

SPECTRUM
TECHNICAL MAGAZINE

2K19-20 March Volume-10



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#### **MESSAGES**



Chairman's message

It gives me great happiness to note that the department of Electronics and Communication Engineering, NEC is bringing out the volume-10 of the department technical magazine, "SPECTRUM". From the first edition, I understand that

this magazine is intended to bring out the hidden literary talents in the students and also to inculcate leadership skills among them. The newsletter has served as a platform for the students to share their knowledge and ideas. I expect the contributions to this magazine to be of high standard and quality. I wish all the success for this venture.



Vice Chairman's message

I feel extremely delighted to observe that the department of ECE is coming out with a magazine this year also with the dedicated and committed efforts of the faculty and the students of the Editorial Board. The activity depicts the commitment and involvement of students and their thirst for knowledge.

I congratulate the efforts of the members of the Editorial Board in bringing out the volume-10 of the magazine. It is because of their selfless and untiring efforts that we see the magazine enriched with variety of articles.



Principal's message

The magazine of the department is the reflection of the creativity of the students, involved in multifarious activities. It speaks about their imaginative creativity through the medium of a language given in literary and artistic shape.

I feel gratified to see that the department is doing its best in carrying out the mission of grooming the students as such professionals who are not only competent enough to combat the challenges in their life but also become good human beings with moral excellence and social sensitivity



HOD's message

I feel privileged in presenting the volume-10 of our department association magazine. I would like to place my sincere and heartfelt thanks to all those who have contributed to make this effort a success. My special thanks to the Management, for their guidance which enabled us to bring out this volume.

The magazine has a variety of articles endowed with different subjects contributed by the students of our department and their participation in various activities round the year.

I extend my gratitude to the entire team of the Editorial Board for their constant exertion, revision and support in bringing out the magazine in the present form.

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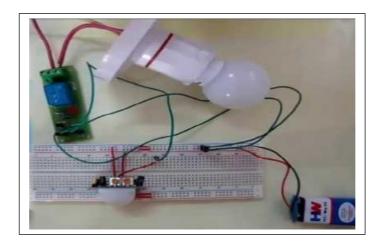
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#### AUTOMATIC ROOM LIGHTS USING ARDUINO

It is a very useful project as you need not worry about turning on and off the switches every time you want to turn on the lights. The main components of the Automatic Room Lights project are Arduino, PIR Sensor and the Relay Module Limiting power. Making a controller which can sense if any person enters the room and lights up automatically. This is an ARDUINO based project that uses PIR sensor which detects the motion near the sensor and indicate the motion by glowing the LED bulb.

PIR Sensor's Data OUT Pin is connected to Arduino's Digital I/O Pin 8. An LED is connected to pin 13 of Arduino to indicate whether the light is turned ON or OFF. The IN1 pin of the Relay Module is connected to Pin 9 of Arduino. A bulb is connected to mains supply through relay. One terminal of the bulb is connected to one wire of the mains supply. The other terminal of the bulb is connected to the NO (Normally Open) contact of the Relay Module.

COM (Common) contact of the Relay is connected to the other wire of the mains supply. Be careful when connecting this part of the project.



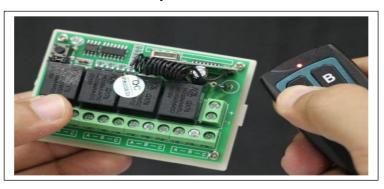
A. Gopi Krishna, III Year ECE

# Remote Controlled Door Lock using Arduino & Electronic Lock

Remote Controlled Door Lock- in this article, you will learn how to make a Remote-Controlled Door Lock using Arduino Uno, Keyes IR Sensor, Electronic Lock "Solenoid E Lock", 12v SPDT type Relay, and an IR remote. This is going to be a very detailed tutorial explaining everything, including how to interface the Keyes infrared Sensor with the Arduino Uno, how to find the IR remote key codes of any IR remote, and how to use a relay to control an Electronic Lock or E Lock.

The Remote-Controlled Door Lock project is an ideal project for beginners. To keep things simple, I have used only two buttons to control the Electronic Lock. One button is used to open the door and the other button is used to close the door. This project can be easily modified, the same project can also be used to turn ON and turn OFF a 110/220Vac light Bulb, and the circuit remains the same. All you need is to disconnect the Electronic Lock and connect a Bulb with the Relay Module.

The Keyes IR Sensor connection with the Arduino Uno remains the same. The electronic door lock one wire is connected with the +12 volts and the other wire of the electronic lock is connected with the normally open contact of the 12 V SPDT relay. While the common leg of the relay is connected with the Ground. So, by turning ON and turn OFF this relay the E Lock can be controlled. The selection of the transistor is entirely based on the relay coil current which is needed to energize the relay coil. You can find the resistance of the relay coil using a digital multiple, the voltage is already known which is 12v and then using the ohms law V = IR, you can find the current in milliamps. So, select any NPN transistor whose collector current is greater than the relay coil current. In my case, I selected 2n2222 NPN transistor, as its collector current is much higher than the relay coil current and this transistor is easily available and is very cheap. I recommend you should go for a 2n2222 NPN transistor. The 10k resistor and 2n2222 make the relay driver circuit which is used to control the relay.



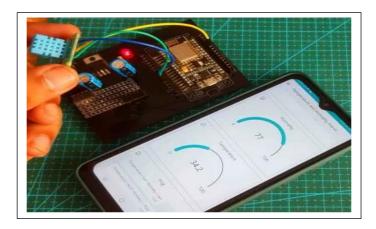
P. Vijay Krishna,
II Year ECE

# Arduino IoT Cloud and ESP8266 with DHT11 for Temperature and Humidity Monitoring

In this article, we are going to use Arduino IoT Cloud with the Nodemcu ESP8266. We will be using DHT11 temperature and Humidity module with the Nodemcu ESP8266. We will measure the Temperature and Humidity and then we will send these values to the Arduino IoT Cloud where these values will be displayed on the Gauges, charts, and message widgets. You can monitor these values using a dashboard on your cell phone or you can also use your computer or laptop. The dashboard which you can see on the cell phone is automatically generated. Anyways, with the help of this project you can monitor the temperature and humidity values from anywhere around the world if you have the internet connection.

These are the minimal connections which you can start with if in case you want to use your laptop to power up the Nodemcu ESP8266, you can use these connections for testing your code. A 10K-ohm resistor is connected between the Data and VCC Pin. The data pin of the DHT11 Sensor is connected with the D4 pin of the Nodemcu ESP8266 WiFi Module.

The DHT11 Temperature and Humidity sensor connection with the Nodemcu ESP8266 remain exactly the same. This time I added this 5V regulated power supply based on the 7805-voltage regulator and don't forget to add these 470uF decoupling capacitors. You will need this 5v regulated power supply for the Nodemcu ESP8266 module because you cannot use your laptop or computer as the permanent power source.

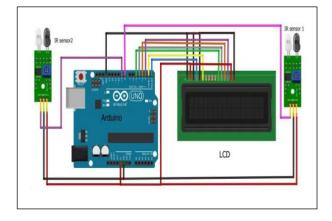


T. Lavanya, IV Year ECE

# Vehicle Speed Detection or Vehicle Speed Measurement using IR Sensor and Arduino

Vehicle Speed Detection or Vehicle Speed Measurement using IR Sensor and Arduino-In this, we will measure the speed of the vehicle using IR sensor, Arduino, and 16×2 LCD. In this project, we will use two IR sensors and place it at a certain distance. As we know that to measure the speed, we need distance and time. In order to find time, we will use the logic that the first IR sensor will detect whether there is some vehicle is present in front of the sensor or not. Then the timer will start and will measure the duration up to the second IR sensor. The time we will get will be in milliseconds, so, in order to convert milliseconds into seconds, we will divide it by 1000. In this project, we have placed the two IR sensors at a distance of 20 centimeters which is equal to 0.2 meters. Now, we want our measured speed to be displayed in the kilometers per hour. So, in order to get the values in the kilometer per hour, we will use the following equation.

IR sensors are basically infrared sensors it consists of two main components one is the IR LED and the other is a photodiode. The IR LED is like a normal LED which will emit light but in the infrared spectrum. So, therefore it is not visible to the naked eye and a photodiode which is also called a light-dependent resistor has a very high resistance in the absence of light and the resistance of the photodiode drops when light falls on it as the name itself indicate the resistance of the photodiode depends on the intensity of light falling on it. A photodiode is a semiconductor that has a PN Junction and it is operated in reverse bias. This is because it starts conducting the current in the reverse direction when light falls on it



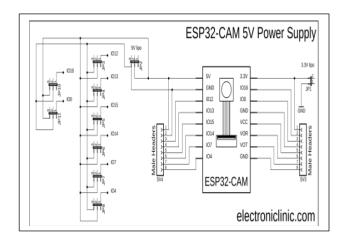
P. V. S. Ram Brahmam,
IV Year ECE

# ESP32 Camera Module Live Video Streaming with Sensor Monitoring and Controlling

The design of your own ESP32 Camera Development Board which can be used for the Live Streaming, sensors monitoring, and controlling anything you want. The PCB boards used in this project are sponsored by the PCBWay Company. Besides this PCBWay also provides a great variety of services including Aluminum PCB, Rigid-Flex, Metal Core, flexible, High Frequency, High-TG, Thick-Copper, HDI, and LED PCBs.

To get rid of the jumper wires I designed the ESP32 Camera Development board which consists of two circuits provided with the male and female headers due to which these boards can be easily connected together without using the jumper wires.

This below schematic of the top PCB board. As you can see there is nothing complicated. Male Headers are connected with the Power Supply and I/O pins of the ESP32 Camera Module. The SV3 and SV4 male headers are used to make connection with the bottom circuit board. The JP1 and JP2 male headers are used to connect 3.3V and 5v Lipo Battery. While all the other male headers are used for interfacing Sensors and other output devices.

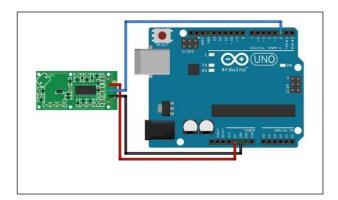


G. Kamala Jasmine,,
IV Year ECE

#### RCWL-0516 microwave radar Sensor with Arduino

RCWL-0516 microwave radar Sensor with Arduino, Circuit and Code- I have been using PIR Sensor, IR Sensors, Ultrasonic Sensors, LDR sensor, Magnetic Reed Switch Sensor, and TOF10120 Laser Range Finder Sensor etc in different beginners, intermediate, and advanced level projects for detecting any activities and then controlling things accordingly. There is another sensor which is RCWL-0516 microwave radar Sensor which is quite different from all the other sensors.

RCWL-0516 sensor which is a motion sensor that uses microwaves and Doppler Effect to detect motion. RCWL-0516 microwave radar Sensor is a technology that uses radar Doppler microwave induction which is special module for detecting moving objects. The other motion sensors that you know well it is a PIR sensor, as the name says it detects the passive infrared light issued by a person or an animal which makes it unlikely to detect things, moving objects such a moving car or a robot or something else. So, this sensor constantly sends microwaves and they reflect back if something is moving. The waves that are reflected back will have a disturbance form which is known as Doppler Effect. The Doppler Effect can be explained, for example a car is moving from right to left. Let us consider, on the right side we have a man and on the left side there is a woman and let's say the car is moving away from the man and is moving towards the woman. When the car starts horns then according to the Doppler effect, when the car moves towards the woman, the frequency of the sound will be double and at the original sound.

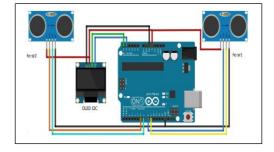


Sk. Afrid, III Year ECE

#### **Visitor counter using Arduino**

In this article we are going to make a bidirectional visitors counting system using Arduino, a pair of Ultrasonic Sensors, and an Oled display module. The Arduino visitors counter will help us in maintaining the number of people who go in and out of a venue or a shop and maintain a maximum limit on the number of people inside it and hence help to maintain social distancing and reduce the transmission of covid-19. So, let's get started so as you can see in the poster here there are a number of people waiting outside the shop and at the door there's a device and that is the device, we are going to make it, a visitor's counter and it counts the number of people going in or out of the shop or the venue and that's exactly what we are going to make. Counting visitors can be quite handy in situation when you need to keep track of all the visitors inside a building, room, or any place. Counting visitors can be implemented using different techniques, you can also make the same visitor counting system using IR sensors, But the reason I am using Ultrasonic sensor is that its detection range is higher than the IR Sensors.

This project can be used for social distancing to maintain a distance between people and make sure that there's not too much crowd. The second is crowd management because even without COVID it's not healthy to have too many people inside premises. So crowd management is another use. In the future you could also integrate this circuit with fans or tube lights and other such electronic equipment inside the shop or office and by doing so you can automate the device and save electricity as well. You can check if there is someone inside the room or shop and then turn ON the lights automatically, and when there is no one inside the controller will automatically turn OFF the loads.

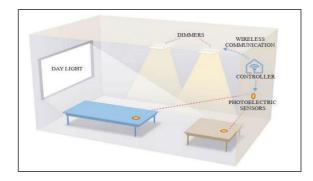


Mr. V. Naveen Raja,
Asst. Professor
ECE Dept.

# LIGHTING CONTROL USING RASPBERRY PI AND OBLO LIVING HOME AUTOMATION SYSTEM

Home automation systems are bringing comfort and safety into the life of a modern human. They are becoming more popular each day and most of the well-known software companies are fighting to offer their newest solution in this area. OBLO Living is a home automation system developed by the scientific research institute "RT-RK". This article presents one successful binding of the Raspberry Pi computer and the OBLO living system. The binding was made using a C++ application developed by the authors of this article. The developed application is executed in real time on the Raspberry Pi platform. It supports a graphical user interface and its purpose is maintaining constant illumination of the room regardless of the daylight.

Within a home automation system, one of the subsystems is usually in charge of lighting control. This type of a subsystem is called a lighting control system and its purpose is to provide the right amount of light where and when it is needed. The amount of needed light is calculated according to a specified criteria, such as minimal energy consumption or time of the day. Lighting control systems can come both in open-loop and closed-loop modes. The simpler ones are operating in an open-loop mode. An example of an open-loop lighting system is a remote binary switch. When it comes to the advanced ones, they are capable of performing more complex operations, such as turning off the lights in the absence of the people in a particular room. Closed-loop lighting control system most often relies either on the photoelectric sensor or on the presence sensor. According to the information acquired from the sensors, they usually control light bulbs with adjustable illumination know as dimmers.



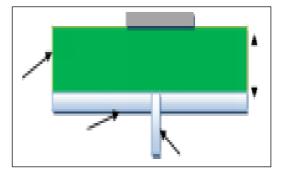
Mr. Sk. Zuber Basha, Asst. Professor, ECE Dept.,

# PERFORMANCE ANALYSIS OF MICROSTRIP RECTANGULAR PATCH ANTENNA

The study of micro strip patch antennas has made great progress in recent years. Compared with conventional antennas, micro strip patch antennas have more advantages and better prospects. They are lighter in weight, low volume, low cost, low profile, smaller in dimension and ease of fabrication and conformity. Moreover, the micro strip patch antennas can provide dual and circular polarizations, dual-frequency operation, frequency agility, broad bandwidth, feed line flexibility, beam scanning omnidirectional patterning. In this paper we discuss the microstrip antenna, types of microstrip antenna, feeding techniques and application of microstrip patch antenna with their advantage and disadvantages over conventional microwave antennas. In this paper we will try to find the changes in the output of the Microstrip antenna when we change the input values. Analyzing rectangular Line-Fed Microstrip antenna using PCAAD 6.0 software.

A feed line is used to excite to radiate by direct or indirect contact. There are many different techniques of feeding and four most popular techniques are coaxial probe feed, micro strip line, aperture coupling and proximity coupling. Coaxial probe feeding is feeding method in which that the inner conductor of the coaxial is attached to the radiation patch of the antenna while the outer conductor is connected to the ground plane. Advantages of coaxial feeding is easy of fabrication, easy to match, low spurious radiation and its disadvantages is narrow bandwidth, Difficult to model specially for thick substrate.

The Micro strip patch antennas are well known for their performance and their robust design, fabrication and their extent usage. The advantages of this Micro strip patch antenna are to overcome their d-merits such as easy to design, light weight etc., the applications are in the various fields such as in the medical applications, satellites and of course even in the military systems just like in the rockets, air-crafts missiles etc. the usage of the Micro strip antennas are spreading widely in all the fields and areas and now they are booming in the commercial aspects due to their low cost of the substrate material and the fabrication.



Dr. V. Venkata Rao Professor & HOD ECE Dept.,

## WORKSHOP DETAILS

S.No	Dept	Name of the Training Programme/Seminar/ Workshop/Conferenc e	Name of the Resource Person and Organization	Name of the Coordinator	Date/s of the event	No. of Partici pants
1	E.C.E	Awareness Program on Gate	Mr. B. Lakshman, Managing Director, GATE 10X Academy, Ongole.	Dr. V. Venkata Rao, Professor & Head of ECE	04-10-2019	150
2	E.C.E	Seminar on Present and Future Trends in Telecommunications	Mr. P. Ravi Prasad Rao, Consultant at Communications in ITE&C, Govt of A.P	Dr. K. Sreenivasa Ravi, Professor	30/09/2019	210
3	E.C.E	One day workshop on eSim, a First course in the IoT Series	PMMMNMTT, MHRD Govt of India in association with IIT Bombay	Mr. V. Rama Krishna Reddy, Assistant professor	21/09/2019	30
4	E.C.E	Seminar on Role of Engineer for Societal Needs and Career Planning and Guidance	Mr. A. Satish IRSE, Dy. Chief Engineer, North Frontier Railways, Assam	Dr. V. Venkata Rao, Professor & Head of ECE	30/08/2019	145
5	E.C.E	Awareness program on Career guidance	Mr. U. Venkateswara reddy, CEO, Worldwide Education and Careers Divison, Guntur	Dr. V. Venkata Rao, Professor & Head of ECE	20/08/2019	160
6	E.C.E	AICTE sponsored Two Week FDP on Emerging Trends in Machine Learning for Biomedical Applications	Dr. Lov Kumar, Dr. S. Priyanka, Dr. C. Srilatha, Dr. Md Farukh Hashmi, Dr. H. Prasanna Kumar, Dr. U.S. Raghupathy, Dr. Usha Rani Nelakuditi, Dr. P. Sudhakar, Mr. T. V. Rao, Mr. Anil Upadhyay	Dr. V. Venkata Rao, Professor & Head of ECE	29/07/2019 to 10/08/2019	69
7	E.C.E	A Five Day FDP on VLSI Chip Design Hands on using open- Source EDA Tool	Electronics & ICT Academy MNIT, Jaipur	Dr. B. Raghavaiah, Associate Professor	08/07/2019 to 12/07/2019	44
8	E.C.E	A Five Day FDP on IoT Application Development using Advanced Processors	Mr. P. Madhu, mad Blocks Technologies Pvt. Ltd., Hyderabad	Dr. V. Venkata Rao, Professor & Head of ECE	03/06/2019 to 08/06/2019.	51

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9	E.C.E	Webinar on Reconfigurable Antennas	Dr M Lakshmi Narayana, Scientist- H(Rtd),DRDL- Hyderabad	Dr. V. Venkata Rao, Professor & Head of ECE	26/05/2020	62
10	E.C.E	One day workshop on eSim, a First course in the IoT Series	IIT Bombay	V Rama Krishna Reddy Asst Prof, Dept of ECE-NEC	21/09/2019	28
11	E.C.E	Workshop on Sci-lab	ICT, IIT Bombay	V Rama Krishna Reddy Asst Prof, Dept of ECE-NEC	04/05/2019	82
12	E.C.E	Webinar on "Comparison on Classical Machine Learning and Deep Learning"	Dr V Anil kumar, Associate Professor,IIIt- Hyderabad	Dr. V. Venkata Rao, Professor & Head of ECE	01/06/2020	55
13	E.C.E	A Five Day FDP on VLSI Chip Design Hands on using open Source EDA Tool	ECT MANT, Jaipur	Dr B Raghavaiah Associate Professor, Dept.of ECE,NEC	08/07/2019 To 12/07/2019	44
14	E.C.E	VLSI Chip Design Hands on using Open Source EDA Tools.	MNIT, JAIPUR	Dr B Raghavaiah Associate Professor, Dept.of ECE,NEC	16/12/19 to 21/12/19	45
15	E.C.E	A Five Day FDP on IoT Application Development using Advanced Processors	Mr. P. Madhu, mad Blocks Technologies Pvt. Ltd., Hyderabad	Dr. V. Venkata Rao, Professor & Head of ECE	03/06/2019 to 08/06/2019	51
16	E.C.E	Recent Trends in IC Design Using Mentor Graphics EDA Tools	Mr.B.Narendra, CoreEL Technologies	Dr. A. V. Nageswara Rao, Associate Professor, Dept.of ECE, NEC	18/11/19 to 22/11/19	61
17	E.C.E	ICT Mode on Effective Teaching	NITTR, KOLKATA	Dr. A. V. Nageswara Rao, Associate Professor, Dept.of ECE, NEC	15/07/2019 to 19/07/2019	65

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18	E.C.E	A Guest Lecture on Computational Electromagnetics  Design and Analysis with Simulation	Dr.T.Venkateswara rao IETE Students Forum(ISF)	Dr. A. V. Nageswara Rao, Associate Professor, Dept.of ECE, NEC	11/03/2020	63
19	E.C.E	Awareness Program on GATE	Mr.M.Kotireddy Mr.Ch.Vamsi Krishna GATE 10X Academy, Hyderabad	Dr K Raju, Professor, ECE dept, NEC	26/02/2020	240
20	E.C.E	A Guest Lecture on "Importance of Goal Setting"	Dr. Garimella Rama Murthy, Mahindra Ecole Centrale, Hyderabad	Dr. V. Venkata Rao, Professor & Head of ECE	21/11/2019	120
21	E.C.E	Awareness Program on Gate	Mr. B. Lakshman, Managing Director, GATE 10X Academy, Ongole.	Dr K Raju, Professor, ECE dept, NEC	04/10/2019	255
22	E.C.E	Poster Presentation	Dr.T.Venkateswara Rao ,ISF	Dr. A. V. Nageswara Rao, Associate Professor, Dept.of ECE, NEC	11/03/2020	68
23	E.C.E	Python Basics Workshop	Yekkanti Venkatesh & Sana Sudha Andhra Pradesh State Skill Development Corporation	Mr. A. Raveendra Babu, Assistant Professor, Dept of ECE-NEC	15/07/2019 To 17/07/2019	58
24	E.C.E	Internet of Things Fundamentals	P.Siddhodhana Sakhambari, I.RaviKumar & Mamidi Jyoshitha Andhra Pradesh State Skill Development Corporation	Mr. A. Raveendra Babu, Assistant Professor, Dept of ECE-NEC	15/07/2019 To 17/07/2019	49
25	E.C.E	One day workshop on eSim, a First course in the IoT Series	PMMMNMTT, MHRD Govt of India in association with IIT Bombay	Mr. V. Rama Krishna Reddy, Asst professor, ,Dept of ECE-NEC	21/09/2019	75
26	E.C.E	A Guest Lecture on "Importance of Goal Setting"	Dr. Garimella Rama Murthy, Mahindra Ecole Centrale, Hyderabad	Dr. A. V. Nageswara Rao, Associate rofessor	21/11/2019	58



A Five Day FDP on VLSI Chip Design Hands on using open-Source EDA Tool on 08/07/2019



Seminar on Role of Engineer for Societal Needs and Career Planning and Guidance on 30/08/2019





A Five Day FDP on IoT Application Development using Advanced Processors on 03/06/2019



Seminar on Role of Engineer for Societal Needs and Career Planning and Guidance by Mr. A. Satish IRSE, Dy. Chief Engineer, North Frontier Railways, Assam on 30/08/2019

#### STUDENT TOPPERS

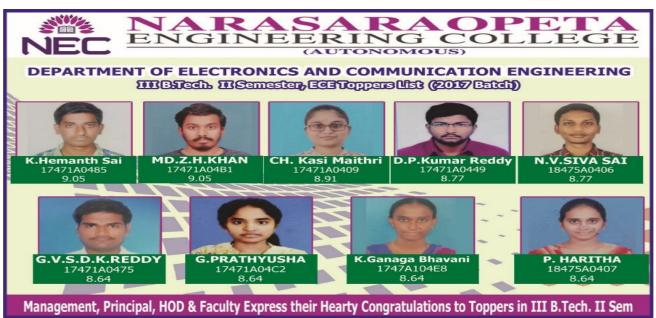














# Department of Electronics & Communication Engineering

IV B.TECH. I SEMESTER, ECE Toppers List (2016 Batch)



KANCHARLA KUSALA 17475A0402



PALAPARTHI SIVARAMAKRISHNA 16471A0496 8.91



KARNATI SIVA RANJANI 16471A04G9 8.91



SHAIK SRINADH 17475A0405 8.82



SHAIK RESHM 15471A04E3



PENUGONDA VENKATA SR RAM BRAHMAM 16471A0438



CHIGURUPATI SRIVANI 16471A0441



KODURU KASI VISWANATH 16471A04C8 8.77



CHATTA SAILAKSHMI 16471A0457 8.64



GOTTAM RAMANA REDDY 16471A0472 8.64



GADIRAJU MANOJ RAM 16471A0497 8.64



ANDE NAGA PAVAN 16471A04A9



### **Department of Electronics & Communication Engineering**

IV B.TECH. II SEMESTER, ECE Toppers List (2016 Batch)



SHAIK RESHMA 15471A04E3 9.59



KODURU KASI VISWANATH 16471A04C8



MANO CHAKR 16471A04E4



KARNATI SIVA RANJANI 16471A04G9 9.45



KUCHIKA MOUNIKA 16471A0426 9.32



BRUNDAVANAM / L N VISHNU BHARADWA 16471A0429 9.32



CHIGURUPATI SRIVANI 16471A0441 9.32



KONDA NANCY SUSHMA 16471A0488 9.32



NARAPAREDDY ROHINI PRIYA 16471A04A1 9.32



ANDE NAGA PAVANI 16471A04A9 9.32



KUNCHALA VENKATA VAMSI 16471A04B2 9.32



YEPURI SAI SARANYA 16471A04B9 9.32



KANCHARLA KUSALA 17475A0402 9.32



SHAIK SRINADH 17475A0405 9.32

## **NPTEL CERTIFICATION DETAILS**

#### FACULTY:

S.NO.	Name of the Faculty	Registered Online Course	Type of	% of
	Member	_	certification	Marks
1	Dr.V.Venkata Rao	Digital Electronic Circuits	Passed	92
2	Dr.A.V.Nageswara Rao	Introduction to Internet of	Passed	97
	_	Things		

#### STUDENTS:

S.NO.	H. T. NO	Name of the Student	Registered Online Course	Type of certification	% of Marks
1	17471A04A3	Tummalacheruvu Sai Teja	Introduction to Internet of Things	Passed	94
2	17471A0436	Iruvanti Satya Sita Rama Sastry	Introduction to Internet of Things	Passed	88
3	17471A0401	Kolla Chakri Sai Vijayachandra	Introduction to Internet of Things	Passed	92
4	17471A04M0	Bapatla Vijayalakshmi	Introduction to Internet of Things	Passed	92
5	17471A0413	Gadam Ram Bhupal Reddy	Introduction to Internet of Things	Passed	94
6	17471A0471	Shaik Mohammad Yaseen	Introduction to Internet of Things	Passed	93
7	17471A04E0	Gademsetty Raga Venkata Deepthi	Introduction to Internet of Things	Passed	94
8	17471A0432	Chandragiri Sai Pragna	Introduction to Internet of Things	Passed	94
9	17471A0429	Nuthalapati Durga Prasad	Introduction to Internet of Things	Passed	93
10	17471A04G8	Yellanuru Jahnavi	Introduction to Internet of Things	Passed	89
11	18475A0403	Surisetti Archana	Introduction to Internet of Things	Passed	93

12	17471A04G5	Gangisetty Jagadeesh Chandra Bose	Introduction to Internet of Things	Passed	95
13	17471A04E4	Vibharampattapu Mamatha	Introduction to Internet of Things	Passed	93
14	17471A0463	Ramcharan Ramisetty	Introduction to Internet of Things	Passed	91
15	17471A0414	Yandapalli Sai Vamsikrishna	Introduction to Internet of Things	Passed	92
16	17471A04A6	Yerramsetty Sai Pavan	Introduction to Internet of Things	Passed	91
17	17471A04M6	Putta Srikanth	Introduction to Internet of Things	Passed	94
18	17471A04D0	Doddakula Prasanth	Introduction to Internet of Things	Passed	96
19	17471A0479	Goli Srinivasarao	Introduction to Internet of Things	Passed	91
20	17471A0403	Manam Yaswanth Chowdary	Introduction to Internet of Things	Passed	95
21	17471A0417	Nemalidinne Venkata Yashaswini	Introduction to Internet of Things	Passed	95
22	17471A04E6	Bhojanapalli tejaswini	Introduction to Internet of Things	Passed	94
23	17471A0451	Shaik Abthab	Introduction to Internet of Things	Passed	93
24	17471A04I3	Prabhu Kumar Tempalli	Introduction to Internet of Things	Passed	93
25	17471A0450	Gopalam Navya Sri	Introduction to Internet of Things	Passed	77
26	17471A0404	Chintaguntla Kalyan Kumar	Introduction to Internet of Things	Passed	92
27	17471A04D4	Vutukuri Tulasiram	Introduction to Internet of Things	Passed	94
28	17471A04F7	Repalle Prathyusha	Introduction to Internet of Things	Passed	91

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29	16471A0405	NVSS Prudhvi Kumar	Introduction to Internet of Things	Passed	91
30	17471A04H0	Duggaraju Gowthamy	Introduction to Internet of Things	Passed	92
31	17471A04C2	Gunda Pruthyusha	Introduction to Internet of Things	Passed	94
32	17471A04G9	Mamidipaka Naga Sushma	Introduction to Internet of Things	Passed	94
33	17471A0454	Anekalla Lakshmanreddy	Introduction to Internet of Things	Passed	93
34	17471A0446	Tallapaneni Vyshnavi	Introduction to Internet of Things	Passed	94
35	17471A0419	Mamidipaka sai Sridhar	Introduction to Internet of Things	Passed	93
36	17471A0474	Bokka John Victor	Introduction to Internet of Things	Passed	88
37	17471A04C6	Pulukuri Sri Prasanna	Introduction to Internet of Things	Passed	93
38	17471A04N3	Yasaswi Yemuluri	Introduction to Internet of Things	Passed	94
39	17471A04F5	Devarapalli naga pooja sai sri	Introduction to Internet of Things	Passed	93
40	17471A0459	Ramidevi Sumanth	Introduction to Internet of Things	Passed	93
41	17471A0433	Sayed Manisha	Introduction to Internet of Things	Passed	93
42	17471A0444	Nandhyala Lingareddy	Introduction to Internet of Things	Passed	92
43	17471A0425	Yakkala Prathap	Introduction to Internet of Things	Passed	92
44	17471A0470	Gopinadh Kunisetty	Introduction to Internet of Things	Passed	93
45	17471A04B1	Mohammed Zakir Hussain Khan	Introduction to Internet of Things	Passed	92
46	17471A0407	Chandan Battula	Introduction to Internet of Things	Passed	91

47	17471A0494	Sayed Mahaboob Jani Basha	Introduction to Internet of Things	Passed	95
48	17471A04A9	Kolla Siva Hemanth	Introduction to Internet of Things	Passed	94
49	17471A04H5	Pamuru Divya	Introduction to Internet of Things	Passed	94
50	17471A04E8	Kollikonda Ganga Bhavani	Introduction to Internet of Things	Passed	95
51	17471A04F4	Chevula Prudhvi raj	Introduction to Internet of Things	Passed	94
52	17471A04J3	Nare Tejaswi	Introduction to Internet of Things	Passed	94
53	17471A04G1	Komireddy Manju Bhargavi	Introduction to Internet of Things	Passed	91
54	17471A04I9	Umamaheswari Narisetti	Introduction to Internet of Things	Passed	95
55	17471A0456	Nandikonda Anji Reddy	Introduction to Internet of Things	Passed	92
56	18475A0407	Haritha Paritala	Introduction to Internet of Things	Passed	94
57	17471A04D6	Shaik Shameem	Introduction to Internet of Things	Passed	92
58	17471A04L6	Divya Medatati	Introduction to Internet of Things	Passed	66
59	18475A0406	Nunna Venkata Siva Sai	Introduction to Internet of Things	Passed	97
60	17471A0420	Pothuri Yaswanth Guptha	Introduction to Internet of Things	Passed	93
61	17471A04A0	Manoj Kumar Muvva	Introduction to Internet of Things	Passed	92
62	17471A0461	Ponugoti Ramesh	Introduction to Internet of Things	Passed	88

63	17471A04E9	Gunta Rohitha reddy	Introduction to Internet of Things	Passed	93
64	18475A0405	Vuyyuru Sri Lakshmi	Introduction to Internet of Things	Passed	92
65	17471A04J7	Sai Kalyan Molamanti	Introduction to Internet of Things	Passed	93
66	17471A0408	Kotabhattar VVS Prathyusha	Introduction to Internet of Things	Passed	92
67	17471A0422	Kalangi Krishna Akhil	Introduction to Internet of Things	Passed	95
68	17471A04E3	Divya Polu	Introduction to Internet of Things	Passed	91
69	17471A04F0	L.V.Sai Vyshnavi	Introduction to Internet of Things	Passed	92
70	17471A0411	Yakkala Naga Madhan Datha Kumar	Introduction to Internet of Things	Passed	92
71	17471A0439	Pasupuleti Suresh	Introduction to Internet of Things	Passed	95
72	17471A04J6	Shaik Afrin	Introduction to Internet of Things	Passed	94
73	17471A0412	Sanampudi Venkata Narasimha Reddy	Introduction to Internet of Things	Passed	88
74	17471A04C7	Bandi Chinnapa Reddy	Introduction to Internet of Things	Passed	93
75	17471A04H6	Shaik Sameer	Introduction to Internet of Things	Passed	94
76	17471A0441	Salman Shaik	Introduction to Internet of Things	Passed	89
77	17471A04B5	Rajendra Bonde	Introduction to Internet of Things	Passed	91
78	17471A0483	Kolluru Krishna Mohan	Introduction to Internet of Things	Passed	95
79	17471A04C0	Bussi Joseph Bala Yaswanth Babu	Introduction to Internet of Things	Passed	92
80	17471A0428	Sankarapu Sekhar Babu	Introduction to Internet of Things	Passed	94

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81	17471A04G3	Kolipakula Devi Chamundeswari	Introduction to Internet of Things	Passed	92
82	17471A0424	Chinni Eswarrao	Introduction to Internet of Things	Passed	95
83	17471A04C8	Pinnika Srivani	Introduction to Internet of Things	Passed	91
84	17471A0421	Popuri Venu	Introduction to Internet of Things	Passed	87
85	17471A04F9	Batchu Durga Bhavani	Introduction to Internet of Things	Passed	94
86	17471A04G6	Guntu Naveen Chowdary	Introduction to Internet of Things	Passed	94
87	17471A0440	Charitha Gudipati	Introduction to Internet of Things	Passed	94
88	17471A04H1	Pasupuleti Rama Krishna	Introduction to Internet of Things	Passed	86
89	18475A0404	Ganesh Paladugu	Introduction to Internet of Things	Passed	93
90	17471A04G0	Dirisala Sravani	Introduction to Internet of Things	Passed	90
91	17471A0427	Koppuravuri Javeen Jithendra	Introduction to Internet of Things	Passed	92
92	17471A0477	Munagapati Manoj Kumar	Introduction to Internet of Things	Passed	91
93	17471A0455	Raghuvu Venkat siva Rama Nagendra	Introduction to Internet of Things	Passed	95
94	17471A0406	Kolisetty Baba Sri Ram Kumar	Introduction to Internet of Things	Passed	94
95	17471A0415	Mamillapalli Sai Ram	Introduction to Internet of Things	Passed	92
96	17471A0442	Mandalapu Akhil Surya	Introduction to Internet of Things	Passed	93
97	17471A0409	Cherukula Kasi Maithri	Introduction to Internet of Things	Passed	95

98	<b>1</b> 7471A0453	Thumati Mukhesh Chowdary	Introduction to Internet of Things	Passed	92
99	17471A0489	Pavan Kalyan Telaprolu	Introduction to Industry 4.0 and Industrial Internet of Things	Passed	94
100	17471A04N1	Anil Kumar Reddy Madhireddy	The Joy of Computing using Python	Passed	62
101	17471A04M7	Mekala Yaswanth Kumar	The Joy of Computing using Python	Passed	91
102	17471A04L0	Jupudi Raju	The Joy of Computing using Python	Passed	94
103	17471A04I5	Tanniru Avinash Babu	The Joy of Computing using Python	Passed	94
104	17471A04J8	Shaik Kandipati Moulali	The Joy of Computing using Python	Passed	96
105	17471A04H4	Rajarapu Srilakshmi Tirumaleswari	The Joy of Computing using Python	Passed	62
106	17471A04M5	Pallempati Durga Prasad	The Joy of Computing using Python	Passed	95
107	17471A04J0	Manyam Uday Bhaskar	The Joy of Computing using Python	Passed	90
108	17471A0455	Raghuvu Venkat Siva Rama Nagendra	The Joy of Computing using Python	Passed	73
109	17471A04A7	Desaboyina Hema Ramachandra Vasu	Digital Electronic Circuits	Passed	82
110	17471A0495	Perumalla Preethi Koumika	Digital Electronic Circuits	Passed	92
111	17471A0498	Jangala Kiran Babu	Digital Electronic Circuits	Passed	60
112	17471A0499	Ramachandrula Kavya sri	Digital Electronic Circuits	Passed	92
113	17471A04B0	Ashok Kumar Akula	Digital Electronic Circuits	Passed	90

114	17471A04C5	Gutha Venkatrao	Digital Electronic	Passed	89
			Circuits		
115	17471A04K3	Kesanapalli Mariya Babu	Digital Electronic Circuits	Passed	92
116	17471A04N0	Shaik Mohammad Sharif	Digital Electronic Circuits	Passed	75
117	17471A0462	Vishnu Babu Mattram	Digital Electronic Circuits	Passed	78
118	17471A04M2	Kandula Gurukiran	Digital Electronic Circuits	Passed	89
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120	17471A04N2	Kadiyam Sudhakar	Digital Electronic Circuits	Passed	75
121	17471A0493	Ganesh Reddy Koppula	Digital Electronic Circuits	Passed	92
122	17471A04D7	Bandaru Mahesh	Digital Electronic Circuits	Passed	87
123	17471A0437	Panga Srinivasarao	Digital Electronic Circuits	Passed	89
124	17471A04L2	Velisala Manish Preetham	Digital Electronic Circuits	Passed	74
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126	17471A04E7	Shaik Javeed	Digital Electronic Circuits	Passed	92
127	18475A0419	Kunda Jashuva	Digital Electronic Circuits	Passed	92
128	18475A0420	Yalavathi Madhubabu	Digital Electronic Circuits	Passed	89
129	18475A0423	Varikuti Krishanjaneyulu	Digital Electronic Circuits	Passed	88
130	17471A04J5	Doppalapudi Nelson Raju	Digital Electronic Circuits	Passed	83
131	17471A0487	Koppuravuri Akhila	Digital Electronic Circuits	Passed	92
132	17471A04K4	Angalakurthi Suma Priya	Digital Electronic Circuits	Passed	92

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133	17471A04A4	Keerthi Jakireddy	Digital Electronic	Passed	90
134	17471A0496	Jani Basha Shaik	Circuits Digital Electronic	Passed	92
135	17471A04H3	Guntupalli Thirumala Prasanna Sankar	Circuits Digital Electronic Circuits	Passed	90
136	18475A0413	Mahendra Janga	Digital Electronic Circuits	Passed	77
137	17471A04K5	P.Vinay Kumar	Digital Electronic Circuits	Passed	89
138	17471A04A1	Kakumanu Sumanth	Digital Electronic Circuits	Passed	89
139	17471A04H8	Madhu Kumar Pusala	Digital Electronic Circuits	Passed	77
140	18475A0422	Gudise Venkatesh	Digital Electronic Circuits	Passed	90
141	17471A04D9	Kosana Pratap	Digital Electronic Circuits	Passed	89
142	17471A04A5	Shaik afrid	Digital Electronic Circuits	Passed	91
143	17471A04A0	Manoj Kumar Muvva	Digital Electronic Circuits	Passed	92
144	18475A0418	Attuluri Syam Prasad	Digital Electronic Circuits	Passed	91
145	18475A0401	Marella Vamsi	Digital Electronic Circuits	Passed	72
146	17471A04F3	Ganji Kranthi	Digital Electronic Circuits	Passed	91
147	17471A04E5	Mandava Sri Bharathi	Digital Electronic Circuits	Passed	91
148	17471A04F8	Kommanaboyina Naga Anil	Digital Electronic Circuits	Passed	90
149	17471A0423	Desaboina Prudhvi Sai	Digital Electronic Circuits	Passed	79
150	17471A0497	Shaik Mohammed Althaf	Digital Electronic Circuits	Passed	87

151	17471A04K6	Shaik Sajid Hasan	Digital Electronic Circuits	Passed	62
152	17471A04B3	Sravan Krishna	Digital Electronic Circuits	Passed	90
153	18475A0421	Mekala Subrahmanyam	Digital Electronic Circuits	Passed	92
154	17471A0488	Naidu Rachana	Digital Electronic Circuits	Passed	91
155	17471A04D1	Arshad Shaik	Digital Electronic Circuits	Passed	91
156	17471A0426	Sai Pavan Pothuri	Digital Electronic Circuits	Passed	91
157	17471A04H7	Kunchala Gopikrishna	Digital Electronic Circuits	Passed	91
158	17471A04K0	Pallepogu Sharonu	Digital Electronic Circuits	Passed	88
159	18475A0408	Maddina Venkata Sandeep	Digital Electronic Circuits	Passed	90
160	17471A04K9	Kusuma Nallamolu	Digital Electronic Circuits	Passed	91
161	17471A04A8	Shaik Tangeda China Baji	Digital Electronic Circuits	Passed	90
162	18475A0402	Rachakonda Syam Prem Kumar	Digital Electronic Circuits	Passed	89
163	17471A0485	Kranthi Hemanth Sai	Digital Electronic Circuits	Passed	92
164	17471A04G4	Bobba Prasanth	Digital Electronic Circuits	Passed	67
165	17471A04H2	Nalagangula Kotireddy	Digital Electronic Circuits	Passed	88
166	17471A04A2	Mallika Yandapalli	Digital Electronic Circuits	Passed	88
167	17471A04B8	Kurangi Mukunda Sai	Digital Electronic Circuits	Passed	92

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168	17471A04J4	Gopi Chand Vaka	Digital Electronic	Passed	90
			Circuits		
169	17471A0410	Kancheti	Digital	Passed	89
		Vinay	Electronic		
			Circuits		
170	17471A0465	Kamma Naga	Digital	Passed	90
		sai Rithvik	Electronic		
			Circuits		
171	18475A0417	Sarikonda	Digital	Passed	89
		Rama	Electronic		
		Krishnam	Circuits		
		Raju			
172	17471A0492	Kattamuri	Digital	Passed	91
1 / 2		Satya	Electronic	1 dissect	
		Narayana	Circuits		
173	17471A04I8	Kesanupalli	Digital	Passed	90
173	11 17 17 10 110	Priyanka	Electronic	1 assect	70
		Filyalika	Circuits		
171	17471A04M4	Datus in Mana		Danad	07
174	1747 18041014	Batraju Naga	Digital	Passed	87
		Umamahesh	Electronic		
	47474 4 0 41/0		Circuits		
175	17471A04K8	Gorantla	Digital	Passed	91
		Ashok	Electronic		
			Circuits		
176	17471A04B9	Gouse Momith	Digital	Passed	92
		Baig	Electronic		
			Circuits		
177	17471A0467	Dande Naga	Digital	Passed	91
		Lakshmi	Electronic		
			Circuits		
178	17471A0475	Godugunuri	Digital	Passed	92
		Vijaya Sai	Electronic		
		Dileep Kumar	Circuits		
		Reddy			
179	17471A0476	Jyothi Prakash	Digital	Passed	90
			Electronic		
			Circuits		
180	17471A04M1	Patibandla	Digital	Passed	89
100		Naresh	Electronic	T dissect	0)
		Turesii	Circuits		
181	17471A0445	Gangavarapu	Digital	Passed	90
101	1747 17(0440	Tejeswr reddy	Electronic	rasseu	90
		rejeswi reddy			
102	17471A04I4	Magtanys1:	Circuits	Donne 1	00
182	1747 1AU414	Mastanvali	Digital	Passed	90
		shaik	Electronic		
100	40.4754.0.100		Circuits		
183	18475A0409	Cherukuri	Digital	Passed	89
		Brahma	Electronic		
		Venkateswrlu	Circuits		
184	17471A0490	Bodempudi sri	Digital	Passed	81
		Harsha	Electronic		
			Circuits		

185	17471A04K2	Gochipathala Raj Kamal	Digital Electronic Circuits	Passed	78
186	18475A0411	Siddela Dileep sagar	Digital Electronic Circuits	Passed	92
187	18475A0414	Gopikrishna	Digital Electronic Circuits	Passed	89
188	17471A04K7	Usaa Pavan Kalyan	Digital Electronic Circuits	Passed	90
189	17471A04L5	Jampani Krishnavamsi	Digital Electronic Circuits	Passed	90
190	17471A04E1	Manikanta Pothuri	Digital Electronic Circuits	Passed	92
191	17471A04C9	Maddi Koti Kiran Kumar	Digital Electronic Circuits	Passed	88
192	17471A04F1	Srinu Ravulapalli	Digital Electronic Circuits	Passed	88
193	17471A0481	Vanukuri Hari vardhan Veera Reddy	Digital Electronic Circuits	Passed	77
194	17471A04L8	Sadhu Koteswararao	Digital Electronic Circuits	Passed	87
195	17471A04B7	Gogula Naveen Kumar	Digital Electronic Circuits	Passed	88
196	17471A04D3	Koneti Suneel	Digital Electronic Circuits	Passed	76
197	17471A0478	Sayed Mohammad Gouse	Digital Electronic Circuits	Passed	80
198	17471A04C1	Vattikonda SivaramaKrishna	Digital Electronic Circuits	Passed	89
199	17471A04L1	Mogal Irfan	Digital Electronic Circuits	Passed	92
200	17471A0468	Janapati Yasswini Jaya Bharathi	Digital Electronic Circuits	Passed	92

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201	17471A0472	Ramisetti	Digital	Passed	91
		Lakshmi	Electronic		
		saiteja	Circuits		
202	17471A04B6	Veena	Digital	Passed	88
		Vatsalya	Electronic		
		Naneem	Circuits		
203	17471A04C4	Garikapati	Digital	Passed	89
		pavan Kalyan	Electronic		
			Circuits		
204	17471A04E2	Shaik Nannu	Digital	Passed	92
		Shaida	Electronic		
			Circuits		
205	17471A04J2	Thitupathirao	Digital	Passed	92
		Gosula	Electronic		
			Circuits		
206	17471A0484	Rachumallu	Digital	Passed	87
		sasidhar	Electronic		
			Circuits		
207	17471A0482	Dileep Kumar	Digital	Passed	90
		Panchumarthi	Electronic		
			Circuits		

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#### **MOUs**



# CHIEF MINISTER'S SKILL EXCELLENCE CENTER





## MEMORANDUM OF AGREEMENT (MOA)

BETWEEN

ANDHRA PRADESH STATE SKILL DEVELOPMENT CORPORATION

AND

Narasaraopeta Engineering College, Narasaraopet

Skill Development, Entrepreneurship & Innovation Department (SDE&I. Dept.), Government of Andhra Pradesh.

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The Agreement is executed on this 24 to day of JULY 2019 (Effective Date) by and between,

Andhra Pradesh State Skill Development Corporation, having its Corporate Office at D.No.78/2, G&J Infra Infosight Building, Near Pathuru Junction, Tadepalli - 522501 herein referred to as "APSSDC" (which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors and assigns) represented by its Authorized Signatory of the first part;

And

NARASARAOPETA ENGINEERING COLLEGE having its corporate office at Kotappakonda Road, Narasaraopeta, Guntur, Andhra Pradesh 522601 herein after called NEC, Narsaraopeta (which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors and assigns) represented by the CHAIRMAN of the second part;

APSSDC and College shall herein after be collectively referred to as Parties and individually as first/second Party.

#### WHEREAS:

APSSDC is a unique organization formed as a public private partnership (PPP) corporation to promote skill-development & entrepreneurship in the state of Andhra Pradesh. APSSDC is the Executive Agency for the Department of Skill Development, Entrepreneurship and Innovation, Govt. of Andhra Pradesh (GoAP) serving the important task of providing high quality skilled manpower as part of the Knowledge and Skills Mission of GoAP. The main objective of the Corporation is to implement a structured and pragmatic solution to skill & upskill the workforce in the State of Andhra Pradesh and to increase employability and promote entrepreneurship in sync with Industrial growth of the State. The process of developing large pool of skilled manpower has been envisaged in partnership with industry to make the skill development mission more industry relevant and self-sustainable, in the process of achieving these goals, the GoAP has

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#### 20.ASSIGNMENT

The Second Party shall not be entitled to, nor shall it purport to, assign this Agreement, without prior consent of the First Party.

This Agreement is prepared in two originals and each party shall retain one copy. Each copy shall be treated as original when taken separately and shall constitute as one

In token of agreement and acceptance hereof by the two parties the authorized representatives of the two parties hereto have affixed their signatures herein below in the presence of witnesses as under:

#### SIGNED ON BEHALF OF

ANDHRA PRADESH STATE SKILL DEVELOPMENT CORPORATION

(Name: Dr. B Nageswara Rao)

Designation: Executive Director

NARASARAOPETA ENGINEERING COLLEGE,

Kotappakonda Road, Narasaraopeta, Guntur, Andhra Pradesh 522601

Name: M.V. KOTESWARA RAO

Designation: CHAIRMAN

Name: Dr. M.

REENIVASE KUMER Name : DT. P. LAKSHMANAN

Signature:

Signature:

PRINCIPAL

Designation: Pof & Head, FFE

Dr. M. SREENIVASA KUMAR

NARASARAOPETA ENGINEERING COLLEGE

APSSDC SPOC

NARASARAOPET - 522 601, Guntur (Dt.), A.P.

