#### PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY

Kothandaraman Nagar, Dindigul – 624622





# CENTRE OF EXCELLENCE IN ROBOTICS AND AUTOMATION

ROBO CLUB
PROUDLY LAUNCHES
THE MAGAZINE

"GIZMO Edition- 2"

On 10-06-2022

#### ROBO CLUB FACULTY TEAM

- Dr. G. Athisha, HoD/ECE
- Dr. J. Booma, ASP/ECE
- Dr. M. Deivakani, ASP/ECE

#### ROBO CLUB TECHNICAL INSTRUCTOR

• Mohan kumar M

#### ROBO CLUB OFFICE BEARERS

#### **Robo Club President:**

- Manikandan G
- Gomathi Shruthy S

#### **Robo Club Vice-President:**

- Gajhana Selvi V
- Mohamed Sikkandar M
- Yaswanth M

# **Robo Club Secretary:**

- Velu Prabhakaran V
- Pragatheeshwari K

#### **RoboClub Coordinator:**

- Shridhar J
- Amrisha Vivinya P M

#### **Technical Heads:**

- Gowtham K
- Ariharan S
- Rishikeshvar Ram V
- Vignesh S

# **Magazine Incharges:**

- Santhosh Kumar P
- Rajkishore G

# **Social Media Incharge:**

- Sriharan S
- Supraja R
- Yazhini.B

# **Department Student Coordinators**

- M. Mohaned Sikkandar ECE
- M. Selvaganesh CSE
- A.K. Sanjeetha IT
- S. Logesh AI & DS
- M. Parthiban BME

# **Importance of Robotics and Automation Research Group**

- The expansion of the world of AI and ML has revolutionized the business arena.
- Acquiring adept knowledge about the field and its operational tools has gained pre-eminence.
- This Group fulfils one such crucial need of these changing times.
- It was ideated as an on campus, Centre of Excellence in Robotics, Internet of Things (IoT), Artificial Intelligence (AI), Rapid Prototyping (RP) and Industrial Automation, that delivers tailor- made solutions to their clients.

#### **Robotics and Automation Laboratory**

- Robotics and Automation Lab at PSNA makes the students industry ready by providing the much-required hands on experience.
- It is in alignment with the New Education Policy laid down by the All-India Council for Technical Education (AICTE).
- Robotics is also identified as one of the Emerging Technologies by the AICTE and this Lab established at PSNA is a step towards providing industry relevant curricula to PSNA CET students.

# Features of the Robotics & Automation Laboratory are:

- Advanced state of the art technical research facility within campus
- Hands on practical experience along with required theory
- Consolidation of concepts
- Industry- Institute Interaction
- Standard guidelines and essentials
- Superior quality and Advanced robot study platforms
- Training by Industry Experts

# **Industry-Institute Interaction:**





# Facilities in the Robotics & Automation Laboratory:

- The following Technology sections are available in the Robotics Lab:
- Students learn how to use the following:

#### **Section I : Electronics Technology Division**

- Sensors
- Microcontroller boards
- Power sources (batteries, power supply, etc.)
- Motor drivers
- Communication modules
- Consumables

## **Section II: Mechanical Technology Division**

- Actuators and different types of motors
- Tools & instruments
- Machines for manufacturing
- Fasteners, adhesives, etc.

#### **Section III: Pneumatics Technology Division**

- Pneumatics cylinders
- Flow Control Valves
- Different types of connectors
- Air supply units
- Pneumatics study table and nomenclature
- Pneumatics circuit designing

#### **Robot Study platforms:**

- OMIBO: Omni wheel-based robot
- MARSian: Mars Rover prototype
- FLEXO: Haptic Robotic Arm
- Hex Crawler robot
- ROBOMAN robot
- JCBian: Pneumatic Back-hoe Loader

#### **Software:**

- Open Source software for coding
- Software for simulation
- Software for designing

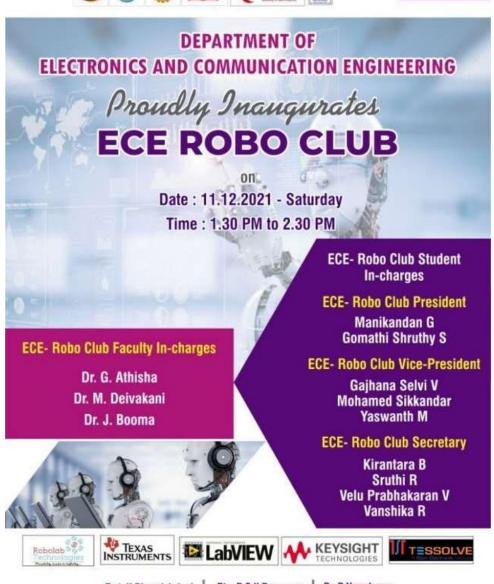
Department of Electronics and Communication and Engineering - PSNA College of Engineering and Technology organized inauguration ceremony of ECE ROBO CLUB on 11.12.2021.











Tmt. K.Dhanalakshmi Chairperson

Rtn. R.S.K.Raguraam Pro-Chairman

Dr. D.Vasudevan Principal















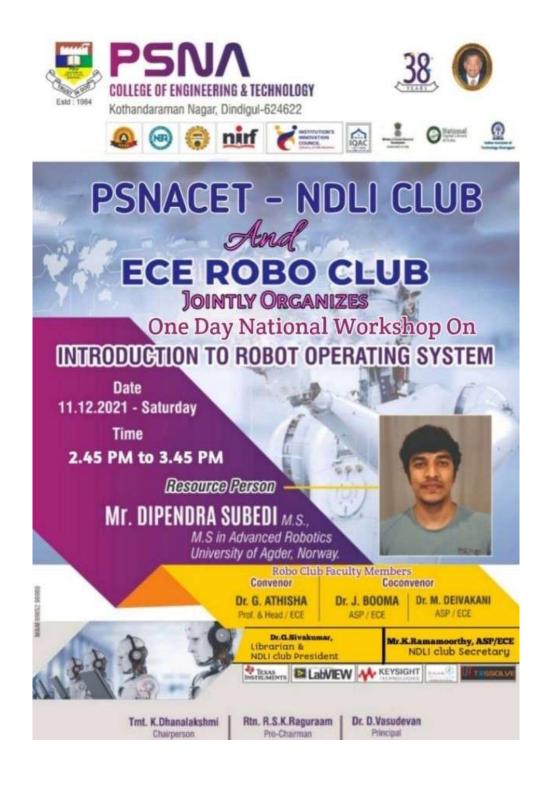








PSNACET – NDLI CLUB and ECE ROBO CLUB organized organized an one day National workshop on "**Introduction to Robot Operating System**" on 11.12.2021















**Title:** Training Programme on Robotics and Automation Phase – I

**Date(s)**: 31 - 03 - 2022

**Event Coordinators:** Dr.J.BOOMA and Mrs. P. G. Akila.

**Total Participants**: 52



# CENTRE OF EXCELLENCE IN ROBOTICS AND AUTOMATION

----AND -----

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING















**Title:** Training Programme on Robotics and Automation Phase – I

**Date(s)**: 06 - 05 - 2022

Event Coordinators: Dr.J.BOOMA and Mrs. P. G. Akila,

**Total Participants**: 52









