

**Jun 2019, Issue 2**

# **HORIZON**

**DEPARTMENT OF ECE**







**Dr. T. K. Rama Krishna Rao**  
PRINCIPAL

## Principal's Message

The significant problems we face cannot be solved at the same level of thinking we were at when we created them." - Albert Einstein. It is only through knowledge that man attains immortality. Knowledge has to expand or grow to remain knowledge. The road to excellence is toughest, roughest and steepest in the Universe. The world requires and honors only excellence. Available information has to be directed by wisdom and intelligence to create new knowledge. Promotion of creativity is the new role of education. It is only through creative thinking that the present and future problems can be addressed to find dynamic solutions. Technology should be used to help remove poverty from the world. In fact 40% of the world's poor are in India. Confidence leads to capacity. It is faith in oneself that produces miracles. Education at ACET helps build Character, Strengthen the mind, expand the intellect and establish a culture of looking at problems in a new perspective. The student is put through rigorous training so that he can stand on his own feet after leaving the portals of the Institute.



## **Vision**

-->To emerge as a centre of excellence in education and Research

## **Mission**

-->To establish skill and learning centric infrastructure in thrust areas

-->To develop Robotics and IOT based infrastructure Laboratories

-->To organize events through industry institute collaborations and promote innovation

-->To disseminate knowledge through quality teaching learning process.



**Dr. R V V KRISHNA**  
**HOD ECE**

ECE department was established in the year 2004 with an intake of 60 students and now it has been expanded with an intake of 240 students. ECE plays a vital role in Technology Revolution. Our main aim is to generate new knowledge by engaging in cutting-in research to promote academic growth and to develop human potential to its fullest extent so that intellectually capable & imaginatively gifted leaders can emerge in a range of professions. We have Modern state of the art and well furnished labs like Microwave and Optical Communication Lab, Electronic Devices and Circuits lab, Modern Communication Lab, Research lab etc with excellent laboratory facilities and dedicated faculty.



# BLOOD DONATION CAMP

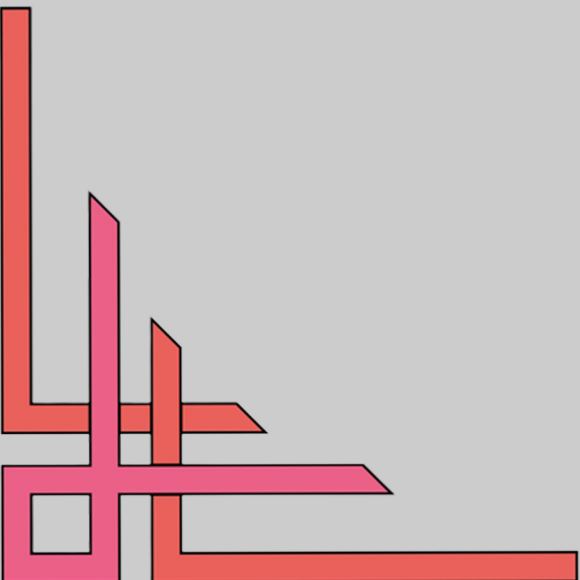
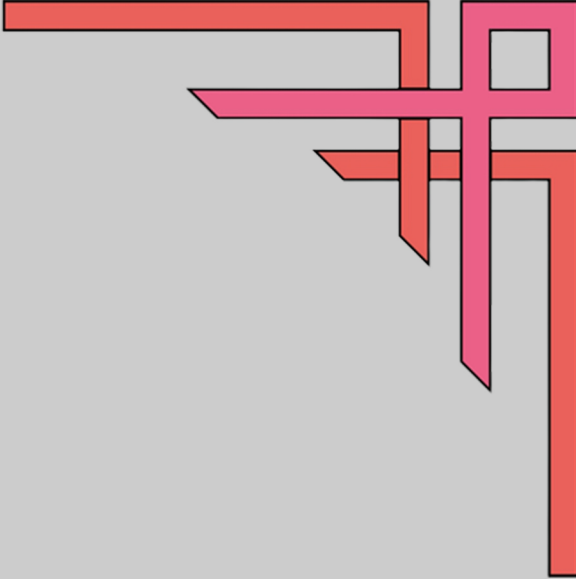
DONATE BLOOD SAVE LIVES



**"BE A BLOOD DONOR, BE A HERO - A REAL ONE"**







# **MAJOR NEWS & INNOVATIONS**



More than 3 million Americans use wheelchairs to get around. But most wheelchairs are bulky and hard to move on many surfaces. Enter the WHILL MODEL CI, a new electric wheelchair. Its specially engineered front “omni-wheels” allow it to go 10 miles indoors or out, climb obstacles two inches high, and maneuver in tight spaces. The wheelchair can also be disassembled, or taken apart, in minutes. This makes it easy to transport.



Many shoe parts are not eco-friendly. Allbirds is trying to change that. It is testing a new material called SWEETFOAM, which is made from parts of sugarcane that would otherwise be thrown away. Allbirds launched SweetFoam in a line of flip-flops. The company plans to use the material across all of its product lines.

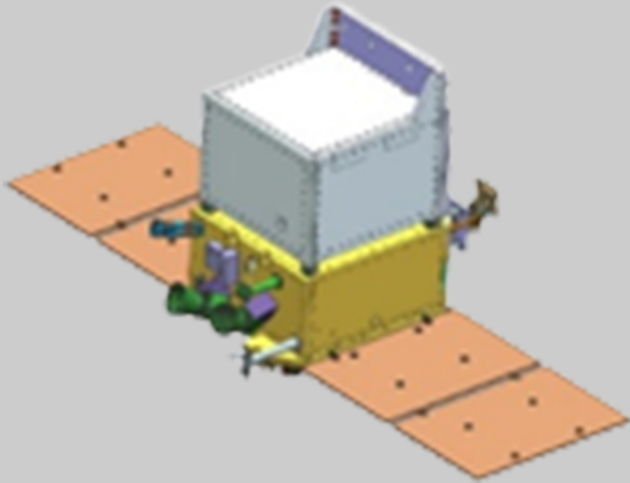




Gravity Industries, a company based in Salisbury, England, has developed the coolest flying suit since Iron Man. The GRAVITY JET SUIT includes five mini jet engines. Two are built into each of the hand units, and one is built into the backpack. It can fly at 50 miles per hour. For now, the suits are extremely expensive and extremely loud. Inventor and company founder Richard Browning hopes to raise money to develop a quieter, cheaper electric version.

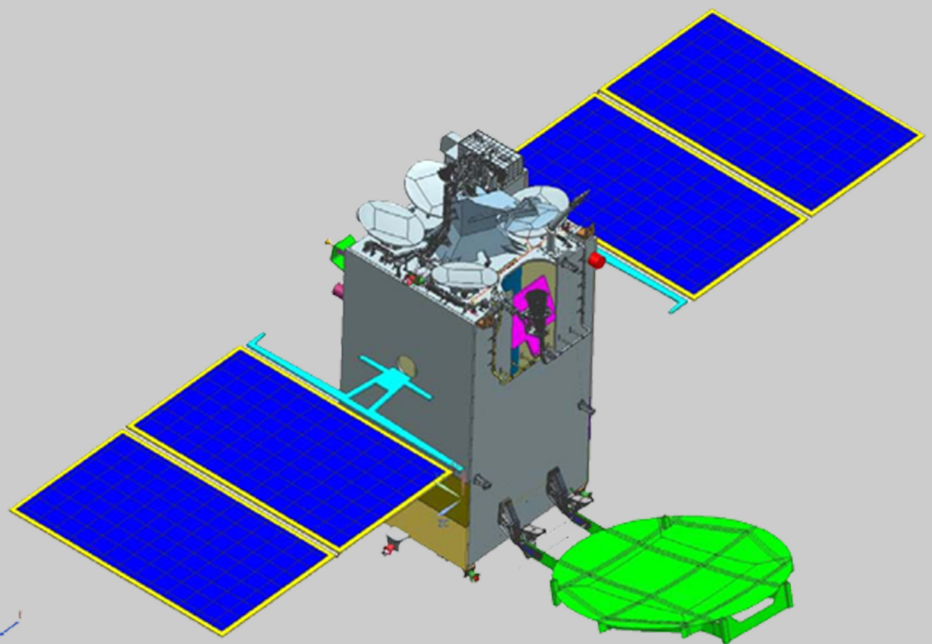


Eargo Max (\$2,450) is a rechargeable hearing aid made specifically for people with mild to moderate hearing loss. Traditional hearing aids wrap around the ear and typically require several fittings and appointments with audiologists. Eargo Max, by contrast, fits comfortably inside the ear and can be bought online with help from a specialist.



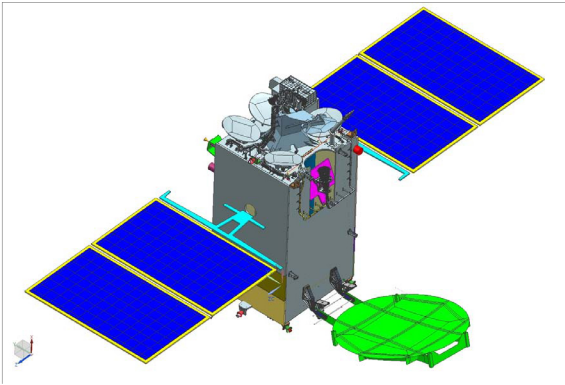
# LAUNCHES

## 2018-19





## **GSAT-7A**

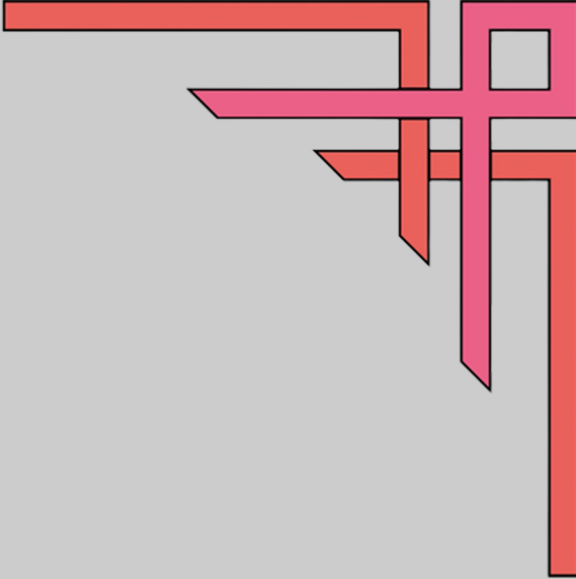


**GSAT-7A is the 35th Indian Communication satellite built by ISRO. GSAT-7A Spacecraft is configured on ISRO's standard I-2000 Kg (I-2K) Bus. The Satellite is built to provide communication capability to the users in Ku-band over the Indian region.**

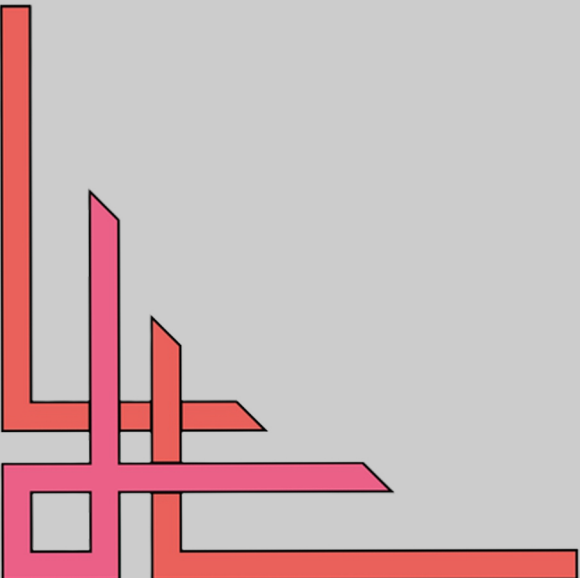
## **GSAT-11 Mission**

**India's next generation high throughput communication satellite, GSAT-11 was successfully launched on December 05, 2018 from Kourou launch base, French Guiana by Ariane-5 VA-246. Weighing about 5854 kg, GSAT-11 is the heaviest satellite built by ISRO.**

**GSAT-11 is the fore-runner in the series of advanced communication satellites with multi-spot beam antenna coverage over Indian mainland and Islands. GSAT-11 will play a vital role in providing broadband services across the country. It will also provide a platform to demonstrate new generation applications.**



# **Faculty Publications & Achievements**





# DIFFERENCE BETWEEN AR, VR, AND MR

Augmented reality (AR) adds digital elements to a live view often by using the camera on a smartphone. Examples of augmented reality experiences include Snapchat lenses and the game Pokemon Go.

Virtual reality (VR) implies a complete immersion experience that shuts out the physical world. Using VR devices such as HTC Vive, Oculus Rift or Google Cardboard, users can be transported into a number of real-world and imagined environments such as the middle of a squawking penguin colony or even the back of a dragon.

In a Mixed Reality (MR) experience, which combines elements of both AR and VR, real-world and digital objects interact. Mixed reality technology is just now starting to take off with Microsoft's HoloLens one of the most notable early mixed reality apparatuses.

Extended Reality (XR) is an umbrella term that covers all of the various technologies that enhance our senses, whether they're providing additional information about the actual world or creating totally unreal, simulated worlds for us to experience. It includes Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR) technologies.



**K PARVATEESAM**

# Augmented Reality (AR)

Augmented reality (AR) is one of the biggest technology trends right now, and it's only going to get bigger as AR ready smartphones and other devices become more accessible around the world. AR let us see the real-life environment right in front of us—trees swaying in the park, dogs chasing balls, kids playing soccer—with a digital augmentation overlaid on it. For example, a pterodactyl might be seen landing in the trees, the dogs could be mingling with their cartoon counterparts, and the kids could be seen kicking past an alien spacecraft on their way to score a goal.

With advances in AR technology, these examples are not that different from what might already be available for your smartphone. Augmented reality is, in fact, readily available and being used in a myriad of ways including as Snapchat lenses, in apps that help you find your car in a crowded parking lot, and in variety of shopping apps that let you try on clothes without even leaving home.

## Types of AR

There are two broad types of augmented reality, these being marker-based and markerless.

**Marker-based AR** uses image recognition to identify objects that have been pre-programmed into your AR device or app. Fiducial markers (something placed in the field of view for use as a point of reference) help the AR device determine the position and orientation (called pose) of its camera.

**Markerless AR** is a bit trickier. Not having markers means that nothing has been preprogrammed into your device—it has to recognize items on the fly. The recognition algorithm in your device looks for patterns, colors, or other features that might tip it off.





# **FACULTY ACHIEVEMENTS**





# NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

Sl. No.	Name of the faculty	Name of the course	Dates/duration	Remarks
1.	KORANGI L VIJAYA PRASAD	COMPUTER NETWORKS AND INTERNET PROTOCOL	12 WEEKS	SUCCESSFULLY COMPLETED
2.	B DIVAKAR	BASIC ELECTRICAL CIRCUITS	12 WEEKS	ELITE
3.	V.PREETHI	BASIC ELECTRICAL CIRCUITS	12 WEEKS	SUCCESSFULLY COMPLETED
4.	MARRI PRASANTH	PRINCIPLES OF SIGNAL ESTIMATION FOR MIMO/ OFDM WIRELESS COMMUNICATION	12 WEEKS	ELITE+SILVER
5.	V VIJAYASRI BOLISETTY	DISCRETE TIME SIGNAL PROCESSING	8 WEEKS	ELITE+SILVER
6.	RELANGI ANIL KUMAR	APPLIED OPTIMIZATION FOR WIRELESS, MACHINE LEARNING, BIG DATA	12 WEEKS	ELITE+SILVER
7.	RAMA THULASI	DIGITAL CIRCUITS	12 WEEKS	ELITE
8.	RAYUDU SAI LAKSHMI	DIGITAL CIRCUITS	12 WEEKS	ELITE
9.	P. SWARNALATHA	DIGITAL CIRCUITS	12 WEEKS	ELITE
10.	BHAVANI SANKAR P	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
11.	A ARUNKUMAR GUDIVADA	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
12.	K. NARASIMHARAO	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
13.	MAHESH NAIDU GANTASALA	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
14.	ARUNA JYOTHI CHAMANTHULA	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
15.	R.V.VIJAYA KRISHNA	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
16.	KAGANA SARATH BABU	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
17.	P. APURVA	DIGITAL CIRCUITS	12 WEEKS	ELITE
18.	SANIPINI VENKATA KIRAN	DIGITAL CIRCUITS	12 WEEKS	ELITE
19.	SNEHA M JOSEPH	DIGITAL CIRCUITS	12 WEEKS	ELITE
20.	S. ANNAPURNA DEVI	DIGITAL CIRCUITS	12 WEEKS	ELITE+SILVER
21.	ANJALIAH TALAMALA	DIGITAL CIRCUITS	12 WEEKS	ELITE
22.	RAMESH KUMAR PADALA	DIGITAL CIRCUITS	12 WEEKS	ELITE





# NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

23.	EMANDI JAGADEESWARA RAO	ARCHITECTURAL DESIGN OF DIGITAL INTEGRATED CIRCUITS	12 WEEKS	ELITE+SILVER
24.	KAPULA KALYANI	DIGITAL IMAGE PROCESSING	12 WEEKS	ELITE+SILVER
25.	D KISHORE	DIGITAL IMAGE PROCESSING	12 WEEKS	ELITE
26.	RAMA VASANTHA ADIRAJU	DIGITAL IMAGE PROCESSING	12 WEEKS	ELITE+SILVER
27.	P. APURVA	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
28.	KAGANA SARATH BABU	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
29.	RAMA VASANTHA ADIRAJU	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE
30.	MARRI PRASANTH	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
31.	B DIVAKAR	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE
32.	V.PREETHI	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
33.	EMANDI JAGADEESWARA RAO	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
34.	RAYUDU SAI LAKSHMI	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
35.	A ARUNKUMAR GUDIVADA	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE
36.	K. NARASIMHARAO	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
37.	KAPULA KALYANI	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE



# NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

38.	RAMESH KUMAR PADALA	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
39.	KORANGI L VIJAYA PRASAD	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE
40.	SNEHA M JOSEPH	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE
41.	ARUNA JYOTHI CHAMANTHULA	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE
42.	ANJALIAH TALAMALA	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
43.	BHAVANI SANKAR P	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	ELITE
44.	S. ANNAPURNA DEVI	OUTCOME BASED PEDAGOGIC PRINCIPLES FOR EFFECTIVE TEACHING	4 WEEKS	SUCCESSFULLY COMPLETED
45.	RELANGI ANIL KUMAR	INTRODUCTION TO PROBABILITY AND STATISTICS	4 WEEKS	ELITE
46.	RAMA THULASI	EMBEDDED SYSTEM DESIGN WITH ARM	8 WEEKS	ELITE+SILVER
47.	KAGANA SARATH BABU	PRINCIPLES OF SIGNALS AND SYSTEMS	12 WEEKS	ELITE+SILVER
48.	RELANGI ANIL KUMAR	EVOLUTION OF AIR INTERFACE TOWARDS 5G	8 WEEKS	ELITE+GOLD
49.	MARRI PRASANTH	EVOLUTION OF AIR INTERFACE TOWARDS 5G	8 WEEKS	ELITE+SILVER
50.	D KISHORE	ELECTROMAGNETIC WAVES IN GUIDED AND WIRELESS MEDIA	8 WEEKS	ELITE
51.	BHAVANI SANKAR P	BIOMEDICAL SIGNAL PROCESSING	12 WEEKS	SUCCESSFULLY COMPLETED
52.	EMANDI JAGADEESWARA RAO	CMOS DIGITAL VLSI DESIGN	8 WEEKS	ELITE
53.	SNEHA M JOSEPH	CMOS DIGITAL VLSI DESIGN	8 WEEKS	SUCCESSFULLY COMPLETED
54.	V VIJAYASRI BOLISSETTY	MULTIRATE DSP	12 WEEKS	ELITE+SILVER
55.	RAMESH KUMAR PADALA	MULTIRATE DSP	12 WEEKS	SUCCESSFULLY COMPLETED
56.	KAPULA KALYANI	CONTROL ENGINEERING	12 WEEKS	SUCCESSFULLY COMPLETED





# STUDENT ACHIEVEMENTS







**Congrats for Securing First Prize in Project Presentation  
@JNTU Kakinada.**

**Project Title : IOT BASED REAL TIME HEALTH  
MONITORING SYSTEM**



**Mr. Poorna Chandra  
Rao(15P31A04H9) of ECE  
Secured Man of the Match  
Award in JNTUK Cricket  
Tournament in 2019**

# PLACEMENT POINT



# CONGRATULATIONS



**15P31A04H9**  
**Mr. P CHANDRA RAO**



**16P35A0423**  
**Miss D AMRUTHA REDDY**

## ***HCL***



**15P31A04L1**  
**Mr. DURGA PRASAD**

**A D A Q**

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**ADVANCED DATA ACQUISITION**



# CONGRATULATIONS



**15P31A04E0**  
**Mr. J SURESH**



**15P31A04E1**  
**Mr. M DURGA PRASAD**



**15P31A04M4**  
**Mr. P B TEJA**



**15P31A04N5**  
**Mr. T P REDDY**

# CONGRATULATIONS



**15P31A04C2**  
**Mr. SIVA REDDY**



**15P31A04C3**  
**Mr. AYUSH CHAUBEY**



**15P31A04G2**  
**Mr. RAVI RANJAN**



**15P31A04G3**  
**Mr. RITESH**



**15P31A04N3**  
**Mr. SURI MADHAV**



**16P35A0416**  
**Mr. B DURGA PRASAD**

# ***NANDEE NETWORKS***

# CONGRATULATIONS



**15P31A04F7**  
**Mr. P MANOJ**



**15P31A04I0**  
**Mr. Y VAMSI TEJA**



**15P31A04F7**  
**Mr. P MANOJ**





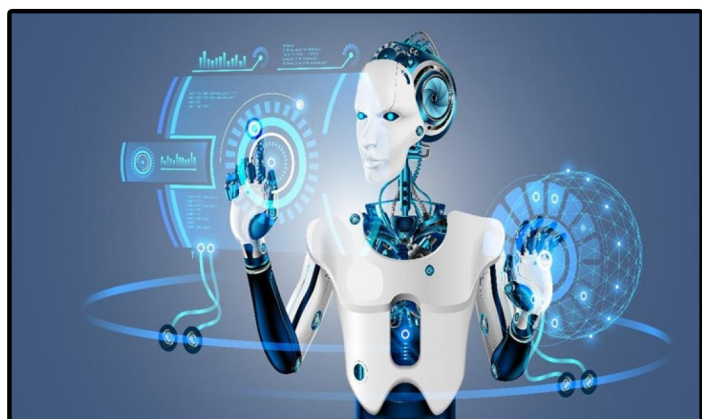
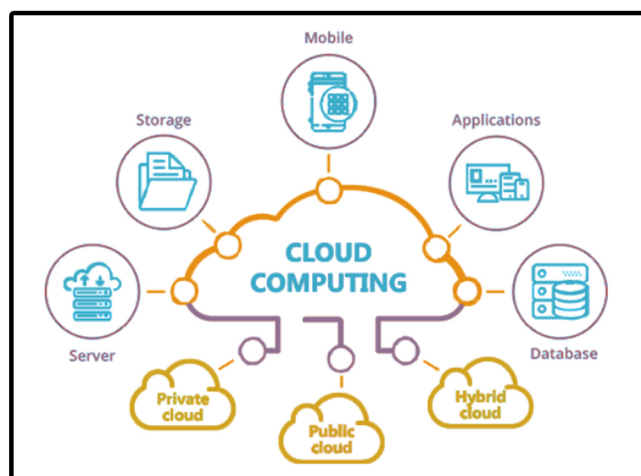
# WORKSHOPS CONDUCTED

## **WORKSHOP 1 : AP CLOUD**

**RESOURCE PERSON : Miracle Soft Solutions**

**DATES : 26-11-2018 to 30-11-2018**

**NO OF STUDENTS ATTENDED : 54**



## **WORKSHOP 2 : IOT & ROBOTICS**

**RESOURCE PERSON : SAK ROBOTICS**

**DATES : 11-12-2018 & 12-12-2018**

**NO OF STUDENTS ATTENDED : 40**

## **WORKSHOP 2 : Hands-on training on " Ethical hacking & Pentesting Tools"**

**RESOURCE PERSON : D Ramesh, Rajesh, Manoj**

**DATES : 7-12-2018 to 8-12-2018**

**NO OF STUDENTS ATTENDED : 135**





# EDITORIAL BOARD

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**Mrs. P SWARNALATHA**      **Assistant Professor**

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**Ms. P SIREESHA**      **(16P31A0441)**

**Ms. M DATTU**      **(16P31A0426)**







# A Synonym For Placements

