DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DATE: 18-10-23 TIME: 10.00AM to 5.00PM Venue: R404B

Name of the Faculty Coordinator: Dr. S. Rooban

Name of the Event: Roborace

Event Category (ESO/TEC/CLH,IIE,HWB): TEC

List of student event Organizers:

2200040173 P Manjunaath
2200040238 D Bhanu Prakash Reddy
2200031194 Sandeep
2200049143 K.Ranga Nitheesh
2200049154 T.Sashi Reddy

Event Report: Roborace

The workshop titled "Roborace" was organized with the primary objective of equipping students with the programming skills and competitive nature among the students.

Roborace is an autonomous car racing series, while "Arduino" is a popular open-source electronics platform based on easy-to-use hardware and software. The two don't directly relate to each other in their most popular applications, but we can explore the idea of a scaled-down Roborace-style competition using Arduino.

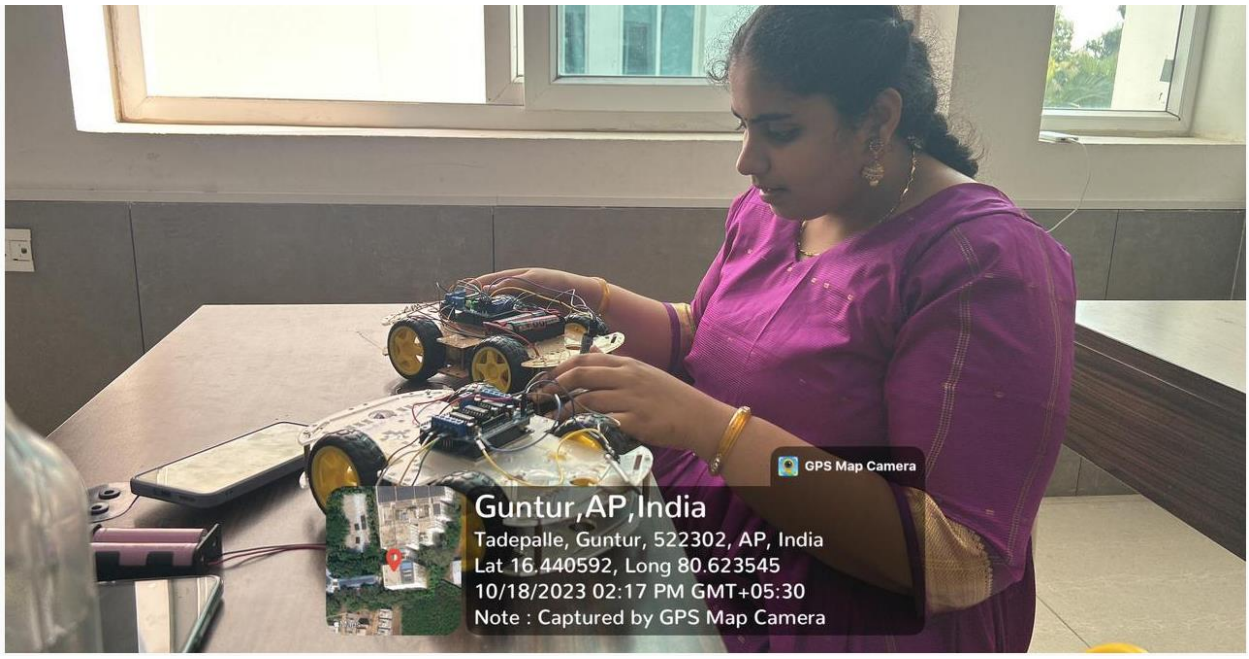
Key Highlights:

Vehicles: Use small RC cars or simple robots built with components like motors, wheels, and chassis. The control of these vehicles can be managed through an Arduino board. Sensors: To allow the vehicle to perceive its environment, add sensors like ultrasonic distance sensors for obstacle detection, infrared line followers for track detection, and possibly cameras (though processing camera feeds may require more advanced hardware than Arduino).

Programming: Write an Arduino code that processes the input from the sensors and makes decisions about speed, direction, and obstacle avoidance to navigate the track.Track: Design a scaled-down track. This can be a simple taped outline on the floor for the infrared line followers or a more complex environment with obstacles.

Race: Once all the teams have their robots ready, they can compete against each other. The goal would be to complete laps around the track in the shortest time without deviating or running into obstacles. Robots can be tested on their ability to avoid collisions, overtake other robots, and maintain the optimal line around the track.Challenges: As competitors become more proficient, introduce more advanced challenges. This might include dynamic obstacles that move, changing track configurations, or low-light conditions.Evaluation: Robots can be evaluated based on their speed, accuracy, efficiency in overtaking and avoiding obstacles, and adherence to the track.


GPS Map Camera
Guntur,AP,India
Tadepalle, Guntur, 522302, AP, India
Lat 16.440575, Long 80.623312
10/18/2023 02:17 PM GMT+05:30
Note : Captured by GPS Map Camera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Tadepalle, Guntur, 522302, AP, India
Lat 16.440592, Long 80.623545
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Note : Captured by GPS Map Camera


stop

Outcome

The event served as their hands-on with the serving robot design model II. Through demonstrations and discussions, they gained the required skills to begin their journey with raspberry pi application development with the necessary objectives.

List of students who Participated.

S.No	Register No	Name	Dept	Signature
1	2200520291	SK.Jameela Bhanu	BCA	
2	2200049042	S.Haritha	ECE	
3	2200049078	P.N.V.S.Kamalesh	ECE	
4	2200040235	K.N.Gokul	ECE	
5	2200040179	K.N.L.S.Dheemanth	ECE	
6	2200040188	B.Tharun Kumar	ECE	
7	2200049060	D.Revanth	ECE	
8	2200049188	K.Madhu	ECE	
9	2200049040	K.Sai Karthik	ECE	
10	2200033002	P.Pujitha	CSE	
11	2200033020	N.Mughda Mohana	CSE	
12	2200040809	B.Girishma	ECE	
13	2200031654	S.D.Arshiya Laiq	CSE	
14	2200040246	G.Surya Hrithika	ECE	
15	2200030361	L.Sai Sohith Varma	CSE	
16	2200089011	S.Guru Santhosh	AI&DS	
17	2200069058	M.Yoswanth Reddy	EEE	
18	2200069091	S.Chandra Sekhar Reddy	EEE	
19	2200040024	K.Punith Kumar	ECE	
20	2200040025	B.Narendra	ECE	
21	2200049110	M.Indra Kumar	ECE	
22	2200049124	K.Maruthi	ECE	
23	2200049143	K.Ranga Nitheesh	ECE	
24	2200049154	T.Sashi Reddy	ECE	
25	2200049162	N.Jaswanth	ECE	
26	2200090190	CH.Rithin	CSIT	
27	2200043217	V.Charan	ECE	
28	2200031197	K.Sandeep	CSE	
29	2200040238	D.Bhanu	ECE	
30	220040230	P.Lokeshwar	ECE	
31	2200040173	P.Manujnaath	ECE	
32	2200040269	Sendhil	ECE	

Faculty Incharge
Dr. S. Rooban

HoD
Dr. M. Suman

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