CENTRE FOR HACKATHON LAB

A hackathon is a competitive event in which teams of designers, developers, and subject matter experts collaborate to create solutions for a specific problem within a defined time frame. The goal is to build a working prototype in form of a website, an app, or a robot to solve a given problem. Known also as hackfest or hack day, the event gives participants the opportunity to network, collaborate, and productize their ideas. The most popular form of a hackathon is a physical or offline one. It usually lasts for 24 hours and is generally scheduled on the weekends. Participants are encouraged to come up with creative solutions to the solve problem statements for specific themes mentioned in the hackathon. For the participants, a hackathon is a perfect platform to explore new technology, work on a project they are passionate about, and build a working proof-of-concept in a short span of time. It's also an opportunity for them to network and collaborate with like-minded people who are passionate about building products. Hackathons are no longer restricted to just the developer community. Anyone who can contribute to building a product can participate in a hackathon.

List of Students

| SL. NO	NAME	YEAR/DEPARTMENT
1.	ABINAYA C	IV ECE A
2.	ARCHANA S	IV ECE A
3.	JEBA VAISHYA JULIET V	IV ECE A
4.	VANNIYA SATHYA S	IV ECE C
5.	SINTHUJA.S	IV ECE C
6.	UMA SIVA PRIYA R	IV ECE C
7.	SANGEETHA R	III ECE B
8.	NAHOMIA G	III ECE B
9.	NARMATHA N	III ECE B
10.	PREETHA N	III ECE B
11.	RAJA LAKSHMI R	III ECE B
12.	RAMIYA R	III ECE B
13.	PAVITHRA T	III ECE B
14.	MAGESHWARI V	III ECE B
15.	MOUNIKA T	III ECE B
16.	VETHANBU LIBERTIN CHRISTIANA	II ECE B
17.	PRATHAP C	II ECE B
18.	RAJAGOPAL L	II ECE B
19.	RAMA KRISHNAN.M	II ECE B
20.	SHEIK MAHABOOB BASHA M	II ECE B
21.	AUGUSTIN I	II ECE A
22.	AUGUSTIN JEBA KUMAR S	II ECE A
23.	JEYSON PATRICKS J J	II ECE A
24.	SHINY CROSS	II ECE A
25.	SUBATHRA S	II ECE A
26.	SYED NOORUL JASMINE A	II ECE A

STUDENTS EXPERIENCE IN HACKATHON LAB

Fire Fighting Robot:

This advanced firefighting robotic system independently detects and extinguishes fire. Fire spreads rapidly if it is not controlled. In case of a gas leakage there even may be an explosion. So, in order to overcome this issue, safe guard live of our hero, our system comes to the rescue. This firefighting robotic system is powered by Arduino Uno development board it consists of the HC-SR04 ultra-sonic sensor mounted on a servo motor for obstacles detection and free path navigation, it is also equipped with the fire flame sensor for detecting and approaching fire it also makes use of water tank and spray mechanism for extinguishing the fire. Water spraying nozzle is mounted on servo motor to cover maximum area. Water is pumped from the main water tank to the water nozzle with the help of water pump.
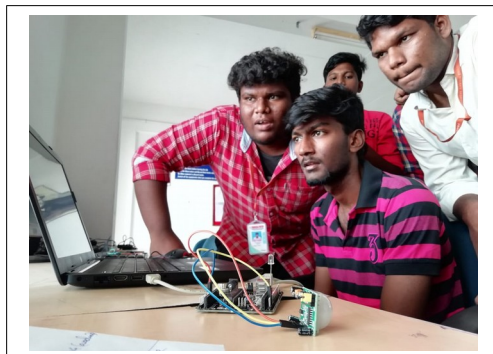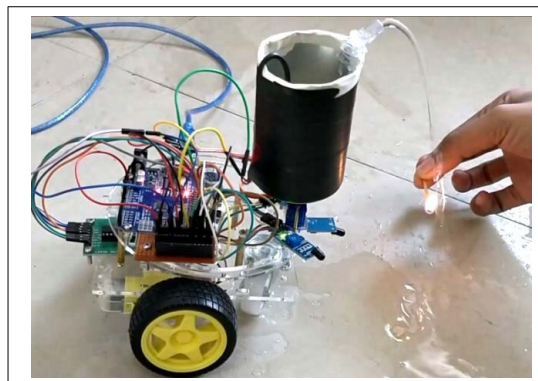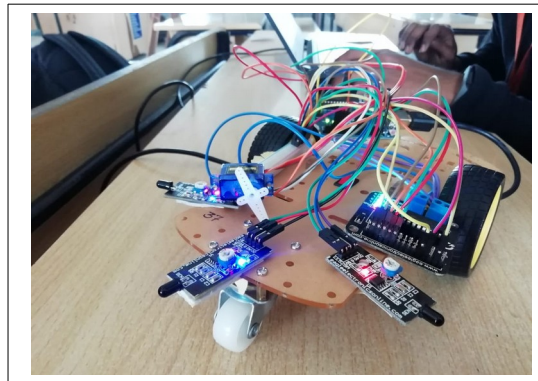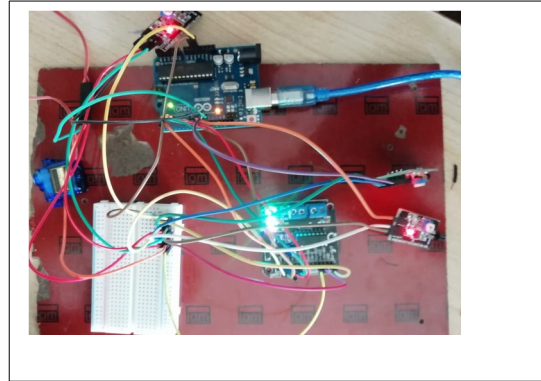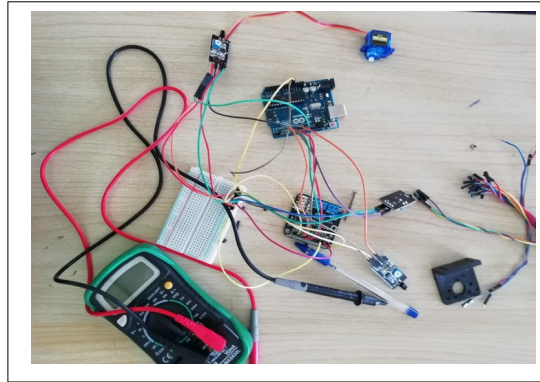
Maze Robot

A maze solving robot is designed to move in a maze and escape through it by following its walls. A maze solving robot is quite similar to a line follower. Like a line follower has to follow black strip lines, a maze

follower finds a wall and starts following it until it finds an escape route. But unlike a line follower which has just to follow a predetermined route, a maze follower is designed to find an escape route that is not known beforehand.
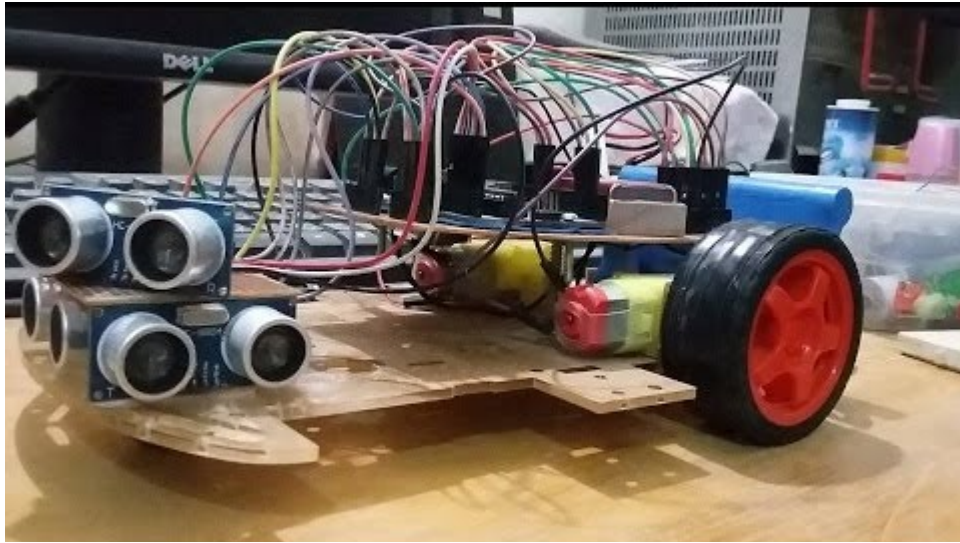

DISTANCE MEASUREMENT SYSTEM

Ultrasonic sensors are great tools to measure distance without actual contact and used at several places like water level measurement, distance measurement etc. This is an efficient way to measure small distances precisely. In this project we have used an Ultrasonic Sensor to determine the distance of an obstacle from the sensor. Basic principal of ultrasonic distance measurement is based on ECHO. When sound waves are transmitted in environment then waves are return back to origin as ECHO after striking on the obstacle. So we only need to calculate the travelling time of both sounds means outgoing time and returning time to origin after striking on the obstacle. As speed of the sound is known to us, after some calculation we can calculate the distance.
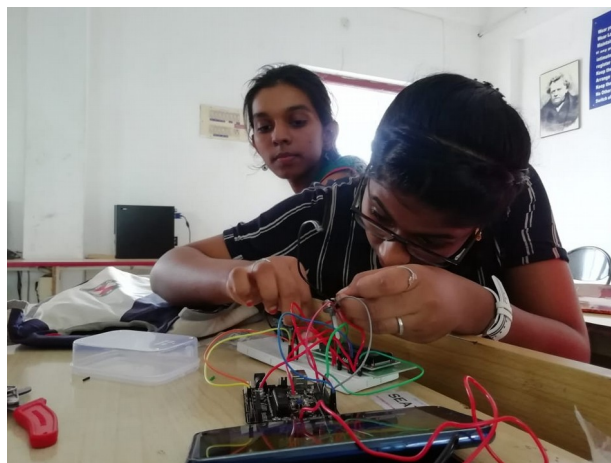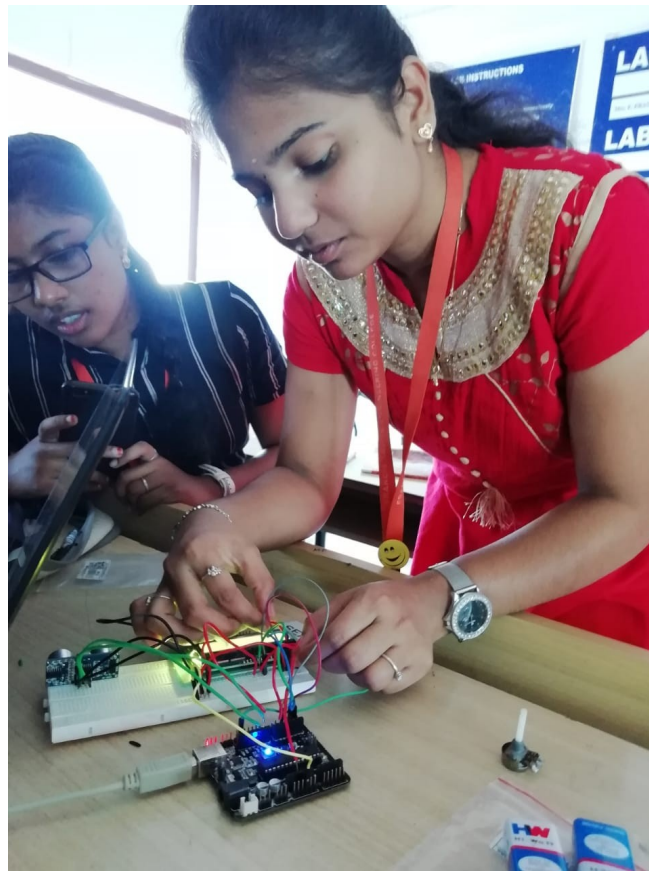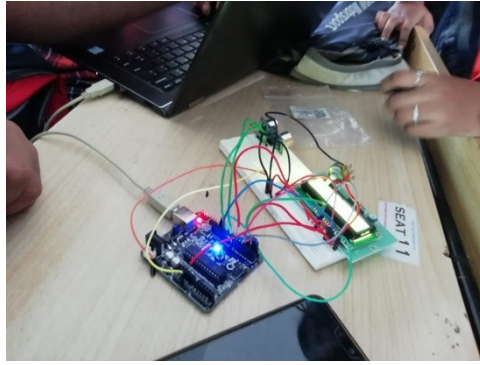
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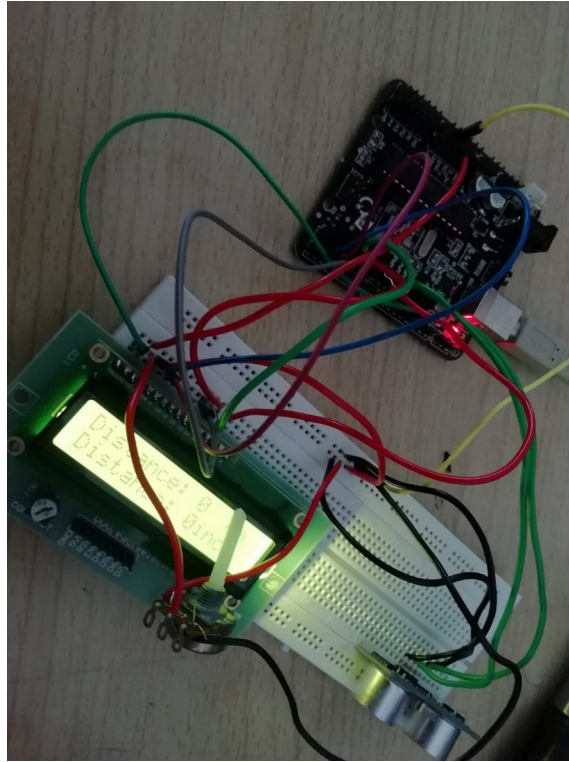
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LIST OF CENTRE FOR HACKATHON LAB STUDENTS PARTICIPATED IN VARIOUS EVENTS

SL.NO	Name	Event	College	Date
1.	Kasinatha Guru E	Hackathonmania 2020	SCAD College of Engineering and Technology	22-02-2020
2.	Archana M			
3.	K Sneha			
4.	G. Santhiya			
5.	A Syed noorul Jasmine	Outstanding Performance in Prelims round of IOT Challenge 2020	Francis Xavier Engineering College	20.12.2019 & 21.12.2019
6.	Vethanbu Libertin Christiana			
7.	A Syed noorul Jasmine	Augmented Reality Workshop	Indian Institute of Space Science and Technology	22.2.2020 & 23.2.2020
8.	Vethanbu Libertin Christiana			
9.	Shiny Cross C	Smart India Internal Hackathon	Francis Xavier Engineering College	8.01.2020
10.	Vethanbu Libertin Christiana			
11.	A Syed noorul Jasmine			
12.	Subathra S			
13.	Shiny Cross C			
14.	Jeyson Patricks J			
15.	Augustin Jeba Kumar S			
16.	Rajagopal L			
17.	Sheik Mahaboob Basha			
18.	M D Priya			
19.	Augustin Jeba Kumar S	Project Expo ICAR KVK	Francis Xavier Engineering College	4.1.2020
20.	Rama Krishnan M			
21.	Prathap C			
22.	Augustin I			
23.	Rajagopal L			
24.	Jeyson Patricks J			
25.	ABINAYA C	Attended Boot Camp and Selected for Rs 1 laks Startup Competition at Chennai on 13.3.2020	Anna University Regional Centre	13.3.2020
26.	ARCHANA S			
27.	JEBA VAISHYA JULIET V			
28.	Augustin Jeba Kumar S	First prize Paper Presentation	Einstien College	22.2.2020
29.	Augustin I	First prize Paper Presentation	Einstien College	22.2.2020
30.	JEYSON PATRICKS J J	Paper Presentation	NEC	16.2.2020
31.	Augustin Jeba Kumar S	Paper Presentation	NEC	16.2.2020

HACKATHONMANIA 2020

CENTRE FOR HACKATHON LAB

SMART INDIA INTERNAL HACKATHON

CENTRE FOR HACKATHON LAB

TNSI PROJECT COMPETITION

CENTRE FOR HACKATHON LAB

ORGANIZING SMART INDIA INTERNAL HACKATHON

Report on '*INTERNAL SMART INDIA HACKATHON*'

Centre for Hackathon lab of our college has organized **'INTERNAL SMART INDIA HACKATHON'** for all streams of the students. The internal hackathon was organized on 9th and 10th of JAN 2020 at MBA Seminar Hall. The program was organized by IIC President, EDC coordinators and hackathon lab coordinator. The Program was started by the welcome address by Dr. Lourdes Poobala Rayan by introducing the juries and EDC Coordinators. Totally **449** students of ECE,EEE,IT,CSE,Mech and MCA were registered and participated in the event and presented their projects on various problem statements available in SIH website. Totally four juries participated to evaluate the student's project. Two juries for software and hardware are invited for jury.

The Juries are

SL NO	NAME	Designation	Organization	Mobile	Email
1	Dr. Lakshmi Narayanan K	Assistant Professor	Francis Xavier Engineering college	98406 24407	kyelyen@gmail.com
2	Dr. Manohar E	Assistant Professor	Francis Xavier Engineering college	94436 70173	manohar@francisxavier.ac.in
3	Dr. Neethi Manickam I	Professor	Francis Xavier Engineering college	8838992375	neethimanickam@francisxavier.ac.in
4	Dr. Ravi A	Professor	Francis Xavier Engineering college	98651 12057	ravieee@francisxavier.ac.in

The Coordinators of this program was R.Prem Ananth Coordinator of EDC cell of ECE department, Hackathon lab in charge and College SPOC for SIH.

CENTRE FOR HACKATHON LAB

Introduction talk by Dr. Lourdes Poobala Rayan, IIC President

IIC President Introducing Hardware hackathon jury Dr. Ravi A, Professor, EEE of FXEC

IIC President Introducing Hardware hackathon jury Dr. Dr. Neethi Manickam I, Professor, MECH of FXEC
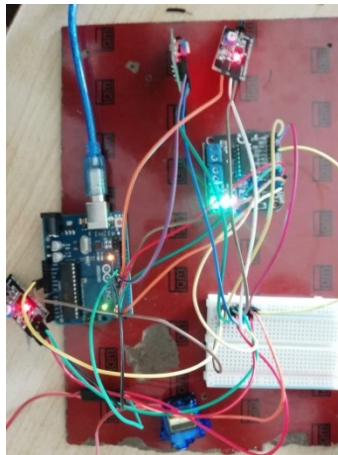
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Juries of Software Hackathon Dr. Lakshmi Narayanan K AP/ECE and Dr. Manohar E AP/CSE

Students presenting the project

Students presenting the demo of project

Students participated in the event