities**

#### **Training Programs:**

 Our training programs cover a broad range of topics, including circuit design, sensor integration, microcontroller programming, and robotics algorithms. We emphasize hands-on learning to ensure members gain practical experience.

#### **Drone Assembly and Flying:**

 Members learn to build drones from scratch, understanding each component's role. We provide comprehensive training on flying techniques, safety protocols, and navigation.

## **Activities**

#### **Hackathons and Projects:**

 Regular hackathons and projects offer members the chance to work in teams, tackle real-world challenges, and develop innovative solutions. These activities promote teamwork, creativity, and practical application of theoretical knowledge.

#### **Product Development:**

 We support entrepreneurial spirit by guiding members through the product development process. From refining concepts to constructing prototypes and conducting market analysis, we provide mentorship at every stage.

### **Benefits**

# Joining the Robotics Club offers numerous benefits:

- **Skill Enhancement**: Gain hands-on experience and deepen your knowledge in robotics and drone technology.
- Networking Opportunities: Connect with like
   -minded peers, industry professionals, and
   potential collaborators.
- Practical Application: Apply theoretical knowledge to real-world scenarios, boosting problem-solving skills and confidence.
- Career Development: Access guidance, resources, and opportunities for careers in the robotics and drone industry.

# **Rules and Regulations**

To ensure a safe, productive, and collaborative environment, the Robotics Club has established the following rules and regulations. All members are expected to adhere to these guidelines to maintain the integrity and success of the club

### Conduct

Respect: Members must treat each other with respect and courtesy at all times.

Safety: Safety protocols must be followed during all hands-on activities, including drone flying and hardware assembly. Members must wear appropriate safety gear and handle equipment responsibly.

**Collaboration:** Teamwork and cooperation are encouraged. Members should work collaboratively and support one another.

Academic Integrity: All work submitted for projects and competitions must be original and free from plagiarism.

# **Meetings and Events**

Attendance: Members are expected to attend regular meetings and events. If unable to attend, members should notify the club officers in advance.

Punctuality: Members should arrive on time for meetings and events.

Preparation: Members should come prepared for meetings and training sessions, having completed any assigned tasks or readings.

**Equipment and Resources** 

Usage: Club equipment and resources must be used responsibly and for club-related activities only.

Maintenance: Members are responsible for maintaining and properly storing equipment after use.

Reporting: Any damaged or malfunctioning equipment must be reported to a club officer immediately.

# **Projects and Competitions**

Participation: Members are encouraged to participate in club projects and competitions. Participation should be collaborative and contribute to the team's success.

Commitment: Members involved in projects or competitions must commit to the necessary time and effort to ensure completion and success.

**Ethics:** All projects and competition entries must adhere to ethical standards and competition rules.

# **Code of Conduct Violations**

Reporting: Any violations of the club's rules and regulations should be reported to a club officer.

Consequences: Violations of the code of conduct may result in disciplinary action, including suspension or termination of membership.

**Amendments** 

# **Code of Conduct Violations**

Review: These rules and regulations will be reviewed periodically by the club officers.

**Changes:** Any changes to the rules and regulations will be communicated to all members in a timely manner.

By joining the Robotics Club, members agree to abide by these rules and regulations. These guidelines are in place to ensure a positive and productive environment where all members can learn, innovate, and succeed

### CONTACT

### **FACULTY MENTOR**

Name: Vignesh T

**Phone Number: 8124811733** 

Email ID: vignesht@skcet.ac.in

### STUDENT COORDINATORS

Name: Abhinandhan G

**Phone Number: 8220623027** 

Email ID: 727721eumt003@skcet.ac.in

Name: Miruthula R

**Phone Number: 7604976607** 

Email ID: 727721eumt059@skcet.ac.in

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# Three days Summer Camp on 3D Printing and Robotics



22.5.2024 - 24.5.2024



**Advanced Automation Lab, MCT, SKCET** 



Mr S Paneerselvam, Assistant Professor/MCT Ms R Priyadharshini, Assistant Professor/MCT Dr G Veerapan, Associate Professor/MCT Mr T Vignesh, Assistant Professor/MCT



- Enhanced Understanding of Robotics.
- Introduction to Microcontrollers and Arduino.
- Practical Skills in Arduino and TinkerCAD.

# Three days Summer Camp on 3D Printing and Robotics



# Three days Summer Camp on 3D Printing and Robotics







# **Entrepreneurial Endeavors in Robotics and ROS**



16.05.2024 - 17.05.2024



**Advanced Automation Lab, MCT, SKCET** 



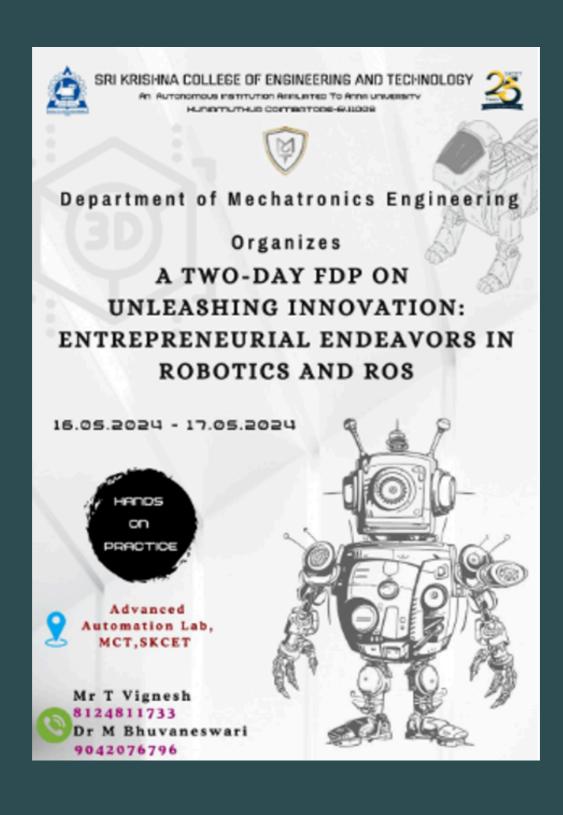
Mr. Yenikapati Tatwik Co-founder of Anya Robotics Mr. Manojkumar

**Co-founder of Anya Robotics** 



- Enhanced understanding of ROS and its applications.
- Practical experience using ROS tools for robot simulation.
- Inspiration to explore entrepreneurial endeavors in robotics technology.

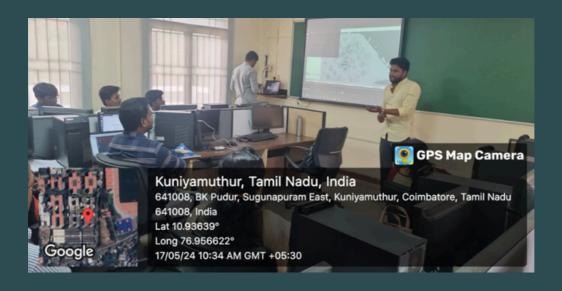
# **Entrepreneurial Endeavors in Robotics and ROS**



# **Entrepreneurial Endeavors in Robotics and ROS**







# Four days Hands-on Workshop on UAVs



11.3.2024 - 14.3.2024



SMI lab, MCT, SKCET



Mr. Yuvaraj
Aerospace Professional
Skyrider Aero Solution, Chennai
Mr. Sam
Expert in Aeronautical Solutions
Skyrider Aero Solution, Chennai



- The workshop significantly enhanced students technical skills in UAV assembly, programming, calibration, and flying.
- Theoretical and Practical Knowledge bridged the gap between theoretical knowledge and practical application, providing a robust foundation in UAV and RC plane technologies.

# Four days Hands-on Workshop on UAVs



# Four days Hands-on Workshop on UAVs









16.02.2024



**SMI lab, MCT, SKCET** 



Prof. Kavi Arya,
Professor, Principal Investigator, e - Yantra,
CSE Department, IIT Bombay
Dr. J. Janet,
Principal, SKCET



- e Yantra is a robotics outreach program funded by the Ministry of Education and hosted at IIT Bombay.
- e Yantra Lab establishment enable 10 students and 4 faculty members to get trained in the field of Robotics and embedded systems.





#### DEPARTMENT OF MECHATRONICS ENGINEERING

Cordially invite you for the Inaugural of

SKCET - IIT Bombay - Yantra Laboratory

**INAUGURATED BY** 



Dr.J.Janet

Principal



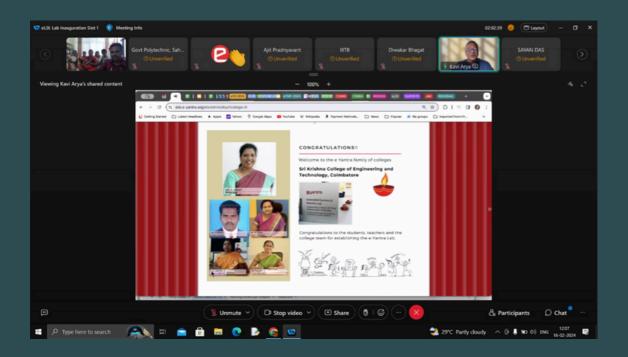
Prof.Kavi Arya

Professor, Principal Investigator, e - Yantra CSE Department, IIT Bombay

Friday, 16 February 2024, 11:00am, SMI Laboratory, SKCET









# Preparing the Next Generation of Innovators & Creators in Immersive Technologies (AR & VR)



07.02.2024



**MCT Conference Hall, SKCET** 

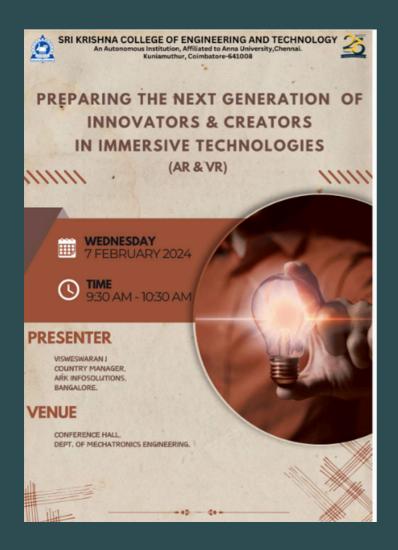


Visweswaran J,
Country Manager,
ARK Infosolutions Bangalore



- Introduction to Immersive technologies.
- Current and Future Needs of AR/VR.
- Industry Needs.
- Demo of VR

# Preparing the Next Generation of Innovators & Creators in Immersive Technologies (AR & VR)





# **EMPOWERING EDUCATORS: AI in Robotics and Automation**



4.12.2023 - 8.12.2023



LOCATION

**Google Meet (Online Mode)** 



**RESOURCE PERSONS** 



Department of Mechanical Engineering IIT Bhilai, Chattisgarh, India

#### **Dr. Ramya S Moorthy**

Department of Mechatronics, Manipal Institute of Technology,

Manipal

#### Dr. T Mohanraj

Department of Mechanical Engineering, Amrita School of Engineering,

Coimbatore

#### **Dr. Santhakumar Mohan**

Department of Mechanical Engineering, IIT Palakad. Kerala

#### Mr. Justus Zachariah

Director of We-serve Life in Coimbatore

#### **Ms. Shiby Justus**

Director of We-serve Life in Coimbatore

#### Mr. Sriram Nagarajan

Roboram's Founder and CEO

#### Dr. R. Ramakrishnan

VIT University, Vellore

#### Dr. G Raam Dheep

Department of Robotics and Artificial Intelligence

Lovely Professional University, Punjab

#### **Dr. Mangal Das**

School of Electronics Engineering at VIT, Chennai



- Educators will improve their knowledge and skills in AI basics, robotics, and automation technologies, as well as acquire practical experience with AIpowered products.
- Improved teaching methods by combining Al and automation with modern technology principles.

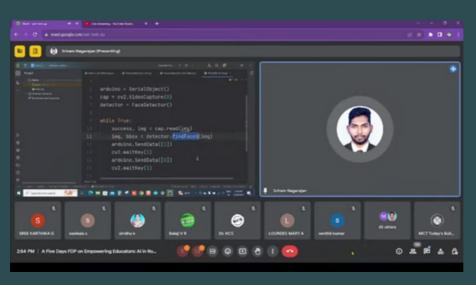
# EMPOWERING EDUCATORS: Al in Robotics and Automation



# EMPOWERING EDUCATORS: Al in Robotics and Automation







### **Outreach Activity for School Students**



17.08.2023



Government Girls Higher Secondary School, Thondamuthur, Coimbatore



Mr. T. Vignesh Assistant Professor/MCT Dr. N Mithran Associate Professor/MCT



- Around 200 school students actively participated in the event and our team was appreciated by the school head master and teachers for conducting such an eye opening session.
- Students enjoyed the hands on learning experience in Robotics,3D Printing, AR/VR

# **Outreach Activity for School Students**



# INSTITUTION OF ENGINEERING AND TECHNOLOGY (IET)



15.10.2022



The Feather hostel, Chennai



Mr. S. Madhankumar Assistant Professor/MCT

Mr. T. Vignesh Assistant Professir/MCT



Nithesh Anand MS, Cheran R and Cibidharan P - II Year



 The students team was honoured with a prize amount of Rs.15000 and offered three months internship by the Nokia the connecting people at their Chennai plant.

# INSTITUTION OF ENGINEERING AND TECHNOLOGY (IET)



### SMART INDIA HACKATHON - 22 (HARDWARE EDITION)



25.08.2022 - 29.08.2022



**Galgotias University, Noida** 



Dr M. Lydia Head Of The Department/MCT Mr T. Vignesh Assistant Professor/MCT



**Team Hephaestus** 

Udayasri S III MCT A
Arul Murugan S III MCT A
Nellaiappan B III MCT B
Shannon Abishek S III MCT B
Tharun Kumar C III MCT
Vijeth R III MCT B



First Prize: Rs. 100000

#### SMART INDIA HACKATHON - 22 (HARDWARE EDITION)







#### SMART INDIA HACKATHON - 22 (HARDWARE EDITION)



25.08.2022 - 29.08.2022



**Galgotias University, Noida** 



T. Vignesh, Vignesh Ramkumar



**Tech Mutants** 

Krishna Prasath III/MCT B Vishnu Prakash III/MCT B Neelash Kannan III/MCT B Vishal III/MCT B Haripriya III ECE A Dheeraj A II MCTA



**Special Category** 

# SMART INDIA HACKATHON - 22 (HARDWARE EDITION)



## **IDEATHON**



27.07.2022



Sri Krishna College of Engineering and Technology, Coimbatore



**Mr T. Vignesh Assistant Professor/MCT** 



Vishnu Prakash - IV MCT Vishal - IV MCT Neelash Kannan - IV MCT



Second Place

### **IDEATHON**



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#### CERTIFICATE OF ACHIEVEMENT

Scheme For Promoting Interests, Creativity and Ethics Among Students AICTE SPONSORED SPICES HACK CLUB



has awarded with I/II/III Prize for exemplary performance in **IDEATHON 2k22** 

conducted by the Department of M.Tech Computer Science and Engineering & Department of Artificial Intelligence and Data Science, Sri Krishna College of Engineering and Technology,

Coimbatore on 27th July 2022.

HoD/M.Tech CSE

HoD/AI & DS

HoD/M.Tech CSE

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According By Naac With 'A' Grade, MBA(CSE, ECE, IT, MECH &MCT) Affiliated To Anna University, Chernal Kuniamuthur, Coimbatore - 641993.

#### CERTIFICATE OF ACHIEVEMENT

Scheme For Promoting Interests, Creativity and Ethics Among Students AICTE SPONSORED SPICES HACK CLUB

VISHAL S IX MCT

has awarded with t/II/HI-Prize for exemplary performance in **IDEATHON 2k22** 

conducted by the Department of M.Tech Computer Science and Engineering & Department of Artificial Intelligence and Data Science, Sri Krishna College of Engineering and Technology,

Coimbatore on 27th July 2022.

HoD/AI & DS

PRINCIPAL

# IDEATHON



### PAPER PRESENTATION



15.04.2022



**Eswari Engineering College** 



**Mr T. Vignesh Assistant Professor/MCT** 



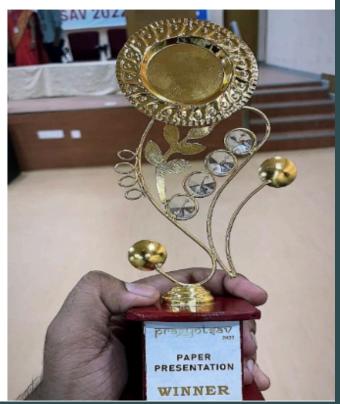
Nithis Anand and Hariharan - II MCT



- Paper topic: Digital twin to predict the machine failure.
- Got first prize in the paper presentation event at SRM University

# PAPER PRESENTATION





#### **Hackathon: Al For Social Good**



6.10.2021-13.10.2021



Sri Krishna College of Engineering and Technology, Coimbatore



Dr. M. Lydia Head of the Department/MCT Mr. T. Vignesh Assistant Professor/MCT



Achitha M Hemand Adish R Ashik Illahi M



First Prize: Xtremum From Mechatronics Engineering

#### **Hackathon: Al For Social Good**







# SMART INDIA HACKATHON 2020 (HARDWARE)



21.12.2020 - 23.12.2020



Shibin Thomas S - III Year Prawin Sankar - III Year



**First Prize** 



## SMART INDIA HACKATHON 2020 (HARDWARE)





## **DRONE CHALLENGE**



11.03.2020



Dept. of Aeronautical Engineering in Hindustan Institute of Technology, Coimbatore



Vibunesh N T



Third Prize
Prize Amount: Rs. 750



# **DRONE CHALLENGE**



27.02.2020



**Department of Mechanical Engineering in SKCT** 



Vibunesh N T - II MCT Jenil D J - II MCT A



First Prize
Prize Amount: Rs.1500



# **DRONE CHALLENGE**



#### **IFA HACKATHON - CHENNAI**



08.12.2019



IFA - Chennai



Mr T. Vignesh Assistant Professor/MCT
Mr N. Manikankadan Assistant Professor/MCT



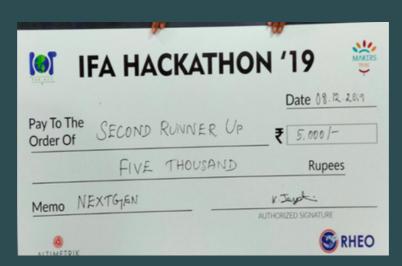
Shibin Thomas S - IIIYear Prawin Sankar - III Year Biruthavani - III Year



**Topic: Nextgen app** 

**Second Prize** 

**Prize Amount: Rs. 5000** 



# **IFA HACKATHON - CHENNAI**



# TCS XR HACKATHON - CHENNAI



17.10.2019



**TCS - Chennai** 



Mr T. Vignesh Assistant Professor/MCT Mr N Manikandan Assistant Professor/MCT



Shibin Thomas S Prawin Sankar



**Prize Amount:** Rs. 2,00,000



# TCS XR HACKATHON CHENNAI





# SMART INDIA HACKATHON - CHANDIGARH



24.09.2019



**Chandigarh Engineering College, Chandigarh** 



**Mr T. Vignesh Assistant Professor/MCT** 





# Project Expo - CODISSIA



10.9.2019 - 13.9.2019



Coimbatore



Mr T. Vignesh Assistant Professor/MCT
Mr N Manikandan Assistant Professor/MCT



No. of Projects: 9



# **Project Expo - CODISSIA**



# TAKE UP RACING (AERO MODELING)



04.02.2019



**Kumaraguru College of Technology** 



**Prize: Rs. 8000** 



# **AEROBATIC MANOEUVRES - Drone and Flight**



03.01.2019



**IIT Madras Shaastra Tech Fest** 



**Third Prize** 



# **TECH FEST**



14.12.2018 - 17.12.2018



**IIT Bombay** 



# **BOEING TEAM**



14.12.2018 - 17.12.2018



**IIT Bombay** 



Mr T. Vignesh Assistant Professor/MCT



# **BOEING TEAM**





### SMART INDIA HACKATHON 2018 - ASSAM



30.03.2018 - 31.03.2018



**Deloitte Innovation Award - 10K** 



Team Name: Educational Guider Preethi, Santhosh Kumar, Siva Sathish, Varun Vinayak, Rohith VL, Vasu Devan

