ENCYNOSURE

Sep' 2024

...let's Excel

13th Issue

VISHNU INSTITUTE OF TECHNOLOGY (A)
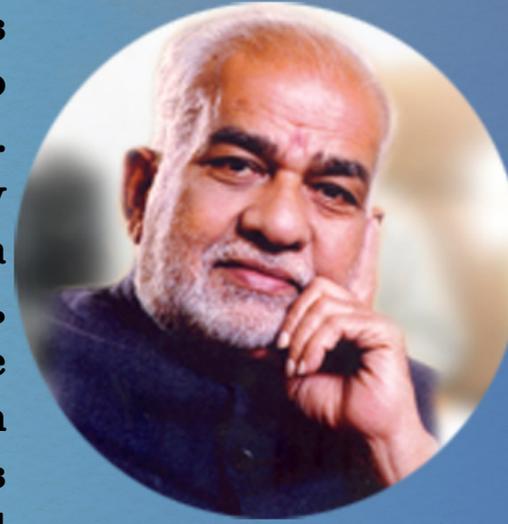

VISHNU

UNIVERSAL LEARNING

Vishnu Institute of Technology (Autonomous)

Vishnu Institute of Technology, the scion of Shri Vishnu Educational Society was established in 2008 and is currently the eleventh educational institution to disseminate education under the aegis of this society. Nascent that it is, it combines in its matrix the lofty idealism of its Founder Chairman the Late Padma Bhushan. Dr. B. V. Raju, a distinguished industrialist, philanthropist and an element educationalist; the experience and vigour provided by the Chairman Sri K. V. Vishnu Raju , a man of holistic vision and his team comprising dexterous administrators, reputed academicians and brilliant line students. They constantly strive to make the institution join the ranks of prestigious technical institutions.

Padma Bhushan Dr. B. V. Raju

Campus

The campus, sprawling over 100 acres, is located in the verdant atmosphere of Vishnupur, Bhimavaram. It is in the vicinity of the town and is well connected by rail and road. VISHNU provides a home away from home to students who opt for a residential mode of education. The hostels are amdist the serene and picturesque green ambience congenial to pursue education.
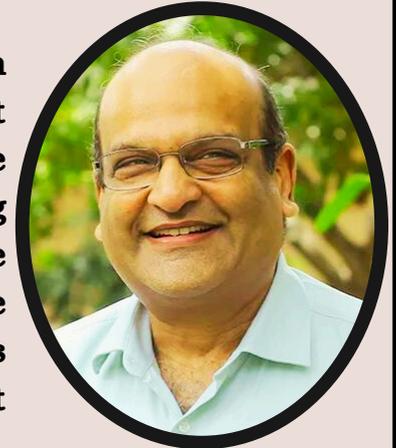
Hands on Experience

To make the instruction in VISHNU more practical-oriented, special focus is on hands on experience. The Assistive Technologies Lab works in collaboration with the University of Massachusetts, USA to help students combine technology with a humane approach. Gadgets for the physically challenged are designed and developed here by students under the guidance of eminent professors both from the Institute and abroad. VISHNU aims at empowering students with technical skills and a "can-do" entrepreneurial spirit. The IBM Software Centre of Excellence in the campus provides students with World-Class education there by increasing the skill set of each student and faculty for a great career.

HELM OF AFFAIRS

Academics are a continuing process of exploration, growth and sustenance. Today information explosion has brought about many changes. Every day brings in new demands. One has to constantly upgrade to cope with the fast emerging trends. Hence it has become imperative to all the stakeholders in education to strengthen themselves with the necessary knowledge, skills and attitude to keep themselves abreast of the rapid changes. The stimulus has been given it is time for your response.

Sri K. V. Vishnu Raju
Chairman, SVES

I come with deep insights into quality education in the areas of future skills required to be embedded in the courses offered by our autonomous colleges across Sri Vishnu institutions, and industry relevant knowledge to drive disruptions in higher education. I'm in close coordination with the Vishnu Educational Development and Innovation Centre (VEDIC) at Hyderabad, a campus dedicated to innovations in teaching pedagogy, learning styles and continuous assessment methods for active learning of students.

Sri Ravichandran Rajagopal
Vice Chairman, SVES

The way I want to inspire as a leader is to keep the faculty focused on the objective of the business of education itself and to keep my students engaged in a meaningful way and not only through the regular academic rigor of running a syllabus but also to identify their inner talent. Therefore it is as much an important attribute that we need to bring into our students in our college and create career track paths through interactions with them. My job is to bring that experience by giving them the right alignment tools to accomplish their goals.

Sri K. Aditya Vissam
Secretary, SVES

It gives me an immense pleasure to note that the Department of Electronics and Communication Engineering is bringing out the departmental magazine. Students have enormous powers inherent in them. A college is a wonderful institution which can bring to fruition the latent talents of its wards. Magazine is one of the forums by which students can exhibit their talent in literary skills. I am happy to note that a group of students who are interested have come forward to make it a reality. I see their thirst to prove themselves and their talent through the medium of communication.

I strongly feel that education is a blend of academic excellence and creativity and as the Principal of the college; my motto is to encourage and empower our students to grow as a strong, reflective and humble individuals with discerning minds, prepared to make a mark in all spheres of life.

I congratulate teaching and non teaching staff, editorial board and students of ECE Department for bringing this edition of Magazine Wish you all the best.

Dr. M.VENU
PRINCIPAL

Ms. M. SRILAKSHMI
VICE-PRINCIPAL

Our priority is to provide every one with formal qualification for a rewarding career. In Vishnu, we aim for every student to settle in a suitable career path of choice. Together with the entire supportive community of vishnu's dedicated faculty and staff, we will do our best to provide you with a caring environment that will enable you to take the right steps towards a brighter future and career success, as well as outstanding student experiences. We pride ourselves in timely completion by students. I therefore wish to urge you to work hard from the very beginning and remain steadfast.

With immense pleasure, I with my faculty team play a vital role in leading the ECE Department of Vishnu Institute of Technology towards development with growing pace of technology. Department magazine EnCynosurE is one such part of initiative, which empowers our students towards overall development of one's self, department and the organization. Through this platform I would like to congratulate the VIT-ECE for continuing the bimonthly department magazine EnCynosurE. I'm sure this technical culture will be a platform to both student and faculty fraternity to exhibit the hidden talents. Finally, my best wishes to the editorial board members and huge applause to the contributors for taking the responsibility and making this happen.

Dr. N. PADMAVATHY
HOD - ECE

VISION OF THE COLLEGE

To empower the students through Academic excellence and Ethics so as to bring about social transformation and prosperity.

MISSION OF THE COLLEGE

- To expand the frontiers of knowledge through quality education.
- To provide value added Research and development.
- To embody a spirit of excellence in Teaching, Creativity, Entrepreneurship and Outreach.
- To provide a platform for synergy of Academy, Industry and Community.
- To inculcate high standards of Ethical and Professional behaviour.

VISION OF THE DEPARTMENT

In pursuit of world class excellence in the field of Electronics and Communication Engineering by empowering quality education and research.

MISSION OF THE DEPARTMENT

- To empower the students with knowledge and competencies in the frontier fields conforming to international standards.
- To enable the students to develop innovative solutions in collaboration with industries and research institutes to meet the local and global needs through project based learning.
- To mould the students professionally with a consciousness of moral values and professional ethical code.

ABOUT THE INSTITUTION

Vishnu Institute of Technology, was established in 2008 by Sri Vishnu Educational Society (SVES), a leading educational trust to promote quality education, under the aegis of eminent philanthropist Padma Bhushan Dr. B.V.Raju (Late). The institute is approved by AICTE and is permanently affiliated to JNTUK, Kakinada. It has got Autonomous status in the academic year 2019-20 and is accredited by NBA and NAAC 'A+' with 3.51 CGPA. We offer 9 UG Courses, 4 PG Programs and we also offer research degree programs in ECE and Mechanical Engineering

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

To impart value based technical education and train students to turn out fullfledged engineers in the field of Electronics & Communication Engineering with an overall background suitable for making a successful career either in Industry/Research or higher education i.e, from AY 2008-09 with an intake of 60 students. Presently, the intake of the ECE Department is 180 students. The department has faculty strength of 44 well qualified, experienced and dedicated Post graduates with 7 Doctorates and some of them are pursuing Ph.D in different streams and 6 supporting staff.

The department encourages students into postgraduate studies and prepares them for leadership roles in research and development. ECE Department is recognised as Research Centre by JNTU Kakinada in AY 2019-20. Along with UG, one M.Tech course in Digital Electronics and Communication Systems from AY 2014-15 with an intake of 18 students is also offered.

The ECE department has good infrastructure with 8 different labs namely Microwave Engineering lab, Microprocessor Lab, Digital ICs Lab, Communications Lab, Computer Lab, EDC Lab, LIC Lab, DSP & VLSI Lab. All the labs are fully equipped to provide the present day advanced technology. ECE department has three Centre of excellences, Assistive Technology Lab (ATL), National Instruments lab (NI) and Drone Centre of Excellence (DCE).

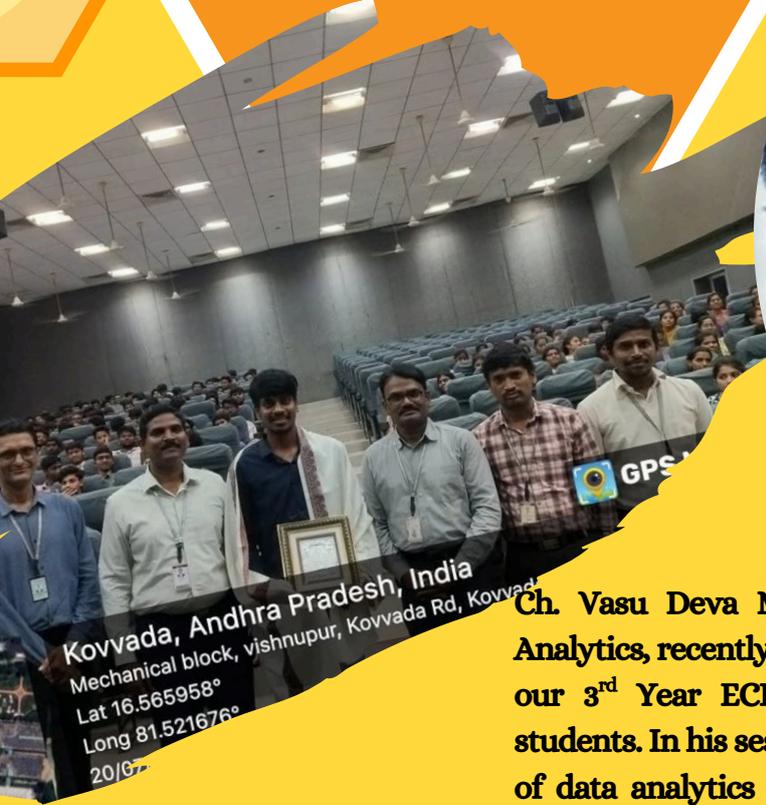The Department has student's chapters like IETE Student's Forum and ISTE Student's chapter.
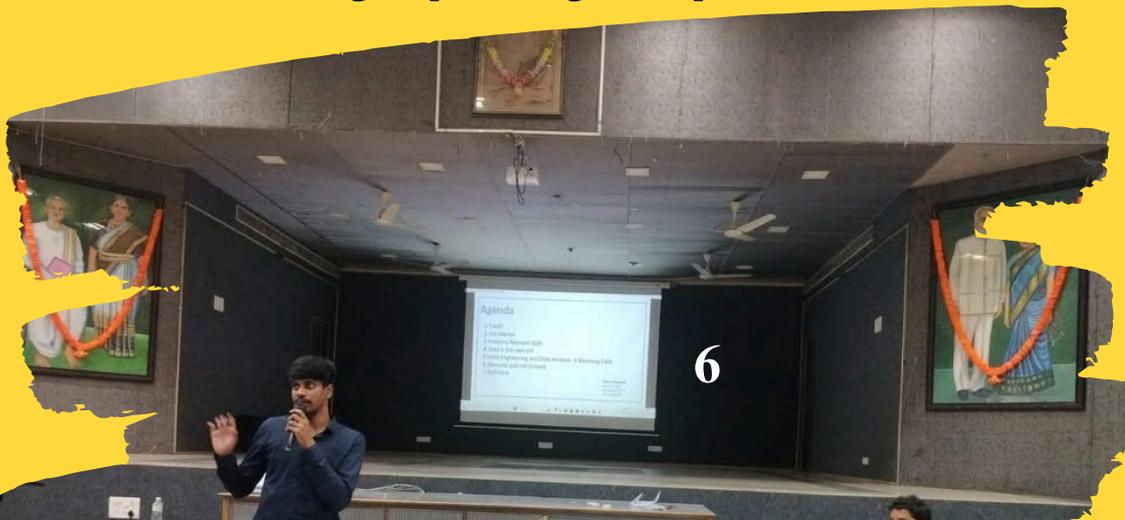
Speaker: Ch. Vasu Deva

Ch. Vasu Deva Mahesh Babu, a professional working in Quant Analytics, recently delivered an insightful talk on Data Engineering to our 3rd Year ECE (Electronics and Communication Engineering) students. In his session, Mahesh Babu shared his expertise in the field of data analytics and its growing relevance in today's tech-driven world.

He explained the core concepts of Data Engineering, highlighting how it involves the design, development, and management of systems that allow for the collection and processing of vast amounts of data.

He also touched upon the various tools and technologies used in data engineering, such as ETL processes, databases, and cloud computing platforms. Additionally, Mahesh emphasized the importance of skills such as programming (Python, SQL) data warehousing, and big data technologies (like Hadoop and Spark).

The session was interactive, with Mahesh Babu providing real-world examples and encouraging students to explore career opportunities in the field of data science and engineering. He stressed the growing demand for data engineers in multiple industries, making it a promising career path for students to consider.

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Hustlethon

The Spark Tank Internal Hackathon – Hustlethon, organized by the **ECE department**, was successfully completed with great enthusiasm and innovation. The event, aimed at fostering creativity and technical problem-solving among students, saw active participation from numerous teams.

Participants were challenged to design and develop practical solutions to real-world problems, showcasing their skills in coding, problem-solving and teamwork. The hackathon encouraged collaboration and quick thinking, with teams working against the clock to come up with unique and functional prototypes.

Throughout the event, students demonstrated their knowledge in areas such as software development, embedded systems and electronics. The competition also highlighted the importance of working under pressure and delivering quality results within a limited timeframe.

The event concluded with an award ceremony where the winning teams were recognized for their outstanding projects. Overall, Hustlethon was a huge success, providing a platform for students to enhance their technical abilities and creativity, while also encouraging a spirit of innovation and teamwork.

Our esteemed Judges:
- **Dr. N. Padmavathy,** HOD-ECE, Dean R&D
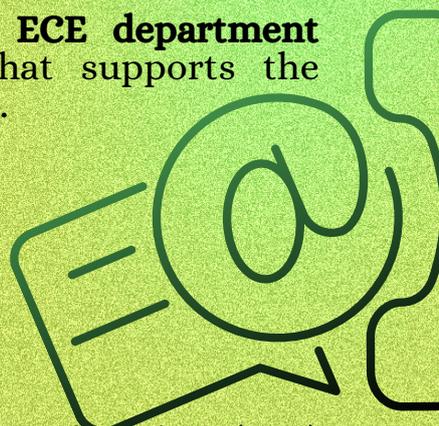- **Dr. G. Prasanna Kumar,** Professor

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MIC

Driven Session

"Creating and Managing YUKTI Innovation and IPR Repository" is an initiative by the Ministry of Education, Government of India, aimed at fostering a culture of innovation and entrepreneurship within Higher Educational Institutions (HEIs). The program focuses on building a comprehensive repository of ideas, innovations, and startups developed by students and faculty, thereby promoting systematic nurturing of these innovations.

By actively participating in the **YUKTI program, the ECE department** contributes to the creation of a robust ecosystem that supports the transformation of innovative ideas into successful startups.

The Electronics and Communication Engineering (ECE) department plays a pivotal role in this initiative by:

- Organizing Competitions: Facilitating intra- and inter-institutional competitions to encourage students to present innovative ideas.
- Mentorship Programs: Providing one-on-one mentoring to refine and develop ideas into viable prototypes.
- Financial Assistance: Assisting students in obtaining financial support from government schemes to establish startups based on their innovations.

EMBEDDED WORKSHOP

The 3rd Year Electronics and Communication Engineering (ECE) students from VIT-B attended a five-day Embedded Systems workshop held from 26th to 30th July at VEDIC, Bangalore. The workshop was conducted by KR Aerospace Systems Pvt. Ltd. and aimed at enhancing the students' understanding of embedded systems and their application in aerospace technologies.

Topics Covered:

- **Embedded Systems Basics:** Understanding the core concepts of embedded systems and their importance in modern technology.
- **Applications in Aerospace:** Focus on how embedded systems are used in aerospace applications, including satellite technology, space exploration, and control systems.
- **Hands-On Training:** Students were involved in practical sessions to work with embedded hardware and software, developing a deeper understanding of system integration and real-world applications.
- **Expert Sessions:** Industry experts from KR Aerospace shared insights on advanced embedded systems technologies used in aerospace, such as satellite communication, sensors, and control systems.

"Space Odyssey: A Journey Through the Cosmos"

Vishnu Institute of Technology Department of Electronics and Communication Engineering (ECE) proudly celebrated the First National Space Day on 23/08/2024. The event was inaugurated and set the tone for the session.

Dr. N. Padmavathy (HOD-ECE, Dean R&D) emphasized the importance of India's National Space Programs and highlighted SVES's visionary approach towards advancements in space technology. The event aimed to inspire and showcase the significance of space exploration in shaping the future.

Guest Speaker:

- Dr. J. Doondi Kumar, Assoc. Professor (Member in Vishnu Space Application Center) delivered an eletrifying presentation on India's space technology growth and VSAC's cutting-edge facilities at Bhimavaram.

Key takeaways:

- Growth of Space Technology in India.
- VSAC facilities at VIT-B.
- Exciting opportunities in HAM radio, satellite tracking.

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RESEARCHERS DAY

Researchers Day Event - ECE Department, Vishnu Institute of Technology.

The Researchers Day event organized by the **Electronics and Communication Engineering (ECE) Department at Vishnu Institute of Technology** will be held on **28th August 2024**. The event will focus on promoting research and innovation among students and faculty members in the field of Electronics and Communication Engineering. It aims to highlight the importance of research in advancing technology and fostering academic growth. The Chief Guest for the occasion will be Dr. Narasimha Rao Banavathu, a distinguished academician from the National Institute of Technology (NIT) Andhra Pradesh. Dr. Narasimha Rao Banavathu is well-known for his contributions to the field and will share his valuable insights on research methodologies, emerging technologies, and career development in academia and industry. The event is expected to inspire and motivate the attendees to engage in meaningful research activities and further their academic pursuits.

Insightful Addresses by:

- **Dr. N. Padmavathy (HOD & Dean R&D)**
- **Prof. K. Srinivas (Dean Academics)**
- **Prof. M. Srilakshmi (Vice-Principal)**
- **Dr. M. Venu (Principal)**
- **Dr. B. Narasimha Rao's enlightening talk on UAV systems & DRONE technology.**

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RESEARCH

CODE & CONNECT: ECE'S MORSE CODE JOURNEY

From 9th to 14th September 2024, the ECE Department at VIT-B buzzed with excitement as it hosted a transformative HAM Radio Morse Code Workshop. Spanning six enriching days, this event brought together 40 students and 10 faculty members to explore the timeless art of Morse Code and the cutting-edge world of HAM radio communication. Led by the expertise of **Dr. Doondi Kumar Janapala and Mr. Mulagala Dileep**, the workshop blended theory with hands-on practice, equipping participants with skills to encode and decode signals like seasoned operators.

The workshop's success reflected the department's commitment to fostering practical learning beyond the classroom. For students, it was a chance to bridge theory with real-world applications, while faculty members enriched their perspectives on communication technologies.

The Department of Electronics and Communication Engineering successfully hosted a one-week hands-on workshop on Embedded Systems and IoT from 23th –28th September 2024. The event, graced by Dr. V. Ravi Kumar, Professor at KL University, Hyderabad, as Chief Guest, saw enthusiastic participation from 120 students, organized into 20 groups of six members each.

Key Topics Covered:

- Fundamentals of Embedded Systems and IoT.
- IoT Architecture.
- Hardware-Software Integration.
- Real-time Applications.
- Hands-on Projects with Node MCU and ESP32.

Students delved into the dynamic world of embedded systems and IoT, unlocking a treasure trove of insights through immersive, hands-on projects. By tinkering with hardware and software integration, they sharpened their practical skills and built a robust foundation for pioneering future innovations in IoT applications.

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This initiative provided students with a strong foundation in embedded systems and IoT, equipping them for future innovations in these dynamic fields

R &D WORKS

I. Acted as Resource Person:

- **Dr. N. Padmavathy and Dr. G. Prasanna Kumar** are submitted a project proposal to AICTE ATAL titled "Recent Advancements in AI Applied for Signal, Speech and Image Processing" on 24.05.2024, Amount: Rs.3,39,000

- **Dr. N. Padmavathy** acts as Reviewer, Journal of Reliability and Statistical Studies (JRSS), Reviewer 2024 1st International Conference on the Innovations in Communications, Electrical and Computer Engineering (ICICEC 2024), Reviewer ICMSMT 2024, Reviewer 2nd International Conference on Artificial Intelligence: Theory and Applications, Reviewer 5th International Conference on Data Science and Applications, Reviewer 2024 IEEE World Conference on Applied Intelligence and Computing, Reviewer 2nd International Conference on Artificial Intelligence: Theory and Applications and TPC member - International Conference on Materials and Manufacturing.

- **Dr. N. Padmavathy** acts as Reviewer, 2024 Third International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT 2024), Reviewer 3rd IEEE World Conference on Applied Intelligence and Computing (AIC 2024), Reviewer 5th Congress on Intelligent Systems, Reviewer - 5th International Conference on Data Science and Applications, Reviewer - Journal of Reliability and Statistical Studies, Reviewer - Book on "Artificial Intelligence and IoT in Online Education Systems: Monitoring, Assessment, and Evaluation.

- **Dr. Prakash Pareek** Served as a Reviewer for IEEE Journal of Quantum Electronics.

- **Dr. N. Padmavathy** acts as Reviewer for 5th Congress on Intelligent Systems, Reviewer, Journal of Reliability and Statistical Studies, Reviewer, International Conference on Sustainable Computing and Intelligent Systems, Reviewer - 3rd International Conference on Advances in Data-driven Computing and Intelligent Systems, Reviewer -Indonesian Journal of Electrical Engineering and Computer Science, Reviewer - International Conference on Information Technology and Intelligence, Reviewer – SMART 2024, Judge – Internal Hackathon SPARK TANK 2024.

- **Dr. G. Prasanna Kumar** acts as Judge for Internal Hackathon SPARK TANK 2024.

- **Dr. Sugumaran and S. K. Abdul Rahaman** acted as judges for the Paper Presentation event held as part of the Researchers Day-2024, organized by Dept. of ECE, VITB, on 28th August 2024.

- **Dr. K. V. S. H. Gayatri Sarman and Dr. O. Ranga Rao** acted as judges for the Pitch your ideaevent held as part of the Researchers Day-2024, organized by Dept. of ECE, VITB, on 28thAugust 2024.

- **Dr. N. Padmavathy** served as a reviewer for the Journal of Reliability and Statistical Studies, Reviewer for SMART 2024 conference, Reviewer for 3rd International Conference on Advances in Data-driven Computing and Intelligent Systems, Reviewer for Research on materials and innovations in manufacturing technologies, Reviewer for 4th International Conference on Intelligent Vision and Computing (ICIVC 2024), Reviewer for 3rd edition of IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation – IATMSI-2025.

II. Faculty Publications in Journals

- **K. Ramesh Chandra**, Somasekhar Borugadda, Performance evaluation of Non-Orthogonal multiple access system based on outage probability and power consumption, International Journal of communication systems, (Scopus,SCI,WOS).
- P. Ravi Kumar, Viswanadham Ravuri, Tata Balaji, Kiran Kumar Kaveti, **G. Prasanna Kumar**, Elangovan Muniyandy, N. Jaya, Discovery of Liver Malignance using Convolution Neural Network Variant, Journal of Theoretical and Applied Information Technology, 2024, (Scopus).
- Praveena Bai Desavathu, Kadiyala Sudhakar, Balaji Tata Bala Prasanthi Pavuluri, G.N.Sowjanya, **G. Prasanna Kumar**, K. Upendra Chowdary, Efficient Way to Measure the Oxygen in Water Using IOT Devices, Journal of Theoretical and Applied Information Technology, 2024, (Scopus).
- A. Ashok Babu, R. Chandramohan M. V. Ganeswara Rao, **G. Prasanna Kumar**, G. N. Sowjanya, Kurra Upendra Chowdary, Python Based Convolution Neural Network to Detect Leaf Disease -an Implementation, Journal of Theoretical and Applied Information Technology, 2024, (Scopus).
- **N. K. Maurya, P. Pareek**, L. Singh, S. Kumari and J. Ghosh, "Polarization-Insensitive Metasurface-Biosensor for Glycosuria Sensing in Terahertz Regime," 2024 IEEE Wireless Antenna and Microwave Symposium (WAMS), Visakhapatnam, India, 2024, pp. 1-5, doi: 10.1109/WAMS59642.2024.10527823. (Scopus).
- G. C. Ram, S. Yuvaraj, M. Anitha, D. G. Kumar, **N. K. Maurya** and N. Shilpa, "SSP based Coplanar Waveguide Filter for Sensing Applications," 2024 International Conference on Distributed Computing and Optimization Techniques (ICDCOT), Bengaluru, India, 2024, pp. 1-5, doi: 10.1109/ICDCOT61034.2024.10515477. (Scopus).

- **Srinivas Yallapu, S. P, K. R. S, S. S. Karthikeya, N. T and L. S**, "Robust Channel Estimation and Performance Evaluation of OFDM Through AWGN Channel," *2024 2nd International Conference on Device Intelligence, Computing and Communication Technologies (DICCT)*, Dehradun, India, 2024, pp. 514-517, doi: 10.1109/DICCT61038.2024.10533008. (Scopus).

- R. R. P. B. V, M. Prasad, P. Kiran Sree, P. T Satyanarayana Murty, A. S Mallesh and **B. V. V. Satyanarayana**, "An Efficient Cancer Detection Model Using ML and Transfer Learning Techniques," 2024 International Conference on Distributed Computing and Optimization Techniques (ICDCOT), Bengaluru, India, 2024, pp. 1-6, doi: 10.1109/ICDCOT61034.2024.10515383. (Scopus).

- **N. K. Maurya**, R. Krishna, J. Ghosh and S. Subramanian, "Tunable UWB/Narrowband Terahertz Metasurface Absorber Through Controlled Relaxation Time," *2024 IEEE Wireless Antenna and Microwave Symposium (WAMS)*, Visakhapatnam, India, 2024, pp. 1-6, doi: 10.1109/WAMS59642.2024.10527810. (Scopus).

- A. Hariharan a, P. Tamizhdurai , C. Kavitha , Krishna Kumar Yadav , R. Suresh Kumar, **S. Sugumaran**, A. Subramani, P. Sasikumar, M. Vimalan, Ghadah Shukri Albakri, Mohammad Khalid, Mohamed Abbasi, Maha Awjan, Zn/Ni catalyst facilitates the oxidation of ethyl lactate to ethyl pyruvate by selective progressions on mesoporous SBA-15 support by a continuous processing approach, Molecular Catalysis (Scopus, SCI,WOS).

- **R. Orugu, S. Padamata, Y. Kollati, L. Nakka, Y. Nunna and R. Sai Midhilesh Mamidi**, "FPGA Design and Implementation of Approximate Radix-8 Booth Multiplier," 2024 Third International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE), Ballari, India, 2024, pp. 01-06, doi: 10.1109/ICDCECE60827.2024.10548931. (Scopus).

- **K. Ramesh Chandra, T. Harsha Manoj, V. Harshitha, S. Divya, P. Swarnalatha and S. Kareem**, "Enhancing Kidney Stone Diagnosis: A Fusion Approach of FCM and CNN for Precise Detection," 2024 Third International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE), Ballari, India, 2024, pp. 1-5, doi: 10.1109/ICDCECE60827.2024.10549262. (Scopus).

- S. S. M. Bhargav , **A. K. C. Varma, C. Venkateswara Rao, C. V. V. S. Srinivas, R. Orugu and A. R. Shaik**, "Smart Home Garden Monitoring System Based on Internet of Things," 2023 5th International Conference on Advances in Computing, Communication Control and Networking (ICAC3N), Greater Noida, India, 2023, pp. 987-990, doi: 10.1109/ICAC3N60023.2023.10541438. (Scopus).

- L. S. S. P. K. Chodisetti, K. Monisha Sindhu, M. Naveen Kumar Manikanta, K. Hema Venkata Sri Satya, M. Mohan Balaji and **Ch. Venkateswara Rao,** "Smart Watering System for Terrace Garden Using LabVIEW," 2023 5th International Conference on Advances in Computing, Communication Control and Networking (ICAC3N), Greater Noida, India, 2023, pp. 979-982, doi: 10.1109/ICAC3N60023.2023.10541339. (Scopus).

- **Sugumaran S, J. M. Sowmya, M. V. Siva, N. Rishitha, M. K. G. S. Sagar and M. Ganesh,** "IOT Enabled Smart Fuel Station Management System," 2024 2nd International Conference on Networking and Communications (ICNWC), Chennai, India, 2024, pp. 1-5, doi: 10.1109/ICNWC60771.2024.10537573, 2024 (Scopus).

- **N. Padmavathy**, N Suresh Naidu, V. Harshitha, "A Fusion of Histogram Equalization Technique and Fuzzy Logic for Sustained Enhancement of images", IOP Conf. Series: Earth and Environmental Science, International Conference on Smart and Sustainable Energy Systems (ICSSES 2024),2024. (Scopus).

- **Venkata Naga Rani Bandaru, V. S. H. Gayatri Sarman Kaligotla**, Uddarraju Dhana Satya Prathap Varma, Kantheti Prasadaraju and **S. Sugumaran**, "Enhancing Data Security Solutions for Smart Energy Systems in IoT-Enabled Cloud Computing Environments through Lightweight Cryptographic Techniques", IOP Conf. Series: Earth and Environmental Science, International Conference on Smart and Sustainable Energy Systems (ICSSES 2024), 2024. (Scopus).

- **Abdul Rahaman. S. K**, Associate Professor in Department of ECE published a research paper entitled "Performance Evaluation of Machine Learning Models for Multi-class Lung Cancer Detection" in Proceedings of 2024, 4th International Conference on Pervasive Computing and Social Networking (ICPCSN), DOI:10.1109/ICPCSN62568.2024.00071, (Scopus).

- **B. Elisha Raju**, Assistant Professor in Department of ECE published a research paper entitled "Deep Learning based DWT- Bi-LSTM Classifier for Enhanced Cardiovascular Arrhythmia Classification" in International Journal of Electrical and Electronics Research (IJEER), https://doi.org/10.37391/IJEER.120325, (Scopus).

III. PATENT PUBLICATIONS:

Sl. No.	Name(s) of the Faculty involved	Title	Details
1	Mr. Kothapalli Ramesh Chandra	Machine Learning-Based Fraud Detection Device for Financial Transactions	Application No: 6362981 (Design Patent) DOF: 30/04/2024DOP: 14/05/2024

IV. SWAYAM-NPTEL COURSES/FDP:

- **Mr. K. Ramesh Chandra, Mr. B. Elisha Raju, Mr. Ch. V. V. S. Srinivas, Ms. V. Praveena, Mr. Ch. Venkateswara Rao, Mr. Yallapu Srinivas,** have completed NPTEL online FDP on "Introduction To Internet Of Things" IIT Kharagpur during Jan-Apr 2024 (12Weeks).

- **Mrs. G. Srilakshmi** has completed NPTEL online FDP on "Deep learning" IIT Kharagpur during Jan-Apr 2024 (12Weeks).

- **Mr. B. Elisha Raju, Mr. Ch. Venkateswara Rao, Mr. Yallapu Srinivas** have completed NPTEL online FDP on "Cloud Computing" IIT Kharagpur during Jan-Apr 2024 (12Weeks).

- **Mr. K. Ramesh Chandra** has completed NPTEL online FDP on "Foundation of Cloud IoT Edge ML" IIT Kanpur during Feb-Apr 2024 (8 Weeks).

- **Mr. K. Ramesh Chandra** has completed NPTEL online FDP on "Roadmap for patent creation" IIT Kharagpur during Feb-Apr 2024 (8Weeks).

- **Mr. Ch. V. V. S. Srinivas** has completed NPTEL online FDP on "Problem Solving through Programming in C" IIT Kharagpur during Jan-Apr 2024 (12Weeks).

- **Mr. Ch. V. V. S. Srinivas** has completed NPTEL online FDP on "Control Engineering" IIT Madras during Jan-Apr 2024 (12Weeks).

- **Dr. Prakash Pareek, Mr. Ch. Venkateswara Rao** have completed NPTEL online FDP on "Optical Wireless Communications for Beyond 5G Networks and IoT" IIITD and IITM during Jan-Apr 2024 (12Weeks).

- **Mr. Ch. Venkateswara Rao** has completed NPTEL online FDP on "Data Base Management System" IIT Kharagpur during Feb-Apr 2024 (8Weeks).

- **Mr. Ch. Venkateswara Rao** has completed NPTEL online FDP on "Data Base Management System" IIT Kharagpur during Jan-Apr 2024 (12Weeks).

- **Dr. B. V. V. Satyanarayana, Mr. D. Durga Prasad** have completed NPTEL online FDP on "Digital Design with Verilog" IIT Guwahati during Jan-Apr 2024 (12Weeks).

- **Mr. D. Durga Prasad** has completed NPTEL online FDP on "Digital System Design" IIT Madras during Jan-Apr 2024 (12Weeks)

- **Mr. Prudhvi Raj Budumuru** has completed NPTEL online FDP on "Digital Signal Processing and its Applications" IIT Bombay during Jan-Apr 2024 (12Weeks).

- **Mrs. N. Durga Naga Lakshmi** has completed NPTEL online FDP on "Control Engineering" IIT Madras during Jan-Apr 2024 (12Weeks).

- **Dr. N. Padmavathy** has completed NPTEL online FDP on "Leadership and Team Effectiveness" IIT Madras during Jan-Apr 2024 (12Weeks).

- **Dr. N. Padmavathy** has completed NPTEL online FDP on "Quality Design And Control" IIT Madras during Jan-Apr 2024 (12Weeks).

V. Online Course/FDP/Workshop Attended

- **Mr. Ch. V. V. S. Srinivas** has attended an FDP on "Generative AI models and Applications of Machine Learning" organized by SVECW, Bhimavaram during 21-05-2024 to 25-05-2024.

- **Mr. Ch. V. V. S. Srinivas** has attended a workshop "Design of RF & Microwave Circuits and Applications" organized by VNRVJIT, Hyderabad during 03-05-2024 to 04-04-2025

- **Srilakshmi Gubbala and V. Praveena** has attended an FDP on "Advancements in Automobile Engineering for Sustainable Development" organized by SVECW, Bhimavaram during 21-05-2024 to 25-05-2024.

- **Dr. N. Padmavathy and B. Prudhvi Raj** has attended a workshop The beginner's guide to authoring high quality publications organized by Mathworks, India, Date:18-06-2024

- **Dr. N. Padmavathy** has completed online course on MatLab Onramp organized by Mathworks, India, Date:26-06-2024

- **Dr. B. V. V. Satyanarayana** attended an FDP on "MATLAB Applications to the Engineering" organized by BVCITS, Amalapuram during 24/06/2024 to 29/06/2024.

- **Mr. Dommeti Durga Prasad** attended an FDP on "Emerging Trends in Electronic Circuit Design, Signal Processing, and Communication", organized by K L University during 01/07/2024 to 06/07/2024.

- **Mr. K. Kiran** completed online course on Python for Beginners organized by Simplileran skillup, India, during 11-05-2024 to 11-07-2024

- **Mr. Yallapu Srinivas** attended a workshop on "Incorporating Fundamentals and Skills in Curriculum" organized by VEDIC, Hyderabad during 10-07-2024 to 11-07-2024.

- **Dr. S. Sugumaran** attended a workshop on Unlocking the Potential of 6G: Technologies and Challenges, organized by IIIT Delhi during 19-07-2024 to 20-07-2024.

- **Dr. K. V. S. H. G. Sarman** attended a workshop on Embedded Software Training , organized by VEDIC, Aziz Nagar, Hyderabad during 21.06.2024 to 30.06.2024.

- **Dr. Prakash Pareek**, Associate Professor in the Department of ECE attended an FDP on "Photonics Spectrum" organized by NSUT, Delhi during the period 05/08/2024 to 11/08/2024.

- **Mr. K. Ramesh Chandra**, Associate Professor in Department of ECE attended an STTP on "AR Basics Using Unity3D" organized by SVECW during the period 19/08/2024 to 23/08/2024.

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"Serve humanity in your Capacity"