Events organized in the department

ECE Distinguished Alumni Lecture series on "**Machine Learning and its Applications in Precision Aquaculture**" was conducted on 11 th August 2022. Mr. Pasula Raghunanadan delivered an exemplary talk on how aquaculture is operated in the open ocean and the emerging technology of deep learning can be more accurate in acquiring biological information of fishes. He explained about universities in USA and their research areas. He raised a flash light to educate the budding engineers in the scope of ECE.

On 26 th August 2022, VRSEC IEEE Student Branch, Department of Electronics and Communication Engineering of Velagapudi Ramakrishna Siddhartha Engineering College organized a webinar on "**Career Suggestions in ECE**" from 2PM. Dr.D. Venkata Rao, HOD, ECE, Dr.V. Praveen Naidu, IEEE Student Branch Counsellor and around 131 members from ECE department registered for the session and participated. The chief guest of the session was Mr. G VijayKumar (GATE AIR 35 rank - 2021). At present, he is as trainee at NTPC, Kobra, Chhattisgarh. During the lecture Mr.G.VijayKumar shared some of his experiences, study plans, steps to prepare for GATE examination and also mentioned about the job opportunities through GATE examinations.

Dr.A. Jhansi Rani, Professor & Ch.Raghavendra Assistant Professor, ECE, organised One Day National Seminar on "**Quality Research Article Publication Guidelines and Indexing**" on 20th Aug 2022. Dr. B.T.P Madhav, Professor & Director (Academic Research), Dept of ECE, K L Deemed to be University delivered lecture on research measurement, paper preparation guidelines, construction of research paper, and submission guidelines.

Dr Khalim Meerja Ahamed Professor, ECE, organised a "**Guest Lecture on Block Chain Technologies**" on 10th August 2022. Dr. Shaik Shakeel Ahmad from Majmaah University, Saudi Arabia was the guest who shared his expertise on Block Chain Technologies. In the presentation he shared the real-life situations of the usage of Block Chain Technology. Fundamental concepts on this technology were shared giving the analogy of book. Centralized and decentralized systems were discussed and the concept of public-key cryptography was discussed. Along with this the Bitcoin was discussed and the system used in Bitcoin was discussed. Other applications such as health care, property buying and selling, insurance, etc were discussed in the presentation. IV BTECH ECE students attended the lecture in the ECE seminar hall.

Dr. G. Suryanarayana Assistant Professor and Dr. Venkata Sainath Gupta T Assistant Professor ECE Department, conducted a Training Program on organized a One Day Training program **"Research Article Writing using LaTeX - the easy way (overleaf)"** on 3rd August 2022. Around 35 candidates comprising faculty & PG students have registered for the event. Introduction to LaTeX, Overleaf Article and Report Writing, Table and Figure handling in LaTeX, Equation writing, Bibliography (Managing references) Preparing sample IEEE paper were the major
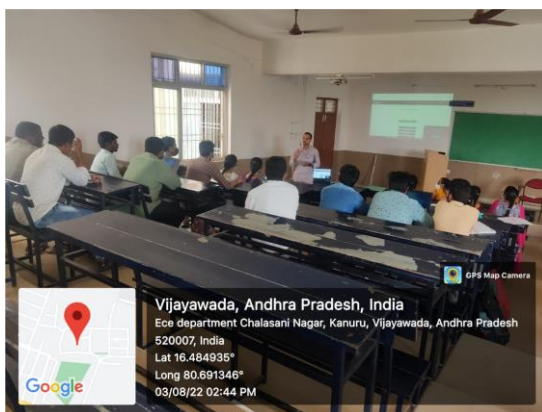
Faculty interaction with outside world

Faculty of ECE - Interaction with Mr.P.V.N.Naidu AXEN/SW/CPOH/RYP for the Project in Indian Railways

Faculty of ECE - Interaction with The Efftronics

DST- NGP sponsored 21-day Summer School on Geospatial Technologies

On 13th June, 2022, the **DST- NGP sponsored 21-day summer school on geospatial technologies** was inaugurated by Dr. D. Narayana Rao, Pro-Vice Chancellor, SRM University, AP, briefed about the importance of Agriculture and applications of Geospatial in Agriculture. Prof. Mariappan, NST-NGP coordinator briefed about the plans for all the days of the FDP. On day 2, Prof. Mariappan, VRSEC, gave a brief introduction on various image processing techniques and their applications with respect to agriculture. The session briefed about different techniques for detecting the crop damage due to various reasons due to excessive use of insecticides, insects, etc. Followed by this session, Dr. Rama Subba Rao, VRSEC, presented an introduction to QGIS tool for the geospatial applications and conducted a tutorial session on geospatial maps with QGIS. On Day 3, Dr. Preethi Latha, Scientist, APCRDA, presented a lecture on Basic geodesy -Spherical, ellipsoidal and geoidal earth, map projections, Geodetic datum-concept and types. She also dealt with hands-on session -working with projections using QGIS with using DST-IGET dataset Dr. Anuradha & Dr. Ebenezar, VRSEC briefed about various Big-data techniques with reference to agriculture. On day 4 & 5, Dr. P. P. Choudhary, University of Mumbai, presented various data sources available for geospatial technology research and study, understanding data quality, data quality elements, followed by the hands-on session on Georeferencing and data extraction with DST-IGET dataset and map projections. On day 6, Dr. Phanindra, IIT Hyderabad, presented a lecture on Digital Cartography Cartographic Evolution Map classification, etc. He briefed about the Remote Sensing applications in Hydrology using various methods. Followed by this session, Dr. Srinivas, Professor, VRSEC, delivered a lecture on Introduction to DBMS, importance of databases in GIS and a hands-on session on working with tables. On day 7, 8 and 9, Dr.V. Sathya Kumar, SASTRA, Thanjavur, presented lecture on Measurements, Queries Buffering and neighbourhood functions, Map overlay, etc. and handled the hands-on session on working with queries. On day 10-12, Dr. Mohana, Scientist, Centre for Remote Sensing, Satyabhama University, Chennai, briefed about various image super-resolution techniques and its clarity in viewing with reference to the images of Geospatial applications. The session also briefed about the applications of Super-Resolution in Agriculture. Followed by this, introduction to Machine Learning and its algorithms, Deep Learning algorithms and its various applications in Agriculture. On day 13, Introduction to Google earth engine was explained by Mr. Amit Mishra, Vice President, Vassar labs, Bangalore. He also handled the hands-on session on Terrain analysis. On day 14, Understanding Terrain Data, Introduction to DEM, DTM, DSM and hands-on session with spatial data analysis was given by Dr. A Ramiya, IIST, Thiruvananthapuram. On 28th June, 2022, a visit to Space Application Centre, Vijayawada was made. On 30th June 2022, sample projects on geospatial technologies were presented by Dr. K. Ramesh, PVP Siddhartha Inst of Technology, Vijayawada. On the final day of 2nd July, 2022, Shri. M.Arulraj, Scientist, NRSC, Hyderabad, briefly discussed about acquisition of rural population data and the employment opportunities generation using Geospatial technique. In the concluding session, the valedictory address was presented by Dr. Shuba Pandey, Scientist and Head of NGP Division, DST, Govt of India, New Delhi. Dr. B. Sundar, Vice-Chairman, AP Space Application Centre, Vijayawada, chief guest of valedictory, discussed about spectral applications in Agriculture.

Faculty Publications

1. Saritha, V., Chandana, S.L., Mahalaxmi, U.S.B.K., ...Chawla, P, Chaturvedi, A."An intelligent sensing and detection system for accident prevention in four wheeler vehicles" Materials Today: Proceedings,2022 (Article).

2. V. K. Padarti, M. Ghantasala, S. N. Jarapala, K. S. Nunna and T. T. Suramsetty, "Computationally Efficient Hybrid Algorithm for Peak to Average Power Ratio Reduction in Multiuser MIMO OFDM System," 2022 Second International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), July,2022, pp. 1-6, doi: 10.1109/ICAECT54875.2022.9808074.

3. V. K. Padarti, C. Dasari, P. V. Venu Gopal Dokala, V. Sravya Chowtapalli and L. V. Rama Kowshik Avula, "An Efficient Clipping Method for PAPR Reduction in OFDM Systems," 2022 International Conference on Inventive Computation Technologies (ICICT), August,2022, pp. 624-629, doi: 10.1109/ICICT54344.2022.9850836.

Patents applied

Mr P. Satyanarayana, Assistant professor, ECE filed for a patent titled "Deep Convolution Neural Network for Health Data Images in Clinical Treatment Classification in Big Data" with Application No: 202241038488. The date of filing of Application was 02/07/2022 and its Publication Date was 05/07/2022.

Mr. P Satyanarayana
Assistant Professor
ECE

Student Publications

N. S. S. Pranavi, T. K. S. S. Sruthi, B. J. Naga Sirisha, M. S. Nayak and V. S. G. Thadikemalla, "Credit Card Fraud Detection Using Minority Oversampling and Random Forest Technique," 2022 3rd International Conference for Emerging Technology (INCET), 2022, pp. 1-6, IEEE. DOI: 10.1109/INCET54531.2022.9824146

Faculty participation in FDP/Seminar/Workshops

1. Mrs. Vanka Saritha from Velagapudi Ramakrishna Siddhartha Engineering College attended the expert lecture on "Microstrip Antenna Design and Optimization using Full Wave Simulator" organized by IEEE APS SBC MNIT in association with IEEE SB MNIT, IEEE RFIDSBC MNIT & IEEE Delhi APS Chapter-Jaipur on September 3, 2022.

2. K. Shri Ramtej participated in the online Faculty Training Program on "5G Wireless Communication Technology" organised by IEEE India Council from 28.07.2022 to 30.07.2022.

3. K. Shri Ramtej attended one week FDP on "Data Engineering" conducted by Department of CSE, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad from 16.08.2022 to 20.08.2022.

4. Dr Venkata Sainath Gupta T participated in the online Faculty Training Program on "5G Wireless Communication Technology" organised by IEEE India Council from 28.07.2022 to 30.07.2022.

5. Dr Venkata Sainath Gupta T attended one week FDP on "Data Engineering" conducted by Department of CSE, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad from 16.08.2022 to 20.08.2022.

6. P. Vijay Kumar attended One week Faculty Development Program On "Amazon Web Services" during the period of 22nd August 2022 to 27th August 2022 Organized by Department of Computer Science and Engineering, Kumaraswamy College of Engineering, Karur, Tamil Nādu in collaboration with Brain O Vision Solutions India Pvt.Ltd & All India Council for Technical Education – AICTE.

SMART INDIA HACKATHON -2022

It is a Govt. of India Initiative. It is conducted every year across India under the supervision of AICTE. Rasamsetty Pranay, A Nishanth, N N S P Revathi, Y Tirumala Teja, R Geetha Manohar, G Phanindra, IV BTECH students from E.C.E. department, VRSEC, were selected for the grand finale of Hackathon – 2022 held at I.I.T. Roorkee from 25th Aug to 29th Aug 2022 (5 Days). The team got selected under the category-Smart Education, Hardware Edition. The problem statement was given by AICTE-MIC Innovation Cell. The students designed and developed a writing machine for specially-abled students to help them in their examination as scribes do in which, the machine receives the voice of specially-abled student speaks, converts it into geometric language, and writes on paper as a scribe does. Students received First Prize with a Cash prize of 1 Lakh. The award was received from the hands of chief guests Shri Vinay Shankar Pandey (I.A.S), District Magistrate of Haridwar, Uttarakhand, Prof. Ajit Kumar Chaturvedi, Director, I.I.T. Roorkee.

APPLE & THE WORLD

"A brand that thinks different"

Divakar Chelluri
208W1A0408

Apple was founded in 1976 by Steve Jobs and Ronald Wayne. The company started by selling personal computers, which were relatively new at the time, Mr. Jobs came up with an idea of a personal computer that was smaller and more portable than existing models. He designed a computer using off-the-shelf parts and created a new operating system for the computer. The new computer was a great success, and Apple expanded its product line to include computers and other electronic devices such as mobile phones and music players. Through the years, Apple has continued to release innovative products that established new benchmarks in the electronics industry.

Over the years, Apple has revolutionized the way consumers use and interact with electronic devices. It has created products that make people's lives easier. They have introduced products that allow people to communicate with each other, such as the iPhone and iPad. They have also developed products that are specifically designed for students, such as the MacBook Air. These innovative products have changed the way that we live and work today.

Apple continues to revamp the electronics industry by creating products that are both easy and fun to use. They create and adopt novel technologies into their products to make them to match the technological trend. They strive to develop new technologies that will continue to shape the way people live in the future.

Mac

Apple started its business by selling computers. Macintosh brought a whole new revolution to the computer industry. It is the 1st desktop personal computer with Graphical User Interface (GUI). Macintosh changed the era of computers from Commands and DOS operating systems to easily usable Graphical interface. Apple's
PowerBook (2003) was the first portable computer to have a backlit keyboard and light sensors. MacBooks are one of the best-performing laptops in the world. Macs are widely used for video editing in cinematography as it provides the best GPU and better software. The latest MacBook Pro comes with Apple M1 Max chip features the powerful 10-core CPU and adds a massive 32-core GPU.

iPod

iPod is the product which made Apple popular. The introduction of the iPod into the commercial market has opened doors for Apple to venture into the electronic market and became leader of the electronic industry. iPod changed the way people used to listen to music. iPod was launched in the year 2001. It has 5GB storage which can store Thousands of songs in a portable music player. iPod launched various models of iPod for a variety of users. iPod became a device in which songs can be stored from the computer. It won't be an exaggeration to say that iPod made digital music a trend.

iPhone

The Tech industry was revolutionized by Apple, the introduction of the multi-touch display in its 1st iPhone launched in 2007 is among them. The multi-touch display enabled zooming the content on the smartphone. This innovation in smartphone display made browsing web content more convenient and better. iPhone has made photography a habit for people. iPhone enabled internet connectivity into a smartphone. iPhone is well known for its privacy. The recently launched iPhone 14 Pro comes with A16 Bionic Chip which contains 16 billion Transistors with 14 nm technology, is the fastest chip ever kept in a smartphone. It also provides satellite connectivity.

iPad

iPad changed the tablet world. It became a replacement for Laptops. iPad made creative work easier. Apple Pencil made easier to make notes on iPad. Apple Pencil is mainly useful for artists to make sketches and drawings. iPad was portable and lightweight. iPad is very useful for office works.

iWatch

iWatch brought a new era in wristwatches. iWatch is the most advanced smartwatch. iWatch helped many people in saving their lives. It can be used as a car key. Apple Watch allows users to make payments using their watch. Users can even play games, reply to messages and can check the news. It tracks the heart rate, monitors sleep and has many modes to track many physical activities. Watch Os supports connectivity with all other Apple devices.

macOS & iOS

macOS is the best operating system with GUI. macOS provides better security than the other GUI operating systems. macOS provides an ecosystem for all Apple products to connect starting from iPod to the iWatch. It provides an easier way to share the data between Apple devices. iOS provides a clean OS for iPhones. iOS is considered the most secure OS for a smartphone. These both OS made Apple's ecosystem to be the best.

Three Apples that changed the world:

One apple led to the human race, another apple laid a path for many inventions, The third Steve's Apple which brought a new age to the Consumer Electronic Industry.

1. *Adam and Eves Apple*

According to Bible the apple eaten by Adam and Eve resulted in starting of the Human race.

2. *Newton's Apple*

The apple which made Newton to discover the Gravity has helped the human race to make many inventions and helped humans to set foot on the moon. This discovery has paved a path for space research.

3. *Steve's Apple*

The things we are experiencing in this modern era are because of Apple, established by Steve Jobs and Ronald Wayne in a garage. When the whole world was trying to use internet facilities using computers Apple made it simpler by launching various devices which support internet connectivity. Apple took the whole Electronic World to new heights by changing the landscape of electronic device design and fabrication. Without Apple's innovations in electronic industry the concept of connectivity around the globe at the finger tips still would be a fantasy.

Apple made many innovations that changed how we use electronic gadgets in the present days. Apple kept several benchmarks for its competitors to survive in the electronic tech industry. The 'i' in the iPhone, iPad, iMac, iPod stands for five things 'internet', 'individual', 'instruct', 'inform', 'inspire'.

Acknowledgement

Take me back to those days

when my smile isn't fake

To the times I knew nothing

about the world and the

principle it works on..

Take me back to the times

when I stared blankly out of window

daydreaming about the beautiful world

I thought will be waiting for me

I feel the same old body ache

all over again

and I once again wonder

if I can ever get used to it

By

Sanjivini Narina
208W1A04A2
III B. Tech Sec-B

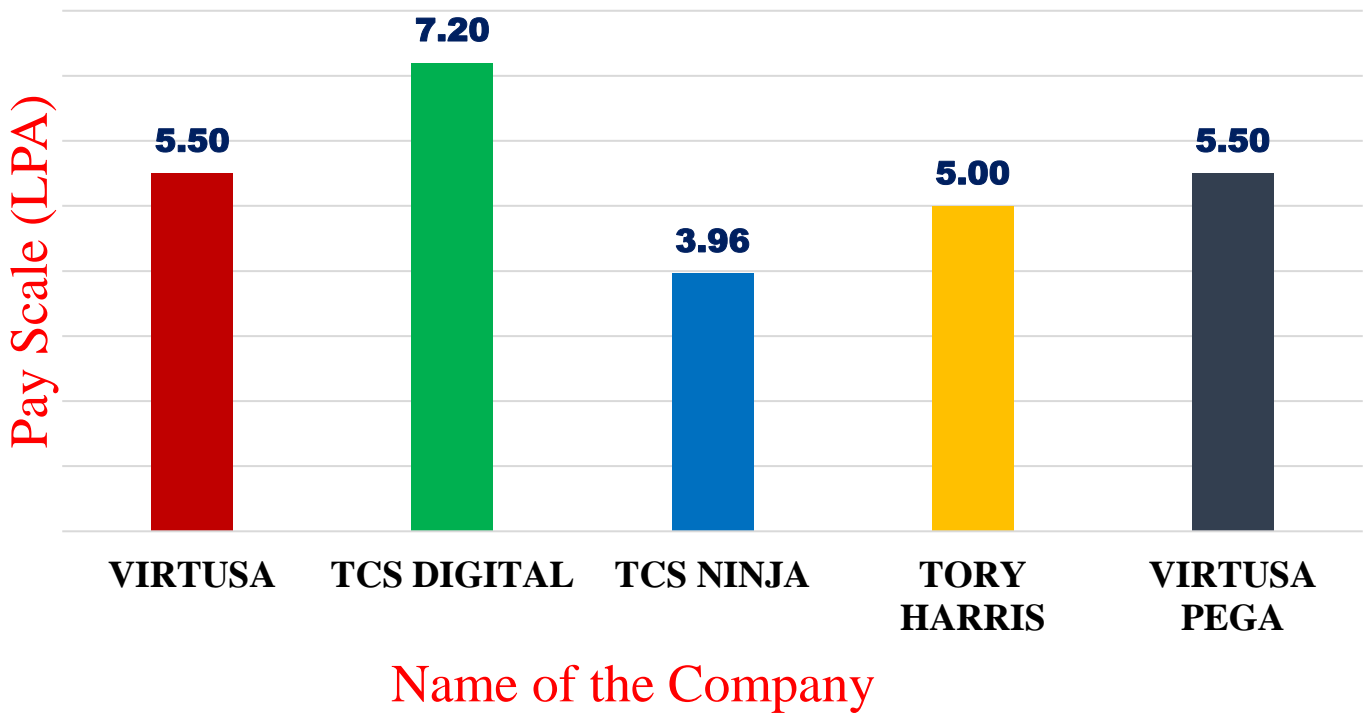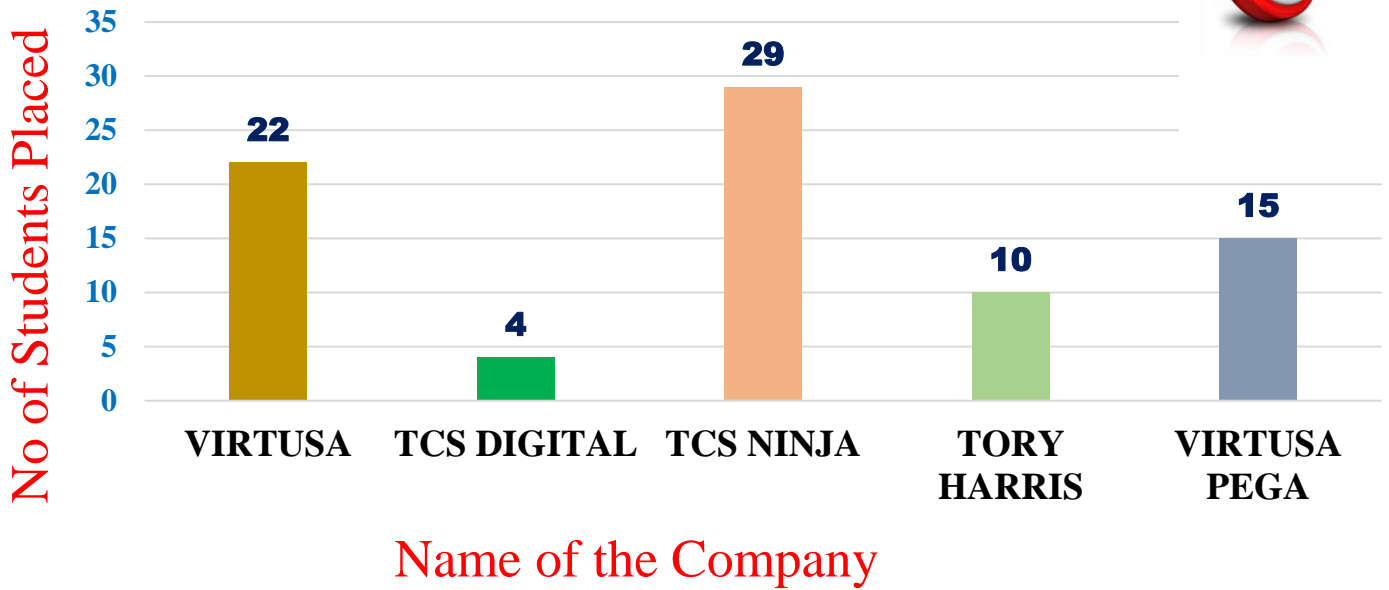# PEGA bootcamp for students - Prize winner in various events

Tech Show Time: Presentation of a topic or concept on PEGA CSA with practical examples, memes, quizzes, PowerPoint presentation etc.,

HR Apps Presentation: HR Apps is a combination of 2 or 3 PEGA Applications that is given to students. Students were able to complete this application within two days and they have to present it.

Hackathon Presentation: Students were given a PEGA real time application and they have to complete within one day and should present this application.

Placement Details…..during July &August 2022

No of Students Placed vs **Name of the Company**

Name of the Company	No of Students Placed
VIRTUSA	22
TCS DIGITAL	4
TCS NINJA	29
TORY HARRIS	10
VIRTUSA PEGA	15

Pay Scale (LPA) vs **Name of the Company**

Name of the Company	Pay Scale (LPA)
VIRTUSA	5.50
TCS DIGITAL	7.20
TCS NINJA	3.96
TORY HARRIS	5.00
VIRTUSA PEGA	5.50

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