



Innovation Activities (AY: 2020-21)

List of Events organized and the details:

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1	JHUB ELITE 2021 Nominations: Team from ECE Department	June 2021	02
2	JHUB EXCITE-2021 Nominations: Team from ECE Department	June 2021	02
3	Webinar on “How to Manifest Innovation & Entrepreneurship Ecosystem in the Student Community and Protection of IP for Innovations”.	26 th March 2021	03
4	Chattra Viswakarma Awards (CVA) (Selected Innovative projects)	12 th December 2020	06
5	Innovative Projects list AY:2020-21	12 th December 2020	09
	a) Bus Attendance System	”	10
	b) Smart Office	”	12
	c) Portable Traffic Light	”	14
	d) Google Assistant Controlled Home Automation	”	17
	e) KALYAYAHA DHIN	”	20
	f) (A Medium through which disabled people can Communicate)	”	
g) A Classroom/Industry Based Noise Level Monitoring System	”	21	
6	Webinar on “Design Thinking and it implementation at institute level” by Prof. P. Achutha Rao, Design and Innovation Trainer and Consultant; Former Centre Head, National Institute of Design R&D Campus, Bangalore	17 th October 2020	23



JHUB ELITE 2021 Nominations: Team from ECE Department

Name	HT Number	Class	Section
Mosali Jyothi	19R11A0425	II Year	ECE-A
Puppala Hemanth	19R11A0486	II Year	ECE-B
Siddanth Chandra Udutha	19R11A04D9	II Year	ECE-C
P. Abhishek	19R11A04H6	II Year	ECE-D
Vudem Shravani Reddy	19R11A04P9	II Year	ECE-E
Sama Likhitha	19R11A04P0	II Year	ECE-E

JHUB EXCITE-2021 Nominations: Team from ECE Department

Name	HT Number	Class	Section
A. Supreeth	19R11A0499	II Year	ECE-C
A.R.A. Prathyusha	19R11A0497	II Year	ECE-C
V.Anusha	19R11A0496	II Year	ECE-B
S.G.Surupa	19R11A0489	II Year	ECE-B
K. Manohar	19R11A04B9	II Year	ECE-C

**Incubation Center
(Part of J Labs - JHub)**



Incubation Center at GCET, is associated with J Labs, of JHub-JNTUH. It has been conducting several programs viz., workshops, bootcamps, 36 Hr Hackathons as prescribed by the Institution Council of India (IIC) Ministry of Human Resource Development (MHRD), Government of India and has obtained a 3 star rating for the calendar year 2018-19.



Webinar on “How to Manifest Innovation & Entrepreneurship Ecosystem in the Student Community and Protection of IP for Innovations”

Date: **26-03-2021(Friday)** & Time: **2:00 PM to 3:30 PM**

Topic: ***“How to Manifest Innovation & Entrepreneurship Ecosystem in the Student Community and Protection of IP for Innovations”***.

Speaker: **Dr. M. K. Kaushik, CEO-VIBA (Vaagdevi Incubation and Business Accelerator)**

Link to access webinar: **<https://meet.google.com/ava-vjsz-trf>**

- Session was started sharp at 2:00 PM on 26-03-2021.
- Participants from different departments joined the webinar session
- There were 52 participants attended the webinar session.
- Introduction to the webinar topic was given by Dr. R.S. Raju, Dean R&D for 5 minutes duration.
- After introduction Dr. M. K. Kaushik started his session. During his session he focused on the following topics
 - Discussed about the innovations in India and the position of India in global ranking w.r.t. innovations and start-ups
 - Discussed about aspiration of Indian innovations by 2024
 - Defined innovation and entrepreneurship.
 - Had a look on top-5 eco systems in the world.
 - As an academician what we should do? Discussed the role of teacher.
 - Focused on essentials to become entrepreneur.
 - Discussion on the requirement of start-ups.
 - Focused on IPR and its protection.
 - Explained various organizations in India and world, where one can file patents or search existing patents.
 - Patent application, various forms for applying and maintaining patents.
 - Also discussed about registration fees and time line for these processes.
 - Finally he shared his contact details for further discussions.

After the session by Dr. Kaushik, concluding remarks were given by Dr. R. S. Raju, Dean R & D and session was ended at 3:30PM

Recorded session Link:

<https://drive.google.com/file/d/1lvuZktpRu5Ky6ytpVx2FGzmC2QQqJmCZ/view?usp=sharing>



A Webinar on

“How to Manifest Innovation & Entrepreneurship Ecosystem in the Student Community and Protection of IP for Innovations”.



Speaker:

Dr. M. K. Kaushik

CEO -VIBA

Date: 26-03-2021 & Time: 2:00 PM to 3:30 PM

Link: <https://meet.google.com/ava-yjsz-trf>



Department of Electronics & Communication Engineering
Geethanjali College of Engineering and Technology

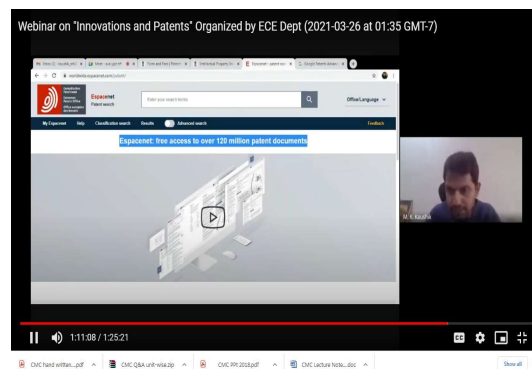
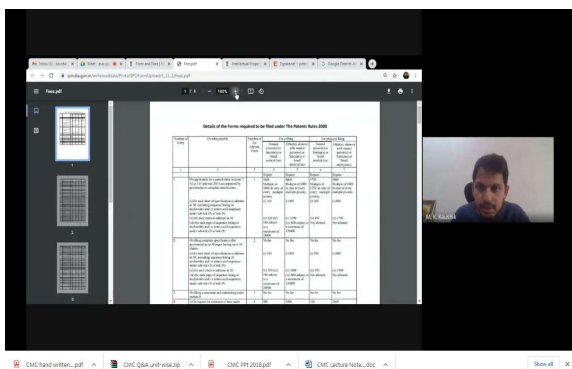
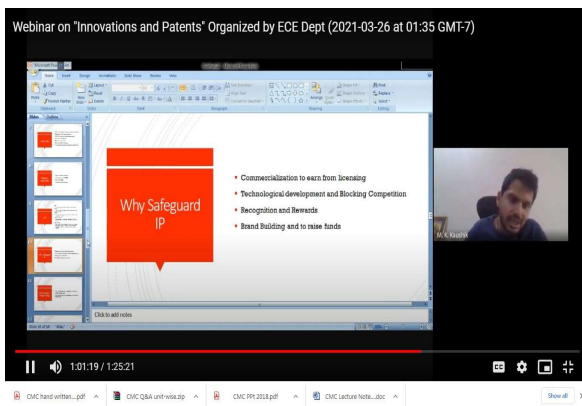
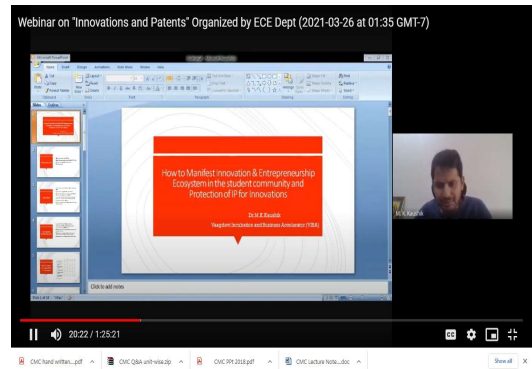
Accredited by NAAC with 'A' Grade & NBA, Approved by AICTE and Affiliated to JNTUH

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Webinar session (26-03-2021) Photos:





CHHATRA VISHWAKARMA AWARDS 2020

The **AICTE Vishwakarma Awards 2020** is being organized by All India Council for Technical Education (AICTE) on India's Economic Recovery Post Covid; Reverse Migration and Rehabilitation Plan to support "Atmanirbhar Bharat". The process followed for the CVA nominations are as follows.

The students were motivated to come up with their ideas under the following themes.

- Reskilling or up skilling for ensuring livelihood.
- Promote micro, small and medium enterprises to achieve the mission of Atmanirbhar Bharat.
- Promote value added agricultural Processes, Products and Handicrafts.
- Mental Health and psychosocial support.
- Gender-Responsive mechanism to combat Domestic violence.
- Barriers in accessing adequate health care services.
- Working conditions; ensuring occupational health and safety issues .
- And any other necessary support.

Chattra Viswakarma Awards (CVA) : Identified Innovative projects.

Below five teams have been identified from II years and III years with the help of respective class teachers.

S.No	Title of the project	Student Names	Student Roll No.	Year	Section	Faculty Guide
1.	Personal Health Information APP(PHI)	Taha Raheel	19R11A04C7	II	C	Ms.S.Jyothirmayee
		P.Shashi Vignesh	19R11A04D1	II	C	
		T.Harsha Sai Tarang	19R11A04E0	II	C	
		Y.Sandhya	19R11A04E4	II	C	
2.	Cough sensing and automatic sanitization	Nanda Kishore	20R15A0412	II	C	Mr.Appalaraju
		Chaitanya	20R15A0413	II	C	
		Nikitha	20R15A0423	II	C	
		Preethi	20R15A0422	II	C	
3.	e-farmer Portal Development	G V Charan Kalyan	18R11A0466	III	B	Dr.S.Vallisree
		D.Satya Sai Pavan Kumar	18R11A0460	III	B	
		G Karthik Manikanta	18R11A0465	III	B	
		K. Vishwesh	18R11A0473	III	B	
4.	Smart Agriculture using IOT	GaddamAkhila	18R11A0463	III	B	Prof.B.L.Prakash
		Pavan Vaswani	18R11A0483	III	B	
		S. Ramya	18R11A0488	III	B	
		S. Sai.Abhishek	18R11A0489	III	B	
5.	Development of Mental Health Support App	D. Anuhya	18R11A04A4	III	C	Ms.B.Sreelatha
		K. Prerana	18R11A04B1	III	C	
		R. Divya	18R11A04C7	III	C	
		Y. Srivatsa	18R11A0496	III	B	



Department of Electronics and Communication Engineering

1. Depending on the project title which the students have chosen, the faculties have shown their interest to act as mentors for the identified project batches.
2. The students were instructed to project their ideas in the “**Idea Pitching**” competition held at Institution level

Date of event: 12-Dec-2020

Venue: IT Seminar Hall

Time: 10: 00 AM to 2: 00 PM



3. Out of the five teams participated from ECE department, the below **two teams** from **ECE department** were shortlisted by the external committee members invited for the evaluation.

External Committee members: 1. BadarinathChitti, Consulting Director-StartUp
2. Dr.Rohin Y, Founder-CEO of LightSpeedAI Labs



S.No	Title of the project	Student Names	Student Roll No.	Year	Section	Faculty Guide
1.	Cough sensing and automatic sanitization	Nanda Kishore	20R15A0412	II	C	Mr.Appalaraju
		Chaitanya	20R15A0413	II	C	
		Nikitha	20R15A0423	II	C	
		Preethi	20R15A0422	II	C	
2.	Development of Mental Health Support App	D. Anuhya	18R11A04A4	III	C	Ms.B.Sreelatha
		K. Prerana	18R11A04B1	III	C	
		R. Divya	18R11A04C7	III	C	
		Y. Srivatsa	18R11A0496	III	B	

- The shortlisted teams had a discussion with MBA department faculties for updating the necessary details in the Business model section of the 'Idea Submission form' and successfully uploaded their CVA nominations in the portal with the help of mentor faculties.
- The training and components needed for the shortlisted teams are supported and funded by the college management.
- The two shortlisted projects listed down in point no. 5 are planned to be completed by 20th Feb 2021.

CVA Coordinator: Dr.S.Vallisree

Apart from that, it has prestigiously hosted AICTE's Chaatra Vishwakarma Awards south central regional convention in Dec 2019, for which, **AICTE's regional center has appreciated the contributions of the center at the college in this regard.**





Innovative Projects (2020-21) and details:

S.No	Title of the project	Student Names	Roll No.	Guide
a	Bus Attendance System	Pasunoori Umesh	18R11A0482	B.SreeLatha
		Pavan Vaswani	18R11A0483	
		YaswanthKharatmol	18R11A0495	
b	Smart Office	L.Nithin	18R11A0475	M.Laxmi
		S.Ramya	18R11A0488	
		S.Sai Abhishek	18R11A0489	
		S.Ruchiswa	18R11A0490	
c	Portable Traffic Light	K.Vishwesh	18R11A0473	G.Sree Laxmi
		G.V.Charan Kalyan	18R11A0466	
		G.KarthikManikanta	18R11A0465	
		G.Akhila	18R11A0463	
d	Google Assistant Controlled Home Automation	Panuganti Sreevani	17R11A04N0	Mr. Ch.Sandeep
		Peddi Sindhuja	17R11A04N1	
		N.DayaRakshak	17R11A04M9	
e	KALYAYAHA DHIN (A Medium through which disabled people can Communicate)	KurusaliSree Nandhini	17R11A0476	M.Sowjanya
		Noorbasha Mohmed Rafiq	17R11A0485	
		Marri Nitish Kumar	17R11A0481	
f	A Classroom/Industry Based Noise Level Monitoring System	B.Vinay	17R11A04F2	Appala Raju. Uppala
		K.V.G Sameer	17R11A04G3	
		Prathyusha	17R11A04H3	



a). Bus attendance system

Summary

A design and construction project for our college, which is a RFID based Bus attendance system that includes a RFID (UHF) antenna fixed at ceiling of college gate Arch and RFID tags placed on wind shield of buses . Costs will be around Rs.40,000 to 45,000 and the project will take approximately two months to complete.

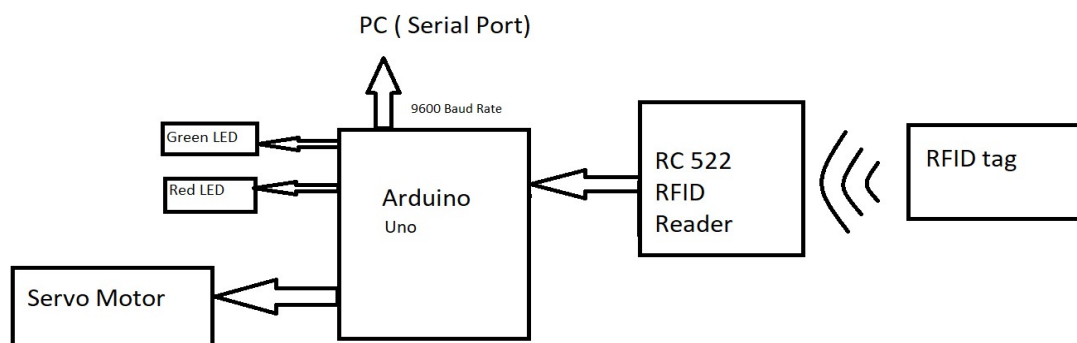
Project Objective

Main objective of RFID based bus Attendance System project is to take the attendance of buses arriving and departing from our college premises. Microcontroller does the task of storing the attendance of the respective bus in the Microcontroller memory. The existing attendance system is manual and it is taken on paper and it consumes lot of time

Features

- Building of attendance system which requires **zero** man power.
- Application of Electronic concepts in Real life.
- Attendance is updated automatically and is projected live.
- Day to day maintenance of the Attendance Data.
- Study of RFID techniques for better service.

Block diagram



Progress

We have successfully implemented the minor level prototype using Arduino uno and RC 522 RFID reader and updated the values in Excel sheet. The problem with the minor level prototype is its short range detection i.e,3 – 5 cm , So we thought of an alternative to this and



Department of Electronics and Communication Engineering

found RFID UHF antennas which come with builtin RFID readers which detect for a long range i.e,upto 10 metres . We visited few Antenna manufacturing companies that build RFID antennas and found a company that is ready to provide the components as per our requirements .

Materials and Budget – Please refer the following sheet.

Budget (till date)

Arduino Uno and Cable	Rs.400 + Rs.50
RC 522	Rs.170
Breadboard	Rs.80
Connecting wires	Rs.50
Jumper Wires (x9)	Rs.90
RFID cards (x4)	Rs.100
Total Cost:	Rs.940

Guide

B.Sreelatha

Students

Pavan Vaswani 18R11A0483

Umesh Chandra P 18R11A0482

Yashwant K 18R11A0495

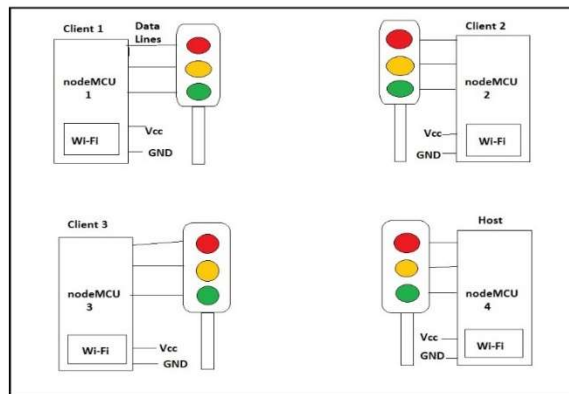


b). Portable Traffic Signal

Aim /Scope of the project:

To develop and explore the use of portable traffic signal technology as a means for improving the efficiency of two-lane rural maintenance operations. This project is used to develop portable traffic signal which would help the vehicles on national highways and in the city roads where there is a heavy traffic to be controlled.

Block Diagram of the Project:



Hardware Requirement:

1. NodeMCU (ESP8266) WiFi modules
2. Led panels
3. Connecting Cables
4. 12V Battery

Software/ Tools Used:

1. Arduino IDE Software.

Status of the project :

We are able to connect all the 4 nodeMCUs and data is transmitted and received using tcp protocol, the results are as expected.

We completed up to connecting them wirelessly and switching all the traffic signals. We have developed the code such that it can work in both the ways either as a group of 4 connected each other or as an individual one.

We developed a simple prototype (fig 1 & fig 2) where we made 4 small poles with attached LEDs namely red, orange and green placed on a cardboard such that it looks like a portable traffic signal in the junction.



Fig 1 Portable traffic lights as a junction



Fig 2 Portable traffic light as single pole

Guide: G.Sreelakshmi

Students:

1. 18R11A0473 – K Vishwesh
2. 18R11A0466 – G V Charan Kalyan
3. 18R11A0465 – G Karthik Manikanta
4. 18R11A0463 – G Akhila



c). SMART OFFICE

STEP 1: Installation of Arduino IDE software and setup of IDE is done in our laptop's.

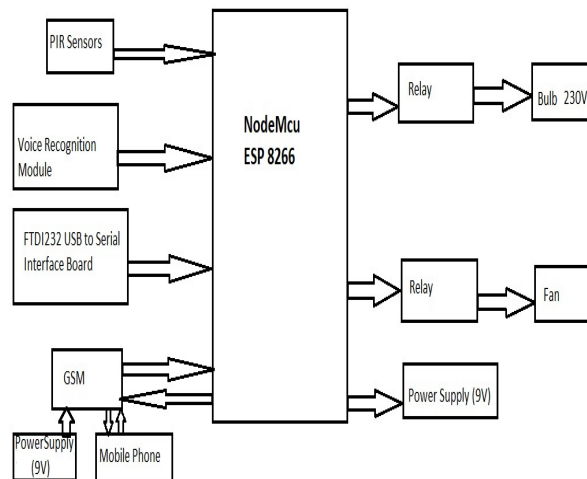
For ESP8266 Nodemcu we have installed the libraries to select the nodemcu from the Board.

STEP 2: Using Nodemcu first controlling of LED is done through a webpage. After the code is dumped and compilation is done we will get an IP address with that we have controlled LED to turn ON/OFF in the webpage created.(Image 1.1 & 1.2)

STEP 3: 230 V Bulb connected to Nodemcu.

To the nodemcu we have given PIR sensor, and to the bulb using relay we have connected to external switch (i.e 230v as input voltage).So when PIR detects any person then automatically the BULB will turn ON within the PIR range and turns's OFF automatically if the person exceeds the PIR range.(Image 2.1 & 2.2)

BLOCK DIAGRAM :



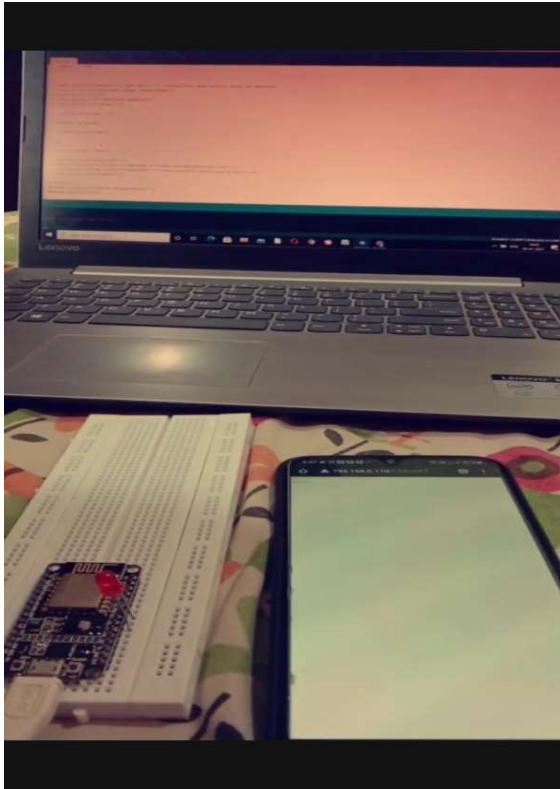


Image 1.1 LED is turn OFF

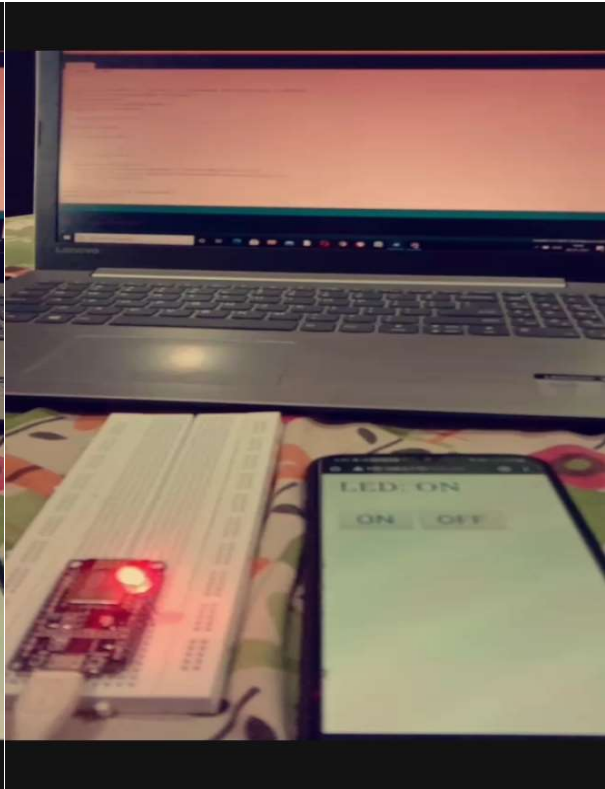


Image 1.2 LED is turn ON

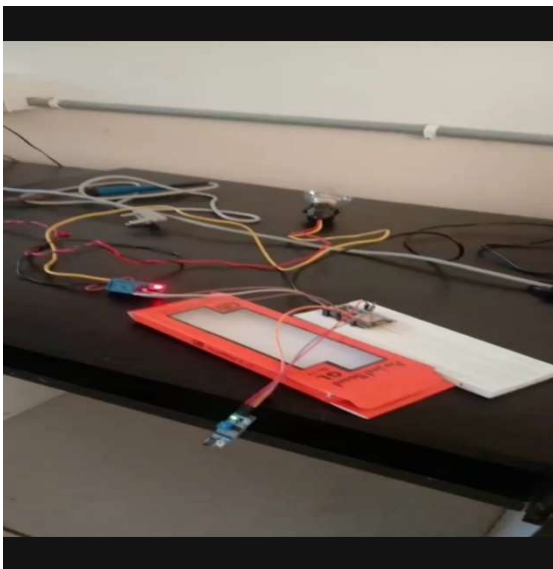


Image 2.1 Person is not detected Bulb is OFF

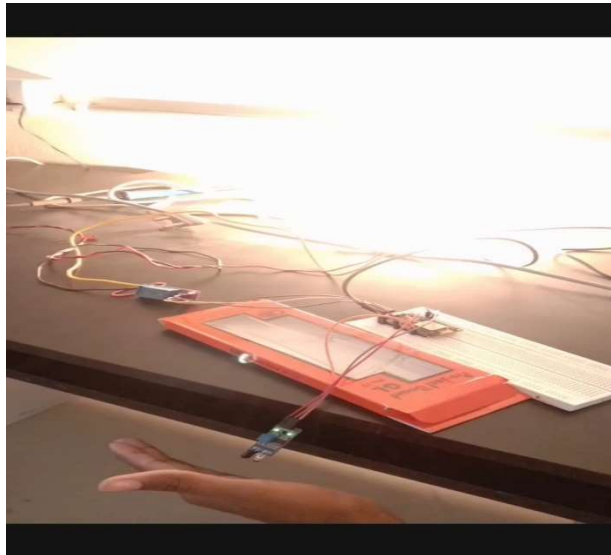
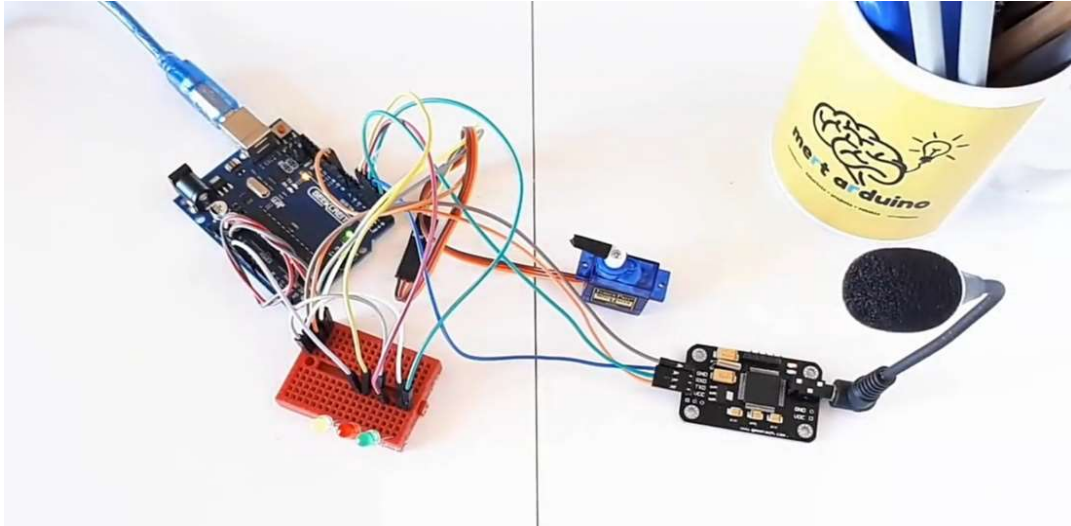


Image 2.2 Person detected Bulb is ON

Here IR sensor is used to turn ON/OFF the Bulb



Expected Image of Voice Module :



In this instead of Arduino we are using Nodemcu as the microcontroller .

The appliances are bulb and fan which are operated by giving a Voice command .

Expected Image of GSM using Mobile phone :



Using GSM to turn ON/OFF the bulb or to turn ON/OFF the fan is done via mobile phone by sending SMS to GSM .



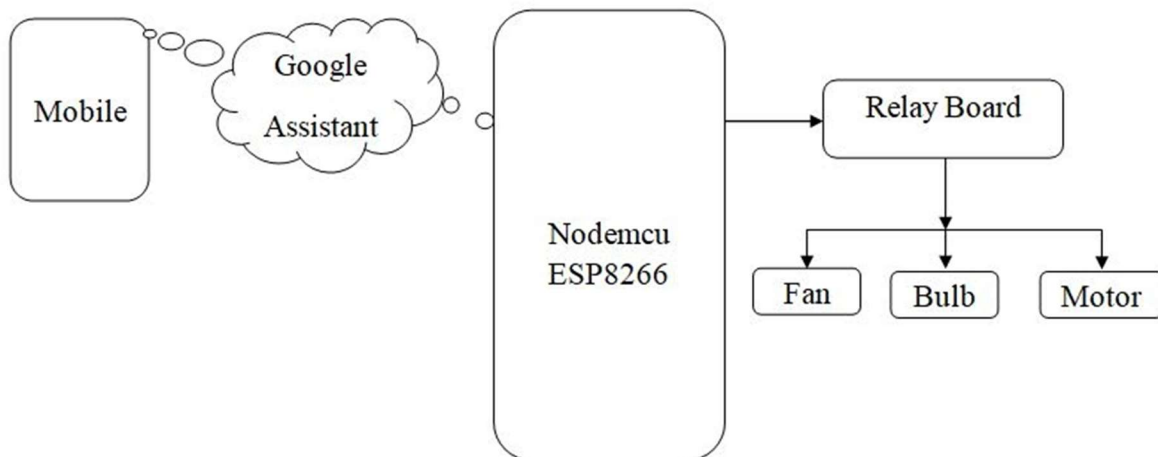
d). Google Assistant Controlled Home Automation

The idea behind Google Assistant –controlled home automation is to control home devices with voice. This can be operated from anywhere, unlike Bluetooth (which can be operated within limited distance). In this project, the Google Assistant requires voice commands. Adafruit account which is a cloud based free IOT web server used to create virtual switches, is linking to IFTTT website abbreviated as “If This Then That”, which is used to create if else conditional statements. The voice commands for Google Assistant have been added through IFTTT website. In this home automation, as the user gives commands to the Google Assistant, Home appliances like Bulb, Fan and motor etc., can be controlled accordingly. The commands given through the Google Assistant are decoded and then sent to the microcontroller, the microcontroller in turn controls the relays connected to it. The device connected to the respective relay can be turned ON or OFF as per the users request to the Google Assistant. The microcontroller used is Node MCU(ESP8266) and the communication between the microcontroller and the application is established via Wi-Fi (Internet).

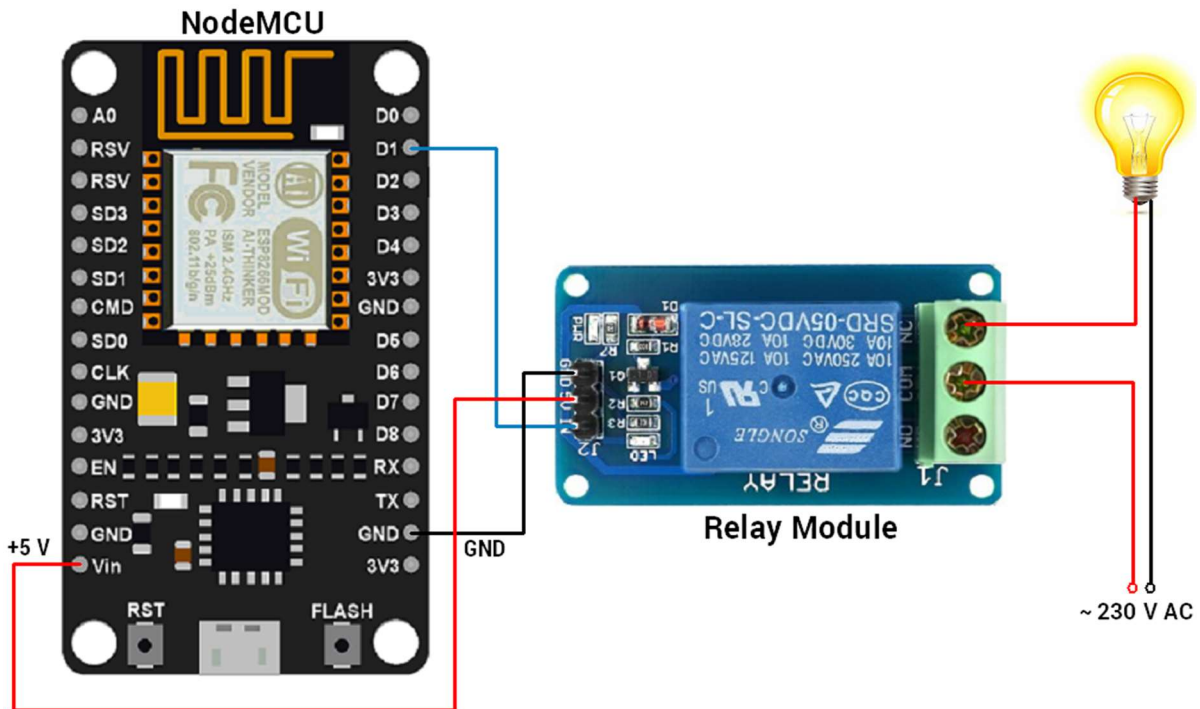
KEYWORDS: Node MCU, Adafruit IO, IFTTT, Google Assistant.

BLOCK DIAGRAM

The block diagram of the Google assistant-controlled Home Automation is shown in the Fig

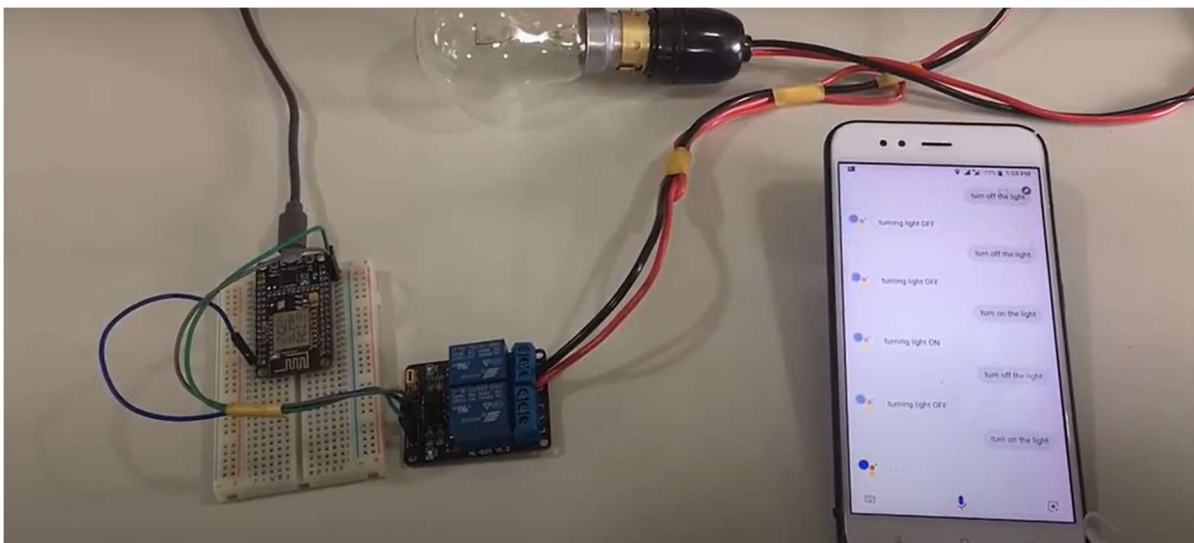


Block diagram of Google assistant controlled Home automation.



Interfacing Diagram of Node MCU (ESP8266) with Relay module.

The connections are being made as shown in the figure below. Now, commands are given through google assistant to switch on the light.



Giving commands to Google Assistant to switch on the light

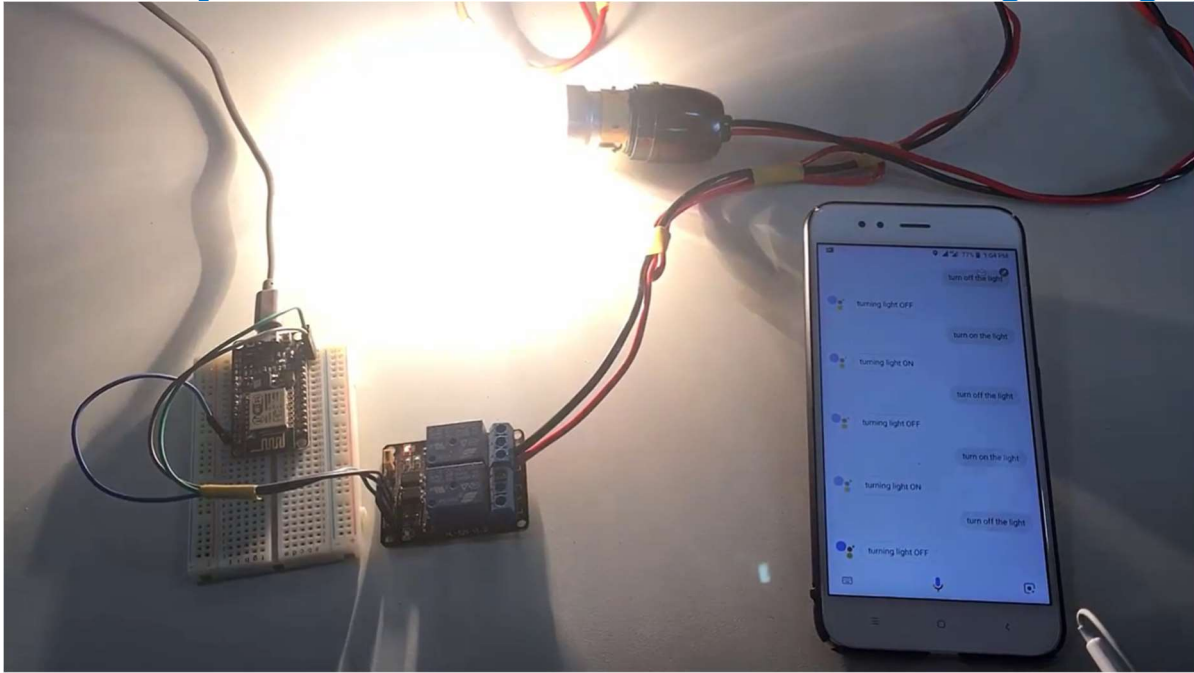


Fig 5.2 Light turning ON



Fig 5.3 Light turning OFF

Guide :Mr. Ch. Sandeep

Students: PanugantiSreevani – 17R11A04N0,

PeddiSindhuja – 17R11A04N1,

N.DayaRakshak – 17R11A04M9

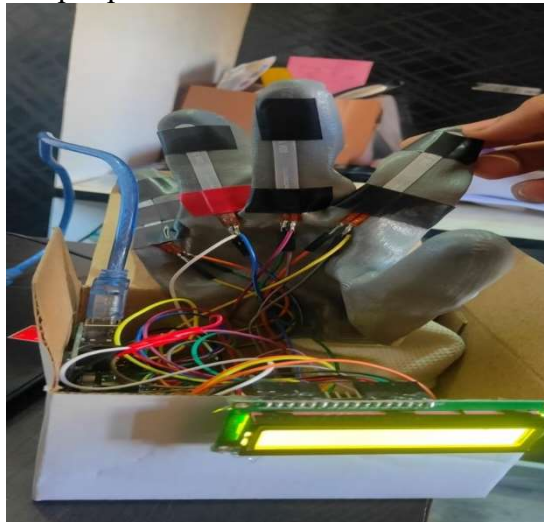


e). KALYAYAHA DHIN

(A Medium through which disabled people can Communicate)

Communication is the only medium by which we can share our thoughts or convey the message but for a person with disability (deaf and dumb) faces difficulty in communication with normal person. Because of this, a person who lacks in hearing and speaking ability is not able to stand in race with normal person. Communication for a person who cannot hear is visual, not auditory. Generally dumb people use sign language for communication but they find difficulty in communicating with others who don't understand sign language. So there is a barrier in communication between these two communities. This work aims to lower this barrier in communication.

The main objective of the implemented project is to develop a reliable, easy to use, light weight smart hand gloves system which can minimize the obstacles for disabled people where they can stand with the race. By this way a dumb person can communicate with the normal people. It is very efficient and cheaper process.



Guide: M.Sowjanya

Students:

KurusaliSree Nandhini-17R11A0476

Noorbasha Mohmed Rafiq-17R11A0485

Marri Nitish Kumar-17R11A0481



f). A Classroom/Industry Based Noise Level Monitoring System

Noise is the most impertinent of all forms of interruption. It is a disruption of thought which ultimately, ushers to irritation. Sound levels exceeding 120db is regarded as noise. A surfeit of noise levels could cause worrying health risks, for instance, tinnitus, ischemic heart diseases etc. By pondering all these facts, we aim to throw a light on the problem we're encountering. Therefore, there is a colossal demand for a noise level monitor system. This fundamental paradigm or prototype is limited to a classroom but can be also broadened to factories and industries. The modus operandi we follow is pretty simple. Sound input is applied to condenser microphone connected to an audio amplifier. The audio amplifier boosts the signal, subsequently given to the arduino. Making use of the method of regression, arduino calculates sound values in db. A buzzer or LED is connected at the output. Whenever surrounding noise escalates, the buzzer rings. Successively, a message is also sent using a wifi module. Additionally, a sound meter is also a requisite. So, by using all these effective tools, noise levels monitor system is practicable. Also, this system is easily installable.

The basic block diagram is given below, Initially we have a microphone which senses the analog sound values and will send it to Audio amplifier, where it amplifies the values and convert them to digital values, this values are sent to arduino where through program it decides the action to be done accordingly it displays the output

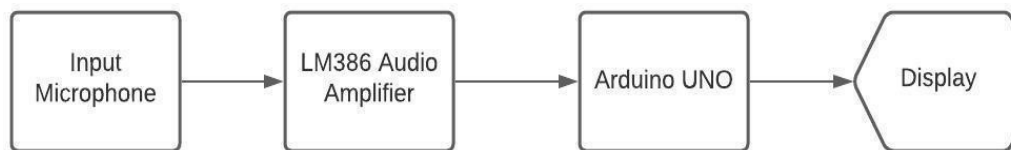
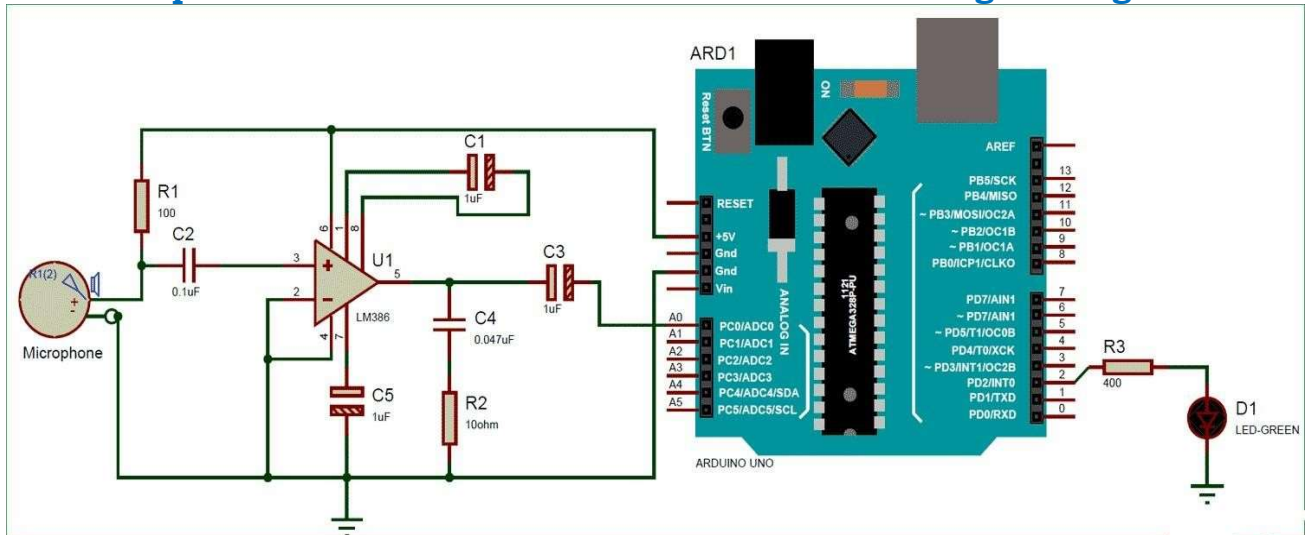


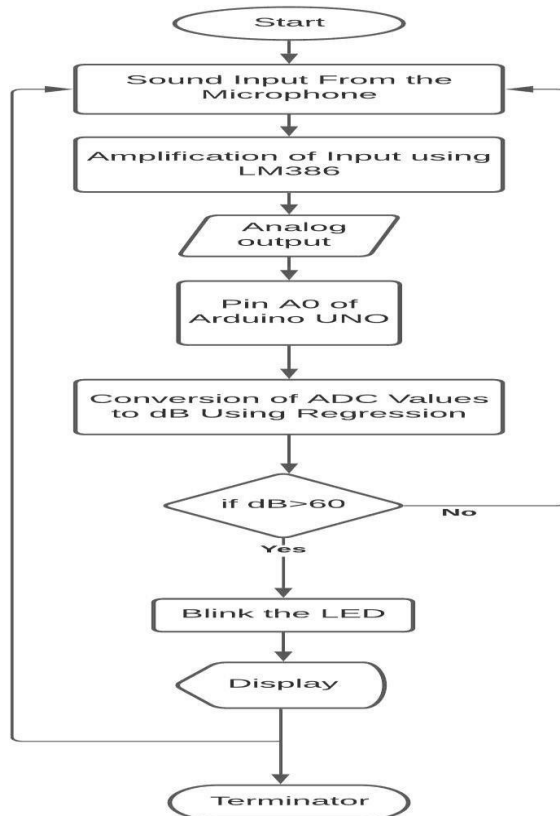
Fig. Block Diagram

Circuit Diagram

The Circuit Diagram is as given below accordingly connections are made, Circuit for this **Arduino Noise Level Meter** is a very simple in which we have used the LM386 Audio amplifier circuit to amplify the signals from a condenser microphone and supply it to the Analog port of Arduino. The gain of this particular op-amp can be set from 20 to 200 using a resistor or capacitor across pin 1 and 8. If they are left free the gain will be set as 20 by default. For our project to get maximum possible gain by this circuit, so we use a capacitor of value 10uF between the pins 1 and 8, note that this pin is polarity sensitive and the negative pin of capacitor should be connected to pin 8. The complete amplifier circuit is powered by the 5V pin from the Arduino. The Capacitor C2 is used to filter the DC noise from Microphone. Basically when the microphone senses sound the sound waves will be converted to AC signals. This AC signal might have some DC noise coupled with it which will be filtered by this capacitor. Similarly, even after amplification a capacitor C3 is used to filter any DC noise that might have been added during amplification



Flow Chart



Students:

B.Vinay -17R11A04F2

K.V.G Sameer - 17R11A04G3

Prathyusha-17R11A04H3

Guide

Appala Raju. Uppala



Webinar on “Design Thinking and its implementation at institute level”

Title of the Webinar:

Design Thinking and its implementation at Institute level

Date:

17th October, 2020 (Saturday)

Resource Person:

Prof. P. Achutha Rao, Design and Innovation Trainer and Consultant; Former Centre Head, National Institute of Design R& D Campus, Bangalore

Time:

10AM to 12 Noon (online google meet session)

Google Meet Link used:

<https://meet.google.com/kgj-kjiv-xna>

Number of Participants:

94

Coordinator

Prof. O.V.P.R. Sivakumar

List of the Participants

S.No.	Name Of The Faculty Member	S.No.	Name Of The Faculty Member
1	M Vijay Bhasker Reddy Gcet	48	P. Sandeep Kumar Gcet
2	A. Sree Lakshmi Gcet	49	P.Archana Gcet
3	A.Chandrakala Gcet	50	Piratla Srihari Gcet
4	A.Uma Devi Gcet	51	Polapragada Vijai Bhaskar Gcet
5	Achutha Rao	52	Principal Gcet
6	Anil Kumar Puppala Gcet	53	Purumani Supriya Gcet
7	B Subbarao Gcet	54	Rajasekhar Vangala Gcet
8	B. Hari Kumar Gcet	55	S Ramanjaneyulu Gcet
9	Bhasker.Bommera Gcet	56	S. Hari Kiran Gcet
10	Bhukya Ramu Gcet	57	S.Jyothirmaye Gcet
11	Bojja Kowshik Reddy Gcet	58	S.Vallisree Gcet
12	Devulapalli Varun Kumar Gcet	59	Saladi Saritha Gcet
13	Dr R S Raju Gcet	60	Salagrama Suryanarayana Gcet
14	Dr. Devaiah Malkapuram Gcet	61	Santhosh Kumar Medishetti Gcet
15	Dr. G. Soma Sekhar Gcet	62	Shanker Aleti Gcet
16	Dr. K. Srinivas Gcet	63	Srinivas Mulkalapalli Gcet
17	Dr. P. Sudhakar Gcet	64	Subhash Kamal Gcet



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18	Dr. Puja S Prasad Gcet	65	Suramanyam A Gcet
19	Dr. R.Prasanna Kumar Gcet	66	Uddala Srekanth Gcet
20	Dr.G.Neeraja Rani Gcet	67	V.Navodaya Gcet
21	Dr.S.Spandana Gcet	68	Yalla Swathi Tejah Gcet
22	Erukala Mahender Gcet	69	Yechuri Sivaramakrishna Gcet
23	Faculty Geethanjali	70	Appala Raju Uppala Gcet
24	G Sampath Kumar Gcet	71	Dr Ch Ramesh Babu Gcet
25	G.Latha Suhasini Gcet	72	Dr. Aruna Bharathi M Gcet
26	Guggilla Raju Gcet	73	Dr. S T Raj Mohan Gcet
27	Harinikrishna Gcet	74	Dr.Shankar Jakkula Gcet
28	Harsha Praneeth Gcet	75	Faculty Gcet
29	J Uma Mahesh Gcet	76	J. Mrudula Gcet
30	Jadi Sumalatha Gcet	77	K Gnana Mayuri Gcet
31	K Naresh Babu Gcet	78	Kasturi Divya Gcet
32	K Somasekhara Rao Gcet	79	Panguluri Padmavathi Gcet
33	K.Priyanka Gcet	80	S.Radha Gcet
34	Kolusu Venkatesh Gcet	81	Srigiri.Krishnapriya Gcet
35	Kummarakunta Victor Gcet	82	U Sadhana Gcet
36	Kunchala Raju Gcet	83	Sk.Nuslin Bibi Gcet
37	M Krishna Gcet	84	S. Tirupati Rao Gcet
38	M.Ravi Kumar Gcet	85	P. Mercy Kavitha Gcet
39	Maddireddy Sowjanya Gcet	86	S.L.Anusha Gcet
40	Madhusudan Rao Veldanda Gcet	87	Aadhari Santhosh Gcet
41	Mamatha Bandaru Gcet	88	B.Anitha Gcet
42	Mr. Peramlaxmireddy Gcet	89	B.Sreelatha Gcet
43	N Rajendar Gcet	90	B.Suneetha Gcet
44	N S Raghavendra Gcet	91	D Divya Vani Gcet
45	N Suresh Gcet	92	Dr. Sk. Mahammad Ali Gcet
46	Nagalakshmi Yarlagadda Gcet	93	M Raja Krishna Kumar Gcet
47	O.V.P.R. Siva Kumar Gcet	94	Umarani Marri Gcet

Summary:

1. The coordinator Prof.Sivakumar welcomed the guest speaker Prof.P. Achutha Rao and introduced him to the audience. In total 94 faculty members attended the session, which was recorded by server team.
2. The speaker covered the following aspects of Design Thinking (DT):
 - a. Significance of DT and its characteristics (empathy, experimentation, creativity and action oriented)
 - b. DT is not problem focused and solution focused
 - c. Distinction between problem based vs solution based approaches
 - d. Various categories of Innovation: example of Tata Nano project, which did not create value addition
 - e. Human centered design as part of innovation: ex., “terrifying” to terrific CT scan design for children
 - f. Stanford’s model of DT: empathize, Define, Ideate, Prototype, Test



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- g. Examples of scope for future innovation: can we help world's poorest to see well?
 - i. A method to make inexpensive spectacles which can be made by individuals was proposed by a scientist.
 - ii. Ear examination by a probe with an inbuilt image capturing mechanism which helps the doctor immensely to diagnose the patient.
 - iii. Methods to reduce pre-mature birth and child mortality
 - iv. Inexpensive baby incubation for third world countries
 - v. Madurai based Aravind eye hospital offers 80% free medicare
- h. DT can't be evaluated only by a 3-hour written examination system. There must be a project/assignment based evaluation system (60%) and 40% written exam.
 - i. DT as part of curriculum is planned by Govt. of India at school level.
 - j. Design is planned as a subject in all branches of engineering
 - k. Rubrics and methods of assessment for DT will involve more effort from the faculty. This is unavoidable.
3. Prof. Hari Kumar, Dean SE&CE thanked the guest speaker and appreciated the interactive session
4. Prof.Dr.S. Udaya kumar, Principal, GCET thanked the speaker for sparing his valuable time, proposed that we will visit him in person in Bangalore and also welcomed him to visit GCET after the pandemic.
5. There were several interesting questions raised by the audience.
6. Prof.Sivakumar proposed vote of thanks and concluded the session.

Prof. O.V.P.R. Sivakumar, Coordinator