Engineers Day 15th September 2018

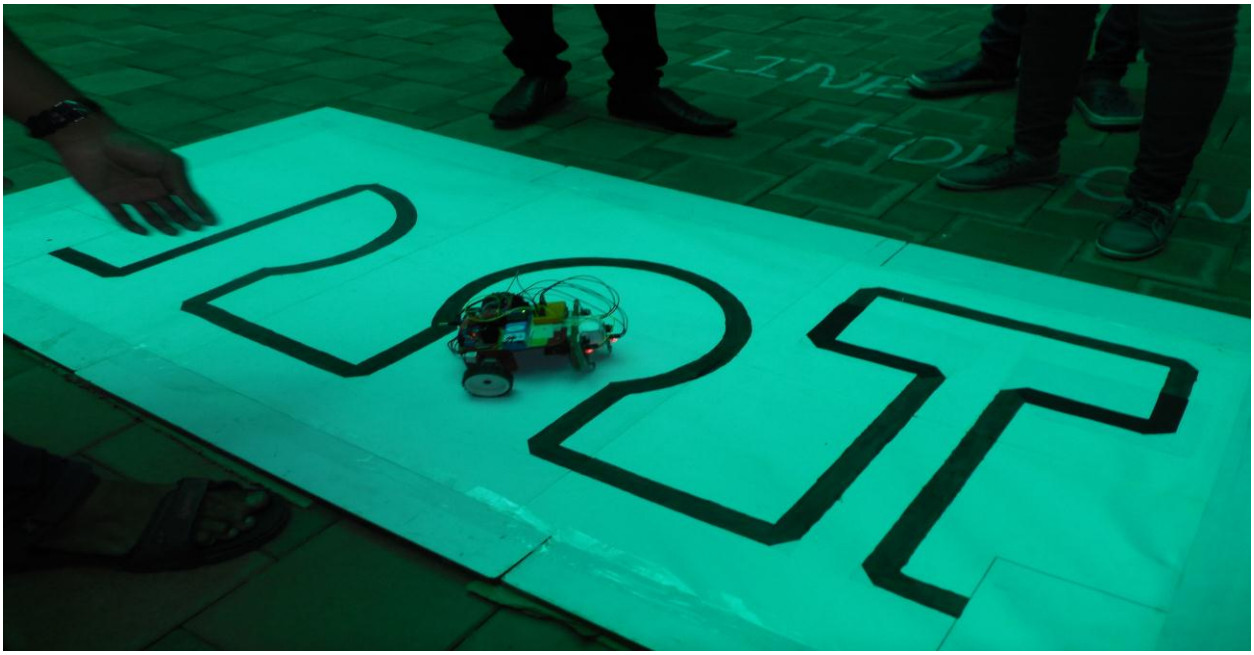
On 15th September 2018 students of B.Tech Electronics & Communication program celebrated Engineers day by following events:

1) Robot race
2) Line following robot
3) Poster presentation competition
4) Non technical quiz competition

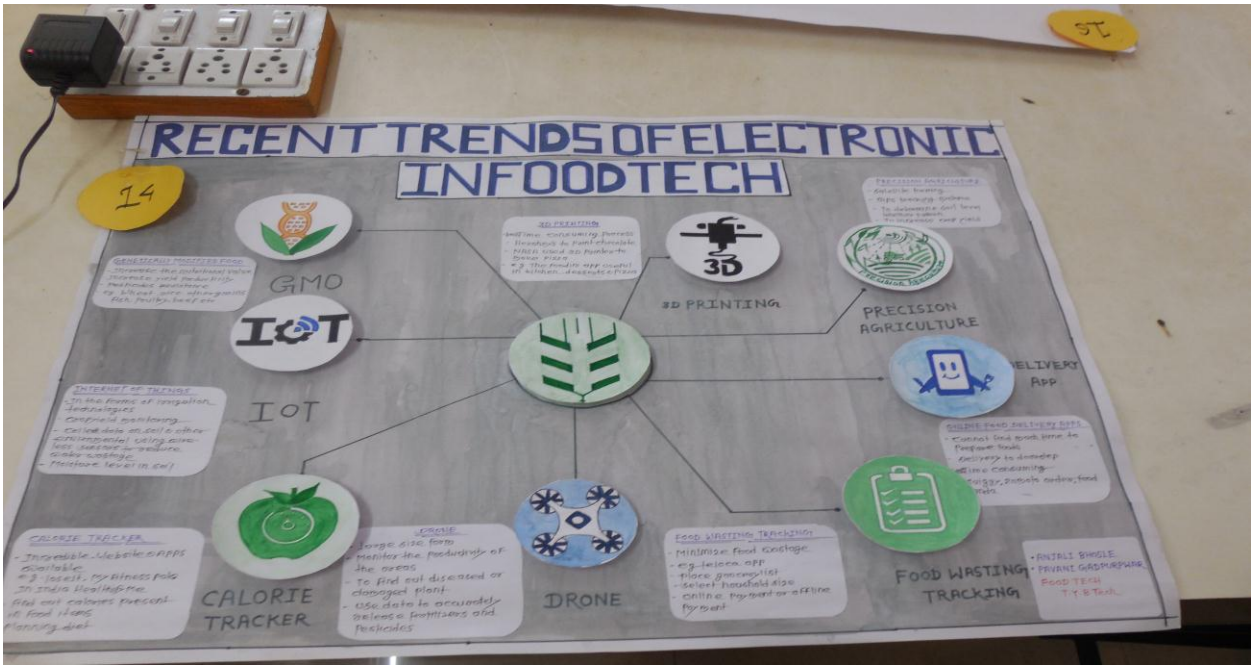
1) Robot Race

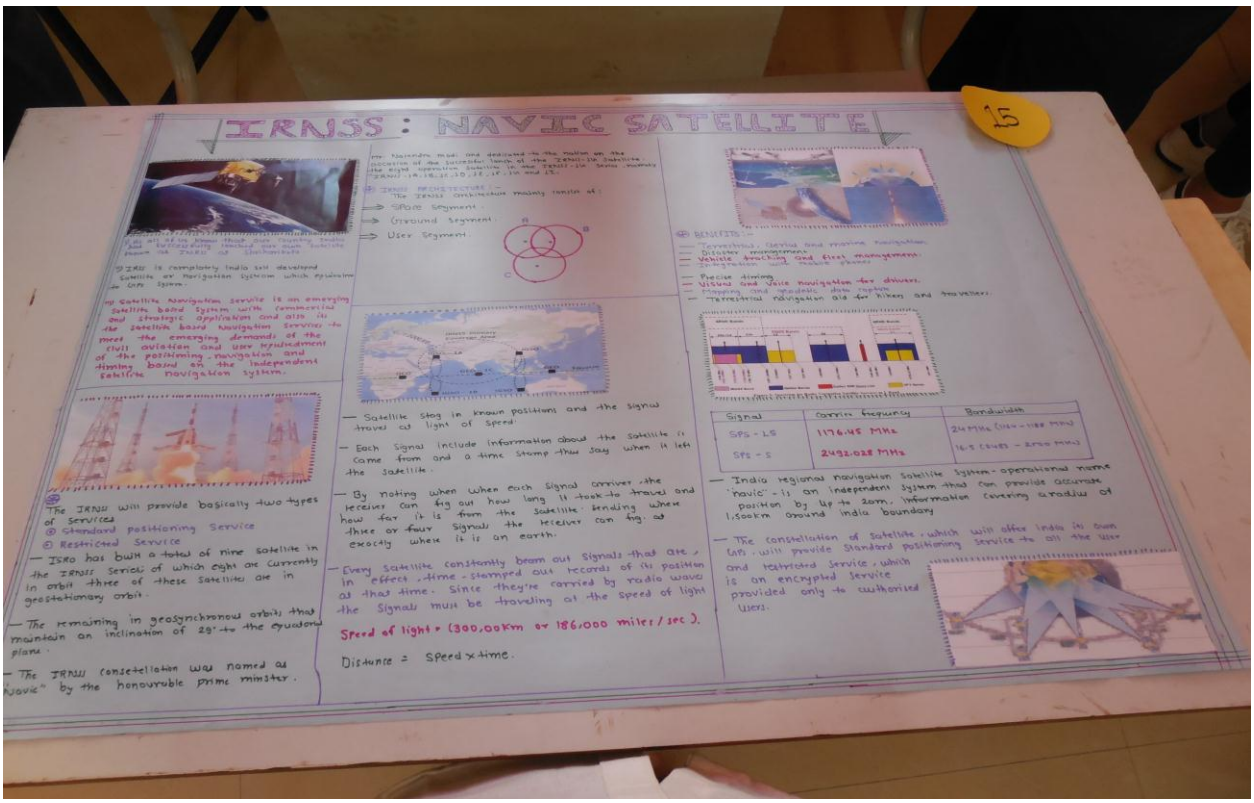
For robot race students designed robot track from scrap and waste material. The track was with hurdles. Students participated in this robot race.

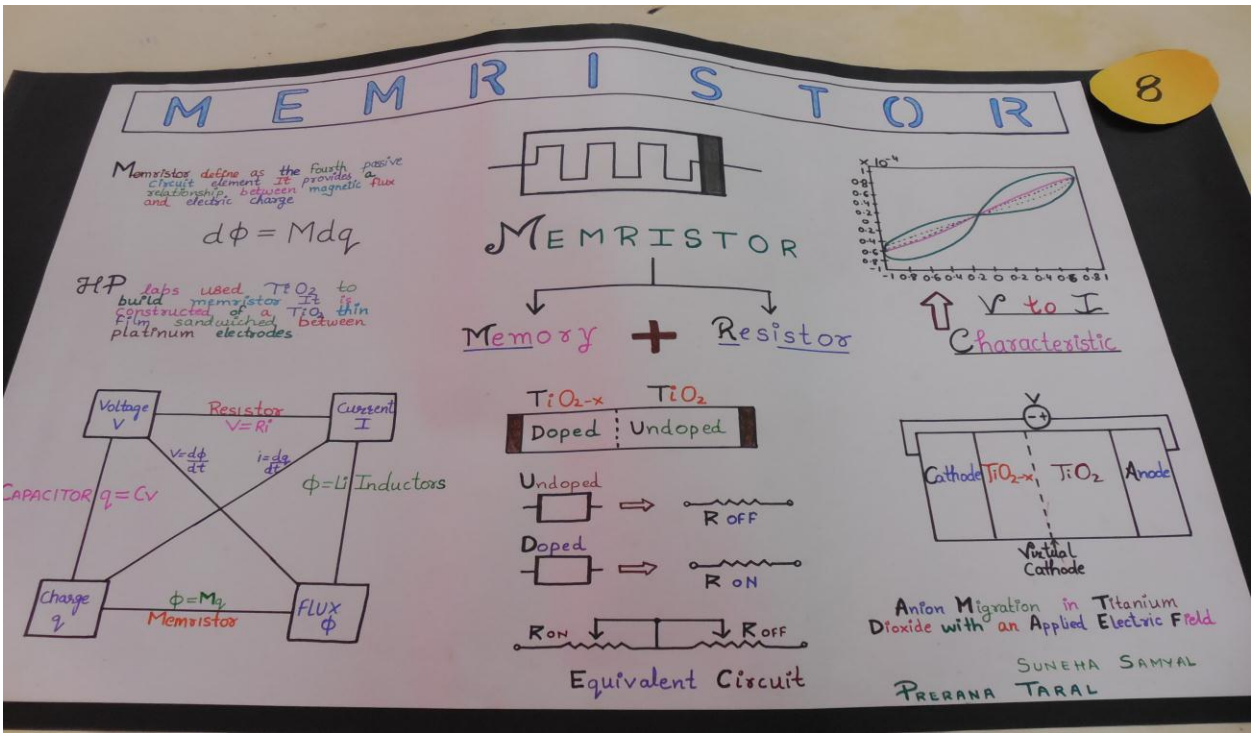
2) Line following robot



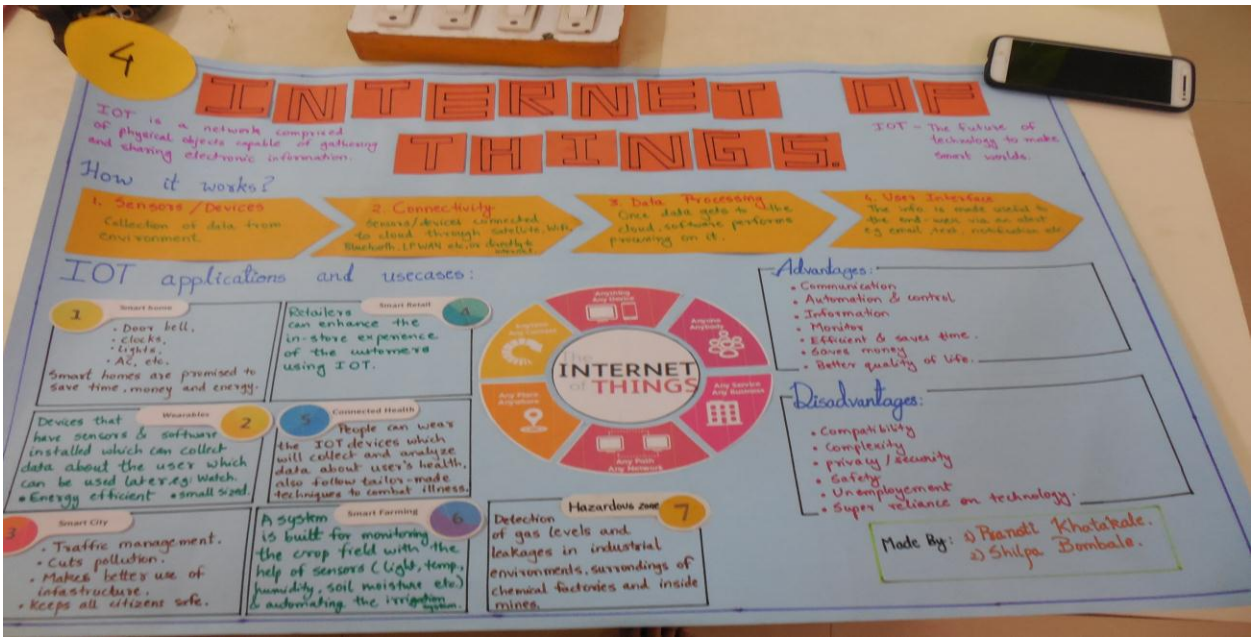
3) Poster presentation competition



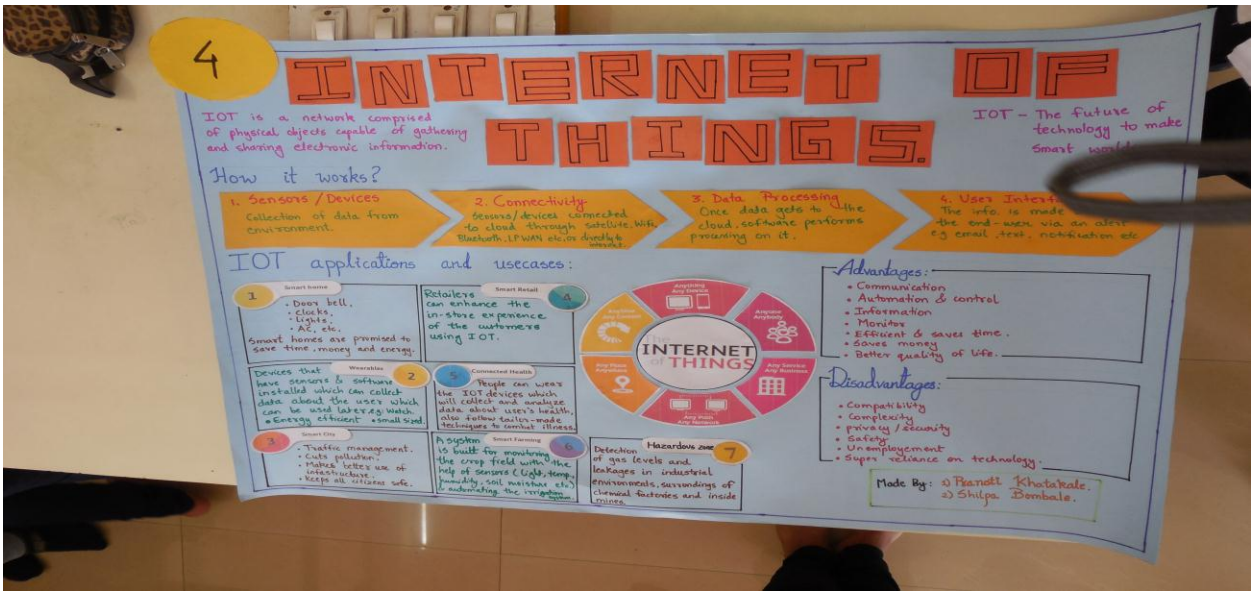



MEMRISTOR
8
Memristor define as the fourth passive circuit element. It provides a relationship between magnetic flux and electric charge
$d\phi = Mdq$
HP labs used TiO_2 to build memristor. It is constructed of a TiO_2 thin film sandwiched between platinum electrodes
MEMRISTOR
Memory + Resistor
V to I Characteristic
Voltage V
Resistor V=Ri
Current I
$v=\frac{d\phi}{dt}$
$i=\frac{dq}{dt}$
CAPACITOR $q=Cv$
$\phi=Li$ Inductors
Charge q
$\phi=Mq$ Memristor
FLUX ϕ
TiO_{2-x} TiO_2
Doped Undoped
Undoped
R OFF
Doped
R ON
R_{ON} R_{OFF}
Equivalent Circuit
Cathode TiO_{2-x} TiO_2 Anode
Virtual Cathode
Anion Migration in Titanium Dioxide with an Applied Electric Field
SUNEHA SAMYAL
PRERANA TARAL


LATEST TRENDS IN ECT
IOT
LI-FI
INTERNET
1. What Is IOT ?
1. What Is Li-Fi ?
Li-Fi VS WiFi
1. What Is Internet ?


4
INTERNET OF THINGS
IOT is a network comprised of physical objects capable of gathering and sharing electronic information.
IOT - The future of technology to make smart worlds.
How it works?
1. Sensors / Devices
Collection of data from environment.
2. Connectivity
Sensors/devices connected to cloud through satellite, Wifi, Bluetooth, LPWAN etc. in different ways.
3. Data Processing
Once data gets to the cloud, software performs processing on it.
4. User Interface
The info. is made useful to the end-user via an alert e.g email, text, notification, etc.
IOT applications and usecases:
1 Smart home
• Door bell.
• Clocks.
• Lights.
• AC, etc.
Smart homes are promised to save time, money and energy.
4 Smart Retail
Retailers can enhance the in-store experience of the customers using IOT.
2 Wearables
Devices that have sensors & software installed which can collect data about the user which can be used later. e.g: Watch.
• Energy efficient • small sized
5 Connected Health
People can wear the IOT devices which will collect and analyze data about user's health. also follow tailor-made techniques to combat illness.
3 Smart City
• Traffic management.
• Cuts pollution.
• Makes better use of infrastructure.
• Keeps all citizens safe.
6 Smart Farming
A system is built for monitoring the crop field with the help of sensors (Light, temp, humidity, soil moisture etc.) & automating the irrigation system.
7 Hazardous zone
Detection of gas levels and leakages in industrial environments, surroundings of chemical factories and inside mines.
INTERNET of THINGS
Advantages:
• Communication
• Automation & control
• Information
• Monitor
• Efficient & saves time.
• Saves money
• Better quality of life.
Disadvantages:
• Complexity
• Complexity
• privacy / security
• Safety
• Unemployement
• Super reliance on technology.
Made By: 1) Preeti Khatakale.
2) Shilpa Bombale.


ELECTRONICS
TRENDS
APPLICATIONS
Used In →
THE INTERNET OF THINGS
Fog Computing
Uses
THE INTERNET OF THINGS (IOT)
Poster By
Shruti Gaikwad
Mugdha Hallargi
3rd Year
ECT



4) Non technical quiz competition