

GEETHANJALI COLLEGE OF ENGINEERING & TECHNOLOGY

Department's Monthly Report :October - 2023

1. Guest Lectures/ Webinars. Furnish the list of guest lecturers / webinars arranged.

S. No	Name of the Resource person	Designation and Organization	Topic covered	Target Attendance	Proposed by (Name of the faculty)	Course Outcomes attained
1	Dr.A.Hymavathi	Professor, Dept. of Humanities and Sciences, Sreyas Institute of Engineering and Technology, Hyderabad	Species and ecosystem diversity. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and optional values. Hot spots of biodiversity. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts; conservation of biodiversity: In-Situ and Ex-sit conservation. National Biodiversity Act.	II year B.Tech I semester (all sections) 146 students were a part of the event (04-11-2023)	Ms.ARL Padmaja Mr. M.Chathar Singh	To Understand the concept of bio-diversity, its values and conservation
2	Mr.Chandra Kishore Prasad	Senior Professor in IT & KAVACH, IRISSET	KAVACH An Indigenous Automatic Train Protection System with Cab Signaling	141 students from ECE, 58 students from EEE, and 5 faculty members from ECE registered and participated (18-10-2023)	Dr.G. Vallathan Mr.Chathar Singh,	☐ Understand the technology used in KAVACH ☐ Understand the safety, security measures in KAVACH ☐ Works on the principle of continuous update of Movement authority ☐ Understand the KAVACH architecture
3	Mr.Manoj	Physical Design Engineer, Takshila VLSI Technologies, Bangalore.	Career Opportunities in VLSI Design and Growth Prospects in Semiconductor Industry	54 ECE bstudents benefited (06-10-2023)	Dr.G.Sreelakshmi	
4	Mr.P.Chandra Prakash Reddy, Mr.M.Anand	Assistant Professor, ECE Dept.	Introduction to Arduino Programming	B.Tech II Year I-Semester students under centre of Excellence IoT&Embedded systems,	Mr.P.Chandra Prakash Reddy	☐ Understand the basics of Arduino Programming ☐ Design & implementation of Arduino UNO based Projects

2.Details of the Seminars/ Workshops /Refresher Courses / Orientation Courses/ FDPs attended by faculty

S.No.	Name of the Faculty	Nature of program attended: workshop etc..	Title of the Program	Date(s) attended	Sponsored body/institute	Remarks
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1	Mr. G.Rama Chandra Kumar	NPTEL-FDP (12 Weeks)	VLSI Design Flow: RTL to GDS	Jul-Oct,2023	Govt. of India IIT Madras	
2	Mrs. Savithri Padma Priya. V	NPTEL-FDP (12 Weeks)	Simulation of Communication Systems Using Matlab	Jul-Oct,2023	Govt. of India IIT Madras	
3	Mr. D.Venkata Rami Reddy	NPTEL-FDP (12 Weeks)	Simulation of Communication Systems Using Matlab	Jul-Oct,2023	Govt. of India IIT Madras	
4	Mrs. M.Laxmi	NPTEL-FDP (12 Weeks)	Multi-Core Computer Architecture	Jul-Oct,2023	Govt. of India IIT Guwahati	
5	Dr.G.Sreelakshmi	AICTE-ATAL- FDP	Empowering Defense Applications with Advanced VLSI Design	09-10-2023 to 14-10-2023	Malla Reddy Engineering College, Hyderabad	

Details of NPTEL / SWAYAM Courses:

S.No	Name of the faculty	Name of the Course	Secured Score	Award of certificate	Duration of the course	Month & year
1	Mr. G.Rama Chandra Kumar	VLSI Design Flow: RTL to GDS	61%	Elite	12 Weeks	Jul-Oct,2023
2	Mrs. Savithri Padma Priya. V	Simulation of Communication Systems Using Matlab	66%	Elite	12 Weeks	Jul-Oct,2023
3	Mr. D.Venkata Rami Reddy	Simulation of Communication Systems Using Matlab	82%	Elite Silver medal	12 Weeks	Jul-Oct,2023
4	Mrs. M.Laxmi	Multi-Core Computer Architecture	72%	Elite	12 Weeks	Jul-Oct,2023

3. Details of Research Publications.

Journal Papers:

S. No	List of Authors	Title of the Paper	Journal Name	Year of Publication	ISBN/ ISSN/	Scopus Index / SCI
1	Dr. B.L.Prakash	Nurturing Agribusiness: A Sustainable Farming System for Tomato Crop Management Leveraging Machine Learning	International Journal on Recent and Innovation Trends in Computing and Communication	12 August 2023	ISSN: 2321-8169 Volume: 11 Issue: 10s DOI: https://doi.org/10.17762/ijritc.v11i10s.7696	Scopus

Conference Papers:

S. No	List of Authors	Title of the Paper	Conference Name	Year of Publication	ISBN/ ISSN/	Indexing
1	Mr. K. Rama Rao	Time-Series Cryptocurrency Forecasting using Ensemble Deep Learning	2023 International Conference on Circuit Power and Computing Technologies (ICCPCT) (2023 International Conference on Circuit Power and Computing Technologies)	2023	DOI: 10.1109/ICCPCT58313.2023.10245083	Scopus (IEEE Xplore)
2	Mrs. Y.Naga Lakshmi	Modeling and Simulation of Multi Gate MOSFET with Reduced Short Channel Effects for High Power Applications	2nd INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN ENGINEERING (ICETE 2023)	2023	B. Raj et al. (Eds.): ICETE 2023, AER 223, pp. 568–578, 2023. https://doi.org/10.2991/978-94-6463-252-1_59	Scopus (Springer Nature)

3	Mrs. M.Laxmi	IoT-based Pest Detection and ALert System for Farmers using CNN-LSTM Approach	International Conference on Self-Sustainable Artificial Intelligent Systems (ICSSAS 2023)	18-10-2023 to 20-10-2023	Paper Presented	Scopus (IEEE Xplore)
4	Dr. G. Vallathan	An Analysis and Study of Brain Cancer with RNN Algorithm-Based AI Technique	7th International Conference on I-SMAC (IoT in Social, Mobile, Analytics, and Cloud) (I-SMAC)	11–10-2023 To 13-10- 2023	Paper Presented Electronic ISSN: 2768-0673, ISSN: 2768-0665, DOI: 10.1109/I-SMAC58438.2023.10290397 https://ieeexplore.ieee.org/document/10290397	Scopus (IEEE Xplore)

4. Students Higher Education Data.

S. No	Roll No.	Name of the student	Name of the program and University	TOEFL/ GRE/ GMAT/ IELTS Score, if any
1.	20R11A0469	Ch.Ananya	Ms in USA	IELTS Score :7.5 GRE Score :322/346
2.	19R11A0419	K. Saidurga	MS in UK	Score Card not required for Uk
3.	19R11A04F5	D.Abhinaya	Ms in USA	Duolingo Score : 130
4.	16R11A04N3	M.Chandra Shekhar	Ms in USA	IELTS Score :7.0
5.	16R11A04J8	Y.Vamsi	Ms in USA	IELTS Score : 6.5 GRE Score :321/346
6.	18R11A0434	M.Dharani	Ms in USA	Duolingo Score : 90
7.	17R11A04N9	R. Eswar Sai	Ms in USA	IELTS Score : 6.5

5. Books/Chapters published by faculty as single author/ one of the authors or as editor

S. No:	Faculty Name	Title of the Book, or Chapter	Date of Publication	ISBN/ ISSN
1	Dr. M. Shoukath Ali	Principles of 5G Mobile Communications <i>Academic Guru Publishing House (AGPH), Bhopal, Madhya Pradesh</i> Amazon link: https://amzn.eu/d/02QndIx	10-09-2023	ISBN-10 : 8119832019 ISBN-13 : 978-8119832019

6. Details of Students Co-curricular/ Sports Achievements/ NSS Activities

i. Co-Curricular activities

S. No	Roll No. of the student	Name of the Student	Name of the Event	Organized by, specify College/University	Date(s) of Participation	Specify Prize(s) won, if any
1	B.Tech IEEE Student members of all years	Registered participants: 49 Attended participants: 33 IEEE members: 33	IEEEEXTREME 17.0 (24 hours Global Coding Competition)	IEEE GCET SB Faculty coordinator: Mrs.S.Jyothirmaye eand Mr.D.Venkata Rama Reddy	28/10/2023, 5:30AM – 29/10/2023 5.30 AM	
2	B.Tech IEEE and Non-IEEE Student members of all years	Registered participants: 173 Attended participants: 168 IEEE members:15 Non- IEEE members:158 Special awards/achievements :1 st prize RS.1500,2 nd prize RS.1000,3 rd prize RS.750	IEEE DAY 2023 CELEBRATIONS Faculty coordinator: Mrs.S.Jyothirmayee and Mr.D.Venkata Rama Reddy.	IEEE WIE AG, POWER AND ENERGY SOCIETY OF GCET SB	12/10/2023, 1:00PM - 3:00 PM	

3	22R11A04J0	P.GREESHMA	Instomania 3.0 -offline event Faculty coordinator: Mr.M.Sowjanya	ISTE, GCET (ISTE event under ISTE student chapter) No. of participants: 269 from all branches	16-10-2023	
						Winners
	22R11A04J4	P.SREEJA REDDY				Winners
	22R11A04H2	M.SHNTHI				Winners
	22R11A04E3	Y.ANJALI				Winners
	22R15A0402	B.DIVYA				First Runner Up
	22R15A0406	V.SWATHI				First Runner Up
	21R11A04J6	M.THARUN				Second Runner Up
	21R11A04H6	K.SNEHITH				Second Runner Up
	21R11A04F6	B.ANUSHMAAN				Second Runner Up
4	21R11A04D1	Machani Poojitha	Mindzone 4.0	under the Srujanastra club Faculty coordinator: Mr.M.Laxmi	13-10-2023	Winners
	21R11A0415	J.Raghavendra Raghavendra Reddy				Winners
	22R11A0449	Adapa Sanjana Devi				Winners
5	21R11A0483	M.Rohit	Bihar Innovation Challenge-2023	Faculty coordinator: Dr.G.Vallathan	04-10-2023	participated
	21R11A0460	D.Rafi			to	participated
	---	Md.Arif			05-10-2023	participated

ii.Details of NSS activities taken place (Overall Coordinator : Mr.R.Odaiah)

S. No.	Activity details	Date(s)	Organized by College/University
1	SHRAMADAAN FOR SWACHHATA	01/10/2023	NSS UNIT in association with ECO Club (25 students are participated)
2	Khadi Mahotsav	21/10/2023 to 31/10/2023	NSS UNIT in association with on the memory of Sri MahatmaGandhi (183 students are participated)

7.Any other relevant/significant information:

- ☐ Our students idea of "**Skin Health Monitoring System using AI Model on STM32**" selected in the **InnovationFair-2024** organizing by **STmicroelectronics at Greater Noida.**

Team members: P.Uday Kiran IV- A, V.Pranay Kumar IV-D and Mr Kiran IV-D
Faculty Mentor: Dr. G. Sreelakshmi

Signature of faculty member in-charge
Department
Dr.Appala Raju Uppala

Signature of Head of the

Dr. G .Sreelakshmi



On 06/10/23 placement drive completed successfully, from ECE 2 students selected for CONNER with 6.00LPA, 1 . Y Geethanjali 2. Sathwika



GEETHANJALI COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report on

Workshop on

“Introduction to Arduino Programming”

held on 09th to 13th October 2023

Department of ECE has organized a Workshop on “Introduction to Arduino Programming” on 09th to 13th October 2023 for the B.Tech II Year I-Semester students under centre of Excellence IoT&Embedded systems, ECE Department.

Resource Persons:

Mr. P.Chandra Prakash Reddy, Assistant Professor, ECE Department

Mr.M.Anand, Assistant Professor, ECE Department

Faculty Coordinator:

1. Mr.P.Chandra Prakash Reddy, Assistant Professor, ECE Department.

Objectives:

Develop ability to

- ☐ Understand the basics of Arduino Programming
- ☐ Design & implementation of Arduino UNO based Projects

Aim:

The main objective of this workshop is to provide the students with an opportunity to develop their skills in Arduino Programming using C programming which would be very useful in doing Embedded Systems based projects. It also helps the students to learn about interfacing devices and understand the different kinds of input devices that can be used to sense the various parameters like Moisture, DHT, and Pressure etc. in the real world. The workshop aims to enlighten the students who wish to enhance their programming skills in the area of Embedded Systems.

For this program, 26students from ECE were registered. Students gained in-depth knowledge about Arduino Programming and IoT.

Topics covered:

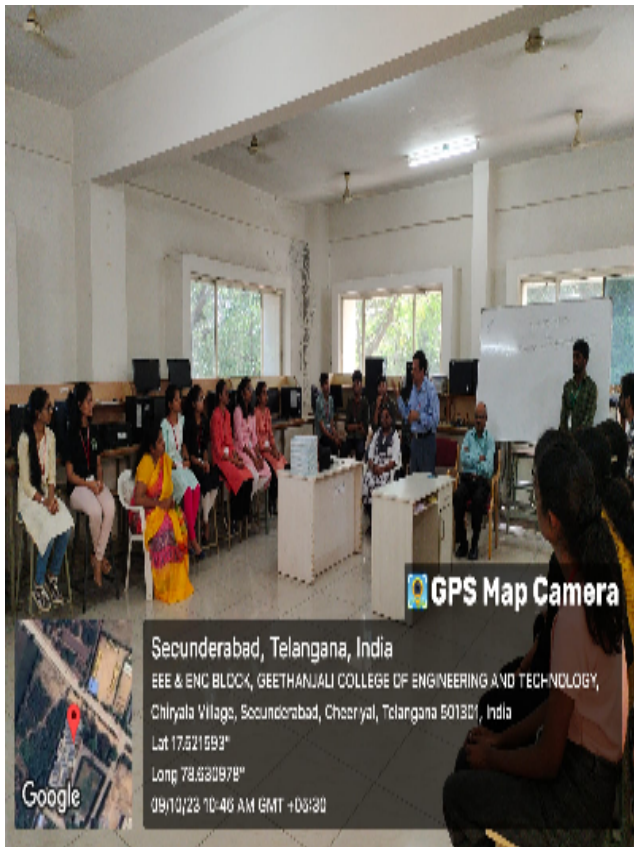
- Introduction to Microprocessors, Microcontrollers and Embedded Systems, Arduino Board Description, Introduction to Sensors and Actuators, Software installation.
- Basic Arduino programming concepts including applications like LED Blinking, Push button switches, Fire sensor, Relay, Interfacing of Servo Motor, Ultrasonic sensor, Gas sensor, Soil moisture sensor, LCD, Submersible Motor, Bluetooth.

Day 1: 09.10.2023: Inauguration and Introduction about Arduino Programming

On first day, P.Chandra Prakash Reddy, Assitant Professor, ECE department started the session by extending warm welcome to Prof.B.Hari Kumar, Dean - School of Electrical & Communications Engineering and Dr.M.A.Khadar Baba, HoD ECE, Ms.B.Sreelatha, In charge group head, digital system group and the participants, And also emphasized on the importance of IoT and its Applications in our day to day life. Then, focused on the importance of this workshop and briefly explained the schedule of the program.



Prof.B.Hari Kumar, Dean - School of Electrical & Communications Engineering and Dr.M.A.Khadar Baba, HoD ECE, briefed about the need and importance of Arduino and IoT in the day-to-day life, And tried to find out the expectation of the students from the workshop planned. A fruitful interaction took place among the participants and the resource person and got the best out of it.



In the first session, Mr.P.Chandra Prakash Reddy briefed about the introduction to Microprocessors, Microcontrollers and Embedded Systems, Arduino Board Description, Introduction to Sensors and Actuators.

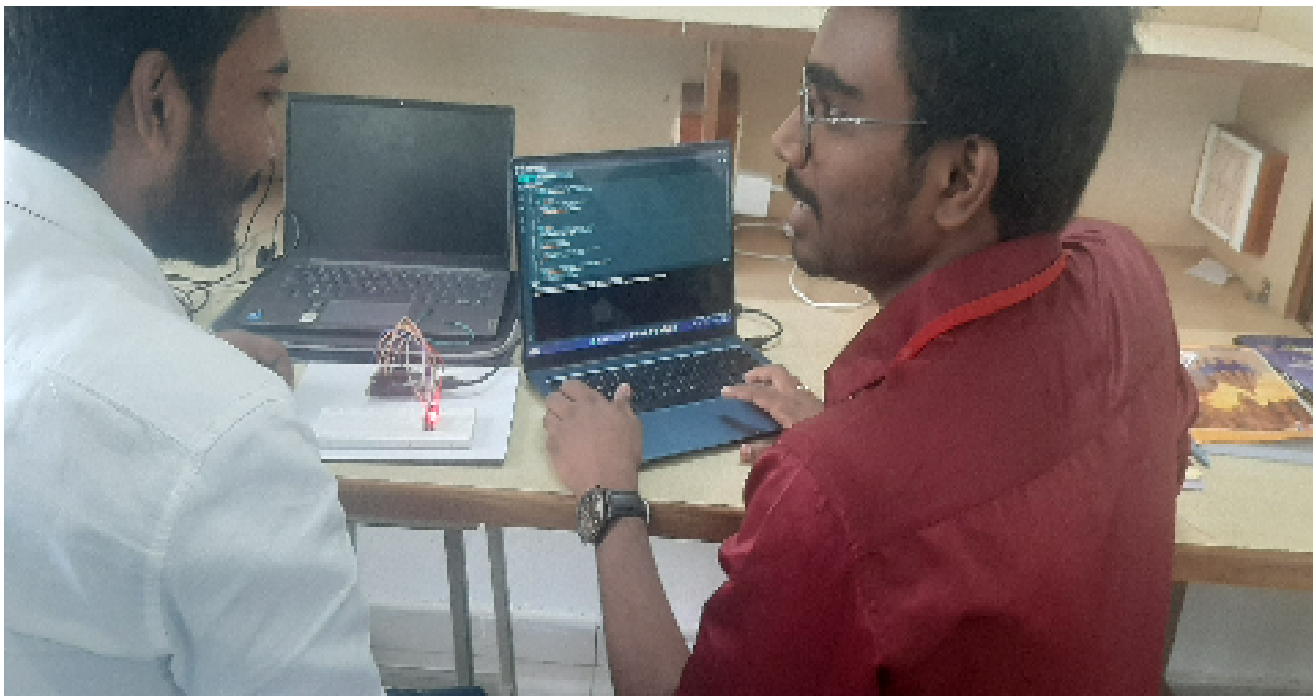


In the afternoon session of day 1,demonstrated the Installation of Arduino software, execution procedure of Arduino IDE tool, different segments in a sketch, executed few simple programs by compiling and dumping the codes into the Arduino UNO controller and demonstrated the participants how to verify the output on a serial monitor. Lecture was followed by hands on session by Mr.M.Anand,where the students executed some simple programs Sensor interfacing based programs.



Date: 10th October 2023 (Tuesday)

On second day, Mr.P.Chandra Prakash Reddy started his session with the programming logic, looping, conditions and the syntax to interface sensors and actuators to Arduino. While explaining these programs, the participants actively interacted with the resource person and discussed the possibilities of implementing the same programs in different ways.

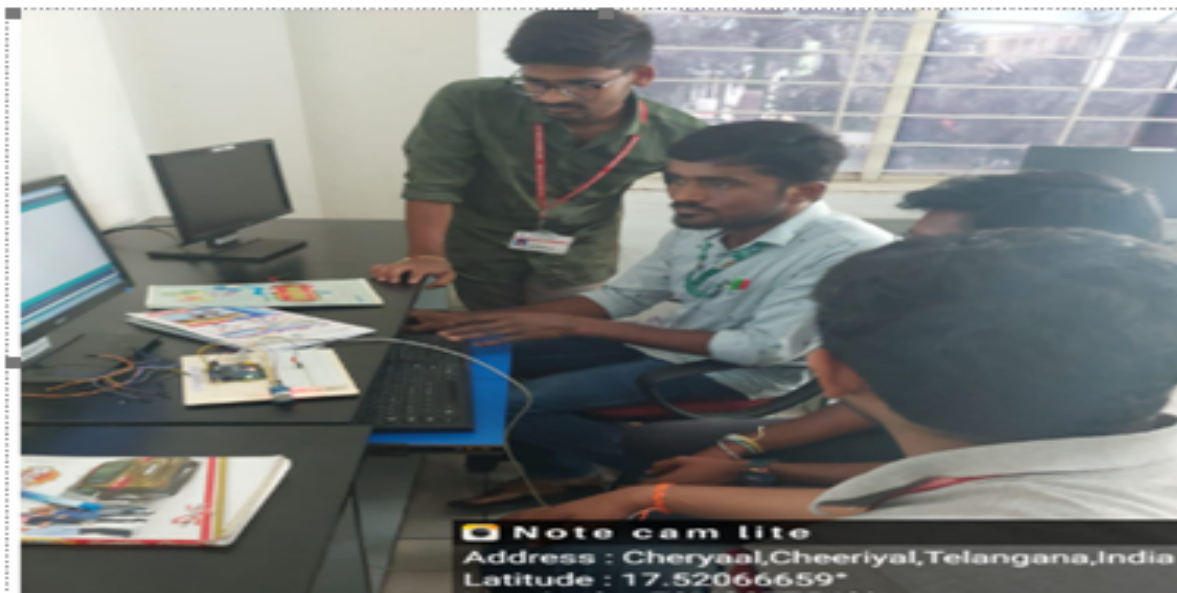


Few key points to be taken care during the programming and execution of the codes was briefed by Mr.M.Anand. The students were very keen and interested to implement the programs.



Date: 11th October2023 (Wednesday)

On the third day, a good knowledge transfer was done and all the students were able to interface the sensors and observe the expected outputs. The participants were happy to be a part of the practical session.

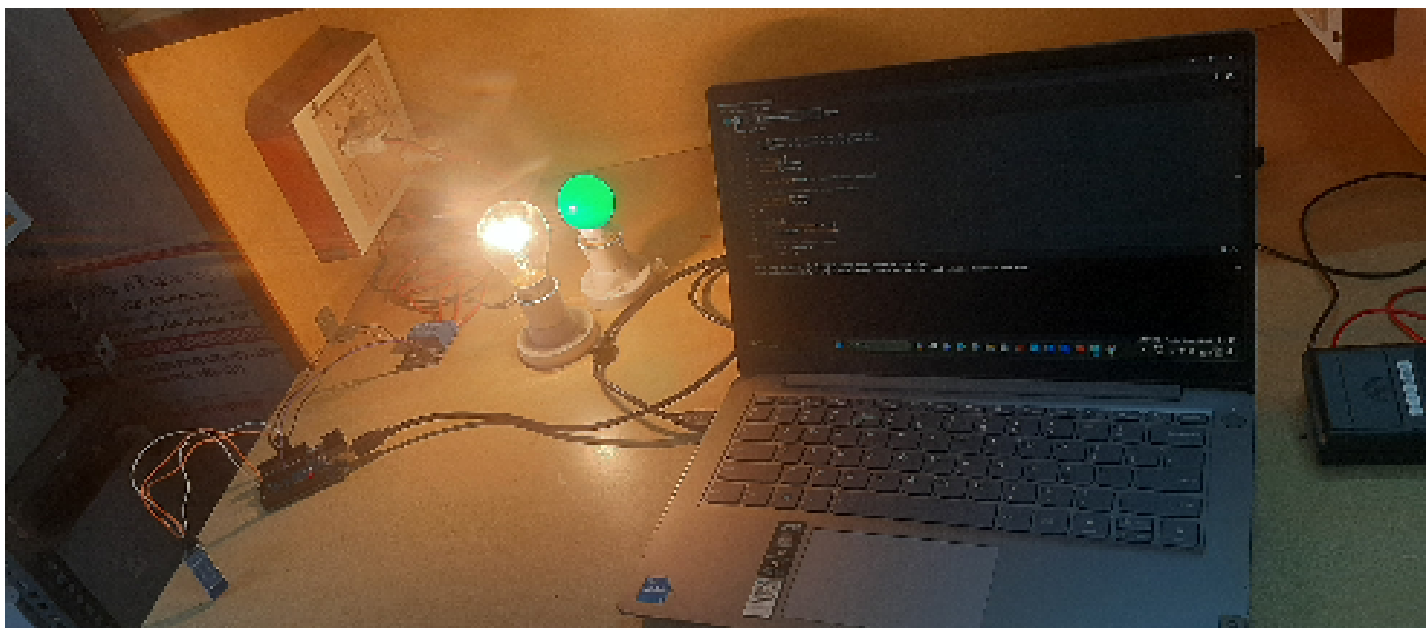
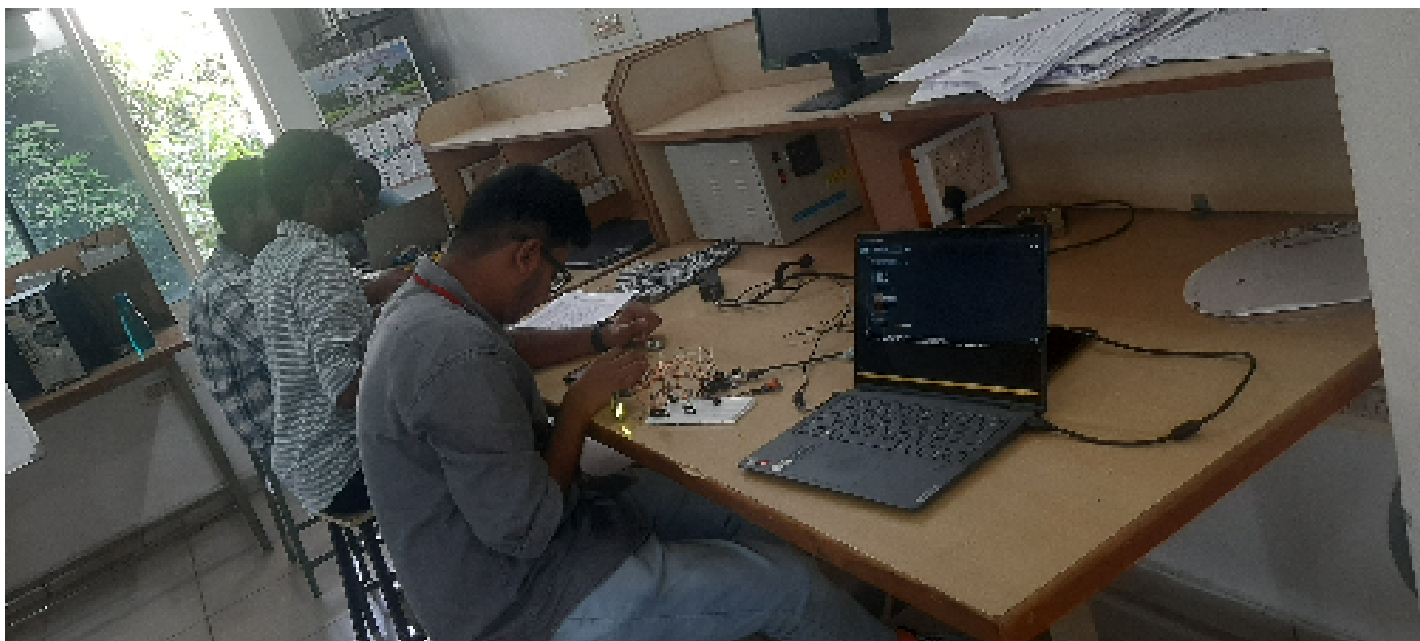


Date:12th October2023 (Thursday)

The students designed few projects based on the hands-on Sessions conducted.
To name a few, the projects like

- ❖ Obstacle detector using ultrasonic sensor.
- ❖ Aqua watch cutting edge water level monitoring solution.
- ❖ Alcohol detector and automatic toll gate
- ❖ IC tester with embedded truth table. etc...

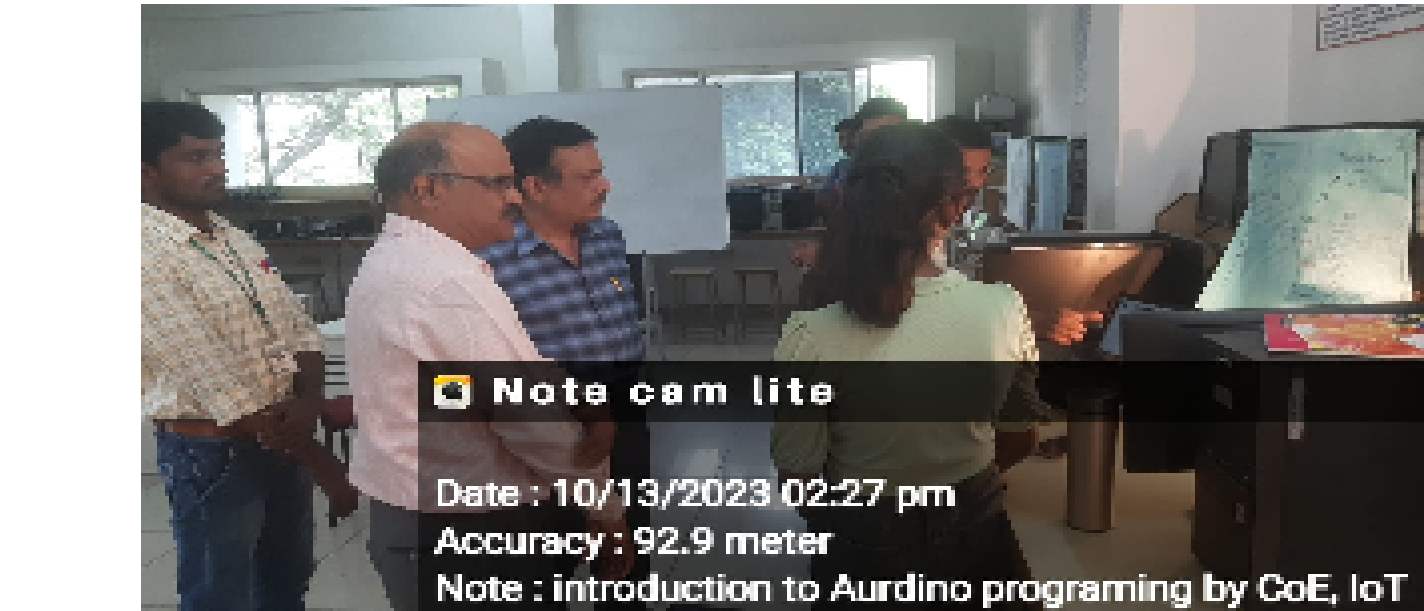
Were implemented by the students.



Date: 13th October2023 (Friday)

An expo of the Projects designed by the students was organized to provide participants with a practical learning experience and an opportunity to showcase their projects.

This event aimed to foster creativity, innovation, and skill development among the participants. The event spanned a full day and featured various hands-on workshops followed by a project exhibition.

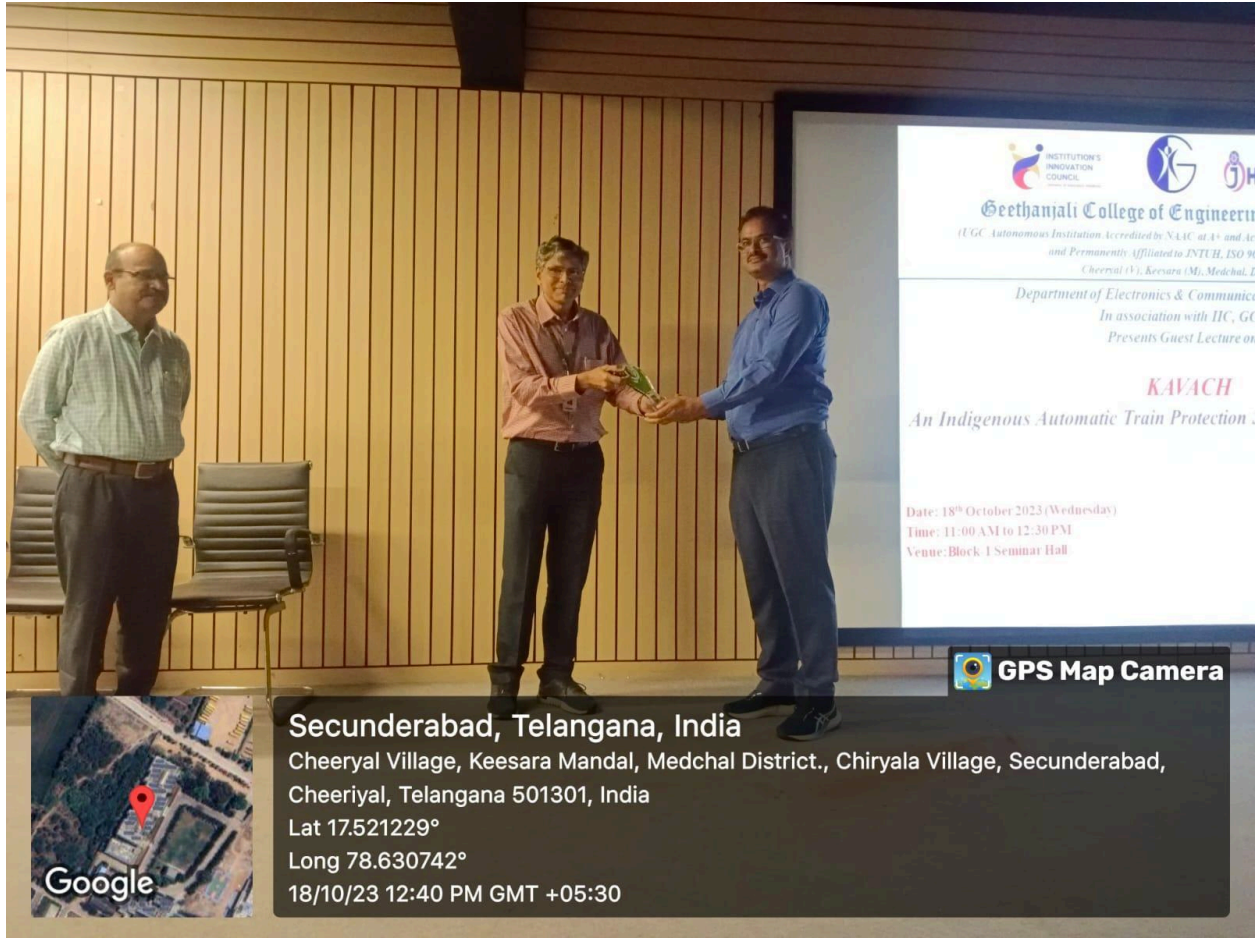


The Hands-on Session and Project Exhibition provided participants with valuable practical skills and a platform to showcase their creative projects. It fostered a sense of innovation, collaboration, and learning. The event was a success, and participants and visitors left with a deeper appreciation for hands-on learning and the potential for innovation in various fields.



As a part of FDP on 13/10/2023 visited Astra Microwave Products Limited. MAHESWARAM





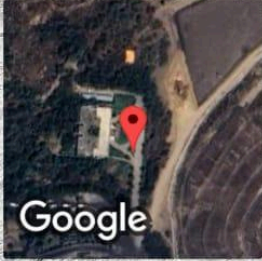


Our college team won Cricket tournament organized by MGIT EKALAVYA 2023 - Inter-Collegiate Sports Meet during 13th -15th, October'2023





GPS Map Camera



Secunderabad, Telangana, India

Unnamed Road, Secunderabad, Telangana 500083, India

Lat 17.524754°

Long 78.587118°

19/10/23 10:42 AM GMT +05:30



 **GPS Map Camera**

Secunderabad, Telangana, India

Cheeryal Village, Keesara Mandal, Medchal District., Chiryala Village, Secunderabad,
Cheeriyal, Telangana 501301, India

Lat 17.521028°

Long 78.63068°

28/10/23 07:39 PM GMT +05:30

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