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### NATIONAL SCIENCE DAY CELEBARATION 2022

#### SCIENCE CLUB - "PROJECT HACKATHON EXPO"

Name of the Department	Science Club
Name of the Event	National Science Day <b>"PROJECT HACKATHON EXPO"</b>
Date and Time of the Event	11/03/2022 – Friday, 10.00 AM TO 12.30 PM.
Location	CSE Seminar hall, Kings Engineering College.
Name of the Judge	Dr. Alamelu/ HoD- Chem. Dr. Ponmanaselvan/ HoD- Maths.
Welcome address	Mr. A. Anantharaj, AP – Chem.
Event Intro	Dr. Sahaya Jude Dass/ HoD - Physics.
Best Project award	Dr. John Oral Baskar, <b>Principal.</b>
Vote of thanks	Dr. M. Kumar, Associate Professor – Chemistry.









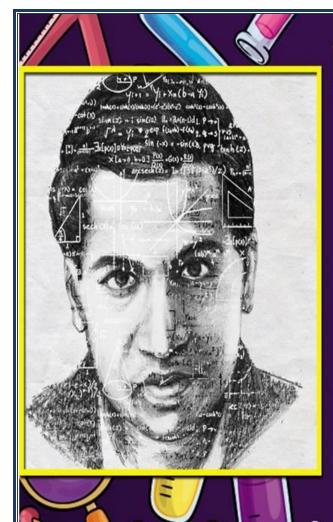
Dr. M. Kumar SCIENCE Club Coordinator

#### **REPORT - SCIENCE PROJECT EXPO -2022**

Kings Engineering College conducted a National science day "PROJECT HACKATHON EXPO" in our campus. On behalf of Department of Science and Humanities, Dr. M. Kumar, Associate Professor/Chemistry act as coordinator for Science Day "PROJECT HACKATHON EXPO" 2022. The programme was conducted on 11-03-2022, Friday in CSE Seminar Hall, A wing., Ground floor.

In this Expo more than 25 batch student science projects were displayed and explained their ideas from various branches. Each project consists of 4 students and they were actively participated and demonstrated a well conceptual and thematic project models with the guidance of faculties in our college. After evaluating the projects explained by the concern students, three best projects have been selected for awards conducted on 11-03-2022.

During this programme our students interacted with the judges to share their knowledge on basic and advance concept of science such as basic laws, principle of working model and applications of science.





# STEAM - SCIENCE CLUB "PROJECT HACKATHON EXPO" "NATIONAL SCIENCE DAY" DATE : 11/03/2022 [Friday] TIME : 10.00 AM

CHAIRPERSON Dr.Nalini Selvaraj, M.Com., M.Phil., Ph.D DIRECTOR Mr.S.Amirtharaj, B.Tech., MBA(UK) PRINCIPAL Dr.T.John Oral Bhaskar, M.E., Ph.D CONVENOR Dr.M.Kumar, ASP/CHEM

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## **SCIENCE CLUB – Project Expo**

### **Project Description**

### **Future Transportation and Communication**

Team Members: (I CSE A)

Franklin Joshua S and Daniel Raj K Projects Made:

Drone, Mini Tesla (Automated Car) and 3D Analysing Bot for Travel Project Description:

Hey there!!! Our project is purely based on future transportation and communication in which we created 3 bots for the welfare of the community and they all are eco friendly bots... No pollution or Harmful substances been emitted during the work progress.

Drone: It is been developed with the help of AI and weights exactly 85 grams, it can used for may applications like farming, surveillance, Delivery, Medical purposes Etc...

Mini Tesla (Automated Car): It's a four-wheeler vehicle which can be controlled via a self-developed app, which is so good everything can be done with in a click and it's a high-speed model too.

3D Analysing Bot for Travel: This a bot which 3D render the environment around it and can avoid obstacles and drive safely to location by itself using GPS and IR Sensor.



### SMART LOCK SYSTEM

Team Members: (I CSE B)

Nisanth S, Vignesh J and Vilojethan V

Description:

\*This Project is undertaken to demonstrate the role and working of fingerprint lock

\*It is more secure compared to any other lock since it can be accessed only by the authorized members

\*It is mostly used in the banking sector and highly secure systems

\*We have Illustrated the working and applications of the fingerprint lock system

### Components:

Arduino UNO, Solenoid lock 12V, Optic sensor, Jumper wires

### Working:

This project works by the fingerprint input we have stored inside the optic sensor by using a relevant code written in the Arduino UNO. This gives access to the authorized user and we can also use multiuser accessibility.



# **HYDROGEN BALLOON**

Team members:

- 1. Vigneshwaran D
- 2. Yuvaraj
- 3. Sanjay kumar
- 4. Sam Immanuel

Project title:

Hydrogen balloon

Project Description: When a bottle is filled with water and tiny aluminium foils and reacted with NaOH with a ballon on the top .. it's exerts Hydrogen and the balloon is filled with Hydrogen gas



# **THUNDER JET**

Team Members : I ECE B

- 1. Hemanth kumar .M
- 2. Mani Pradeep .V
- 3. Perarasu .I
- 4. Harikrishnan .R

Description :

"TESLA COIL"

Invented by -Nikola Tesla in 1981.

- It is used to produce high voltage,low-current,high frequency alternating current electricity.
- The tesla coil works on a principle to achieve a condition call resonance.Here,primary coil emits huge amount of current into the secondary coil to drive the secondary circuit with maximum energy.
- The fine tuned circuit helps to shoot the current from primary to secondary circuit at a tuned resonant frequency.

WORKING:

• The tesla coil works with electro magnetic induction according to which, when a conductor is placed under a varying magnetic field ,a small current will be induced into the conductor.



### **SMART HOME AUTOMATIONS**

PROJECT NAME : TOM (Things Of Memory) STUDENTS NAME: 1. JENSING SAMUEL A S, 2.MAGESHWAR S V, 3.DILLI GANESH T 4.MATHAN A , 5. JOSE SARANISH D

### IT IS BASED ON THE IOT PROJECT

Our Ultimate Aim is to make your home to smart home in low cost. With using the wifi module ,(esp8266)This project is IOT (internet of things) based project. This website was created by c,c++,html language only this project works in 50 meter range .this modules have 16 pin to connect 16 channel relay modules ,but this project we have to connect only 2 relay modules. In future this projects works all over the world via internet and also you can use offline mode in 10 meter we have one idea this project works via google assistance and alexa this project is programmed by arduino software WORKING

First of all you can give 5v powersupply and 230v powersupply . insert the a type usb A cable in your laptop and then to check the wifi module the blue light blink or not and then turn on your mobile hotspot with internet .and the wifi module blue light is glow continuously. go to the arduino software and click the serial monitor button and then serial monitor tab shows one ip address and then enter the ip adress in your mobile phone browser .the ip address show two on off buttons and then operates this project



### CINEMA TICKET BOOKING APP

Team members : (I AI&DS)

1)E.Jayanth

2)S.Prasanna Kumar

Project name : Cinema ticket booking app

Project description: A program to print cinema tickets and purchase snacks. It solves problems like overcrowding and unwanted conflicts. This program can be developed to replace the cashier in the college cafeteria so as to avoid crowd in the canteen

# Vacuum Cleaner and Earthquake Alarm

Members name: S.kanmani (Ai&DS)

M.janani (AI&DS)

Project name: vacuum cleaner and earthquake alarm

Project discription:

Vacuum cleaner: It is use an electric motor thats spin a fan, sucking in air and any small particles caught up in it and pushing out it the other side into a bag create the negative pressure

Earthquake alarm: It can be provide warning of alarm Ground shaking during an earthquake The object is to rapidly defect the initation of earthquake ,estimate the level of ground shaking to be expected, and issue a warning before significant Ground shaking start.

# Water Turbine

Team Members: (I ECEB)

Sathiyam.S, Priyadarshini.S, Samiya Banu.S, Sudharshana Devi.S

Project Title: Home made genarator (2)

Project Description: Water Turbine Home made genarator, Home made genarator using battery

# Home automation using IoT.

Team Members : ECE B

Tasleem Fathima,

Sofiya,

Rajalakshmi,

Ramya

Project Title : Home automation using IoT.

Project description : To control our home electrical appliances using internet connection to save electricity.



# **AUTOMATIC STREET LIGHT**

Team Members :

1) Shai Subramaniam, 2) Simeon Daniel, 3) Rahul.K

4) Rajesh R, 5) Rajkumar U, 6) Parthiban

**DESCRIPTION**:

 $\checkmark$  It's an automatic Street Light , which is used to light up the streets automatically.

✓ It Has Three Sources for Lighting : i)Battery ii) Solar panel iii) Electricity

 $\checkmark$  Each battery Can Long lasts Upto a Week , We can fix a 4-5 batteries.

 $\checkmark$  It's an Inbuilt type Of Street light

 $\checkmark$  When It Begins sunrise, The lights are switched Off automatically. And It starts lighting When There Is A sunset.

 $\checkmark$ Its a Water and Heat resistance . Electric shock Is chance less.

 $\checkmark$ It works On sensors For lighting ON and OFF.

 $\checkmark$  It can be used in any situation , any climate , Any season .

