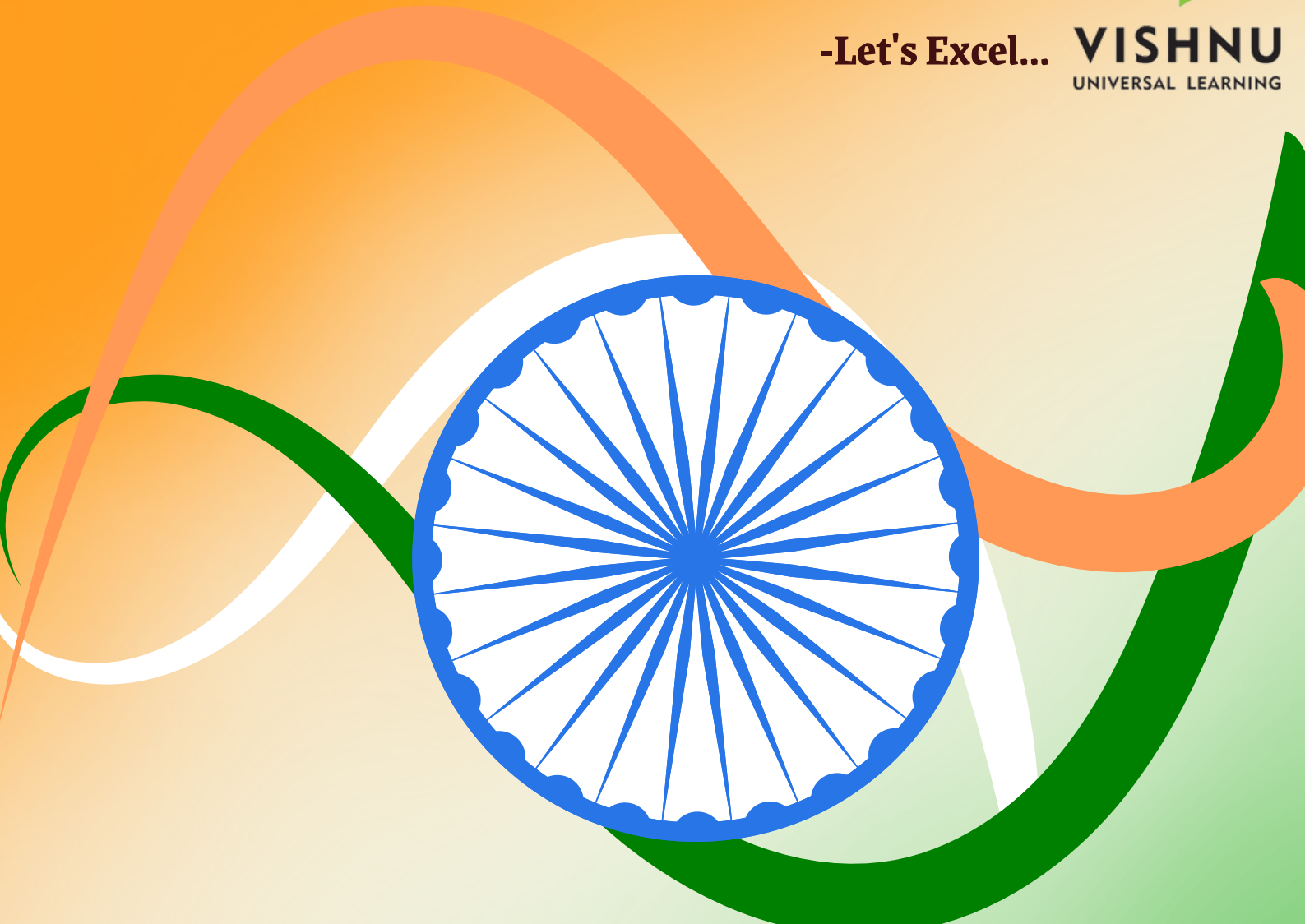# ENCYNOSURE

-Let's Excel...

VISHNU
UNIVERSAL LEARNING

8th Issue

Jan ' 2023

VISHNU INSTITUTE OF TECHNOLOGY(A)

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 Padmabhushan Dr. B. V. Raju, a distinguished industrialist, philanthropist and an eminent 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 amidst 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

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 Ravichandran Rajagopal
Vice 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. K. Aditya Vissam
Secretary, SVES

Along with reaching the pinnacle of academic excellence, we at Vishnu Institute of Technology aim for our students to fill their lives with positivity, hope, and happiness. We motivate them to acquire values and skills that they can rely upon in leading their lives purposefully as individuals and global citizens. In turn, we promise to provide an enabling environment and careful nurturing and honing of their talents through academic and co-curricular explosure. I applaud the efforts of our faculty for their hardwork and also commitment of our parents for having invested their energy and time in helping our students realize their dreams. I wish the Vishnu Institute of Technology to have great success in all its efforts

Dr.D.Suryanarayana
Director & 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.

Prof.K.Srinivas
HOD & Vice Principal

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 full- fledged 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 A.Y 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 seven 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 A.Y 2019-20. Along with UG, one M.Tech course in Digital Electronics and Communication Systems from A.Y 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 Forum and ISTE Student

VALIANT
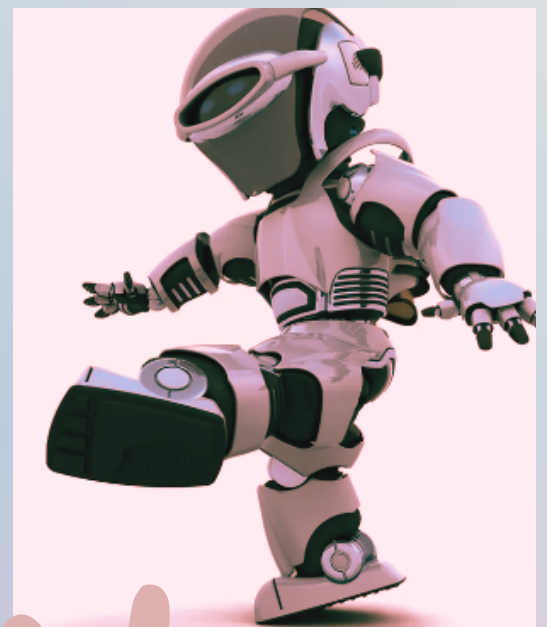
Vishnu's Active Learning in Advanced New Trends

ROBO SOCCER

The objective is to design a manual robot and which can compete on an arena specially designed for robotic soccer match. The event is aimed at testing the Flipping, Kicking, maneuvering skills and the control of the robot.

10 teams participated in this event!

Lalith, Madhavan, Varun from KPRIT won cash prize worth Rs. 5000/- and they were declared as Winners.

The Runners are Sai Vamsi, Arya Vardhan from VIT, Bhimavaram. They won cash prize worth Rs. 3000/-

Faculty Coordinators
Mr.Abdul Rehman Shaik
Associate Professor
Mr . K.Kiran, Assistant Professor
Student Coordinator
Mr. N.Manikanta

Fox Hunt

"Fox Hunt" is a technical event which goes on the lines of traditional English activity of tracking and chasing a fox by trained hound.

As the participants, you should HUNT a hidden radio transmitter (the FOX) by using the given receiver. The technical fun lies in finding the radio transmitter (FOX) which is situated in an undisclosed location by using receiver. We test how good you are in the concepts and fast finding .

Apply your brains in concepts of COMMUNICATION and crack the event!!

This event is held in four rounds. In the first round 10 batches are shortlisted form 19 batches based on the written test, in the second round 5 batches are shortlisted out of 10 batches based on path finding of different locations in the Campus. In the third round 2 batches was selected out of 5 based on the shortest time in finding a hidden FOX (Radio transmitter) and in the final round 1 batch is selected out of 2 batches based on shortest time for finding the Moving FOX.

In this event a total of 37 students had participated from the colleges NITK,NITA ,SAVEETHA ,BVRIT, VIT, ADITYA , RAMA CHANDRA , GUDLAVALLERU

Faculty Coordinators
Mr.M.Dileep, Associate Professor
Mr.M.K.V.Subbareddy
           Assistant Professor
Student Coordinators
Mr.P.Subhash
Ms.B.Latha Sri
Ms.J.Komali

PROJECT EXPO

It is an excellent platform for students to mould their thoughts into an application by exhibiting their innovative projects in a competitive environment where they can prove their talent and creativity. Project Expo is a technical event in which the students showing their innovative projects and developed for solving real time problems.

There are 10 teams participated in this event from many colleges.

Some of the projects are
- Smart Car Parking System Using IOT
- AH Meter
- Bio Insipired Robotic Predatory Bird to Scare Crop Eating Birds in Agricultural Field
- Single Axis Solar Tracker and Panel Protection from Heavy Rain
- Water Management for Paddy Crops
- Universal Smart IOT Based Water Manageable System

Appreciations

1st Prize - K.Lalith, Madhavan & Varun from KPRIET

2nd Prize - N.Harshini & M.Nikshipta from BVRIT

Faculty Co-ordinators

Dr.J.Doondi Kumar,Associate Professor

Mr.Naveen Kumar Mourya

Assistant Professor

Student Coordinators

Mr.N.Sri Sai Teja

Ms.N.L.Alekhya

Ms.N.Rishitha

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DRONE VOYAGE

Drone voyage is a technical sport event using Drones which follows specifications and also to enhance the Self confidence and the Technical skills of the students towards innovative designs.

The contestants are judged based on 3 rounds:

Racing round
Static round
Music round

Cash prize worth

45000/-

19 teams from different institutions were a part of this event which made this really challenging!

AWARDS:
● The highest scoring quad-copter is declared as CHAMPION
● The quad-copter which challenges the best is declared as VOYAGER.
● Third winner is declared as RACER.
● Best Society PILOT.

Winners
●1st price - Lukhman (batch) :IGNOU Indhira Gandhi National Open University kerala
●2nd price-Madhavan (batch) : KPR institute of engineering and technology
●3rd price -Seetha rama swami (batch)
●Vishnu Society Best Performer-K.Gowtham surya chandra .

Faculty Coordinators
1.Mr.K.V.S.H.Gayatri Sarman
               Assistant Professor
2.Mr.B.Elisha Raju, Assistant Professor
Student Coordinators
1.Mr.M.Pavan
2.Ms.K.Smrini

Circuit Debugging

Circuit debugging requires a clear understanding of the circuit diagram and how it works. Knowing the design and the circuit operation are important assets while performing circuit debugging. The designer of the circuit that needs debugging is therefore in the best position to successfully debug the circuit. 21 teams have been a part of this event.

Appreciations
1st & 2nd Prizes won by the students of BVRIT Narsapur
Cash prize worth 2000/- and 1000/-

Faculty Coordinators
Mr. K. Ramesh Chandra, Associate Professor
Mr. CH. Venkateshwara Rao, Assistant Professor
Student Coordinators
Mr.K. Raghuram
Mr.Shaik. Basha
Mr.S. Manikanta
Mr.T. Deeskshit

LabVIEW Whizz

Graphical Programming Technique is a technique where VISUAL BLOCK Connections are used to code instead of text which makes it easy for non-coders to implement the algorithms.LabVIEW(Laboratory Virtual Instrument Engineering Workbench) is the first implementation of graphical programming to date, it continues to be the dominant graphical programming implementation. It is an excellent platform for students to show their design skills in LabVIEW.

* Appreciations*
1st Prize
A.Rajappa & P.Rohith kumar
2nd Prize
T.Joshitha & U.Avanthika Sony

Faculty Coordinators
Dr.G.PrasannaKumar, Professor
Mr.D.DurgaPrasad, Assistant Professor
Student Coordinators
Mr.D.Narasimha Sai
Mr.Ch.Dileep Raj
Mr.D.Harshavardhan

R & D WORKS

I. Acted as Resource Person:

1. **Dr. N. Padmavathy** Served as a Reviewer in EAI Endorsed Transactions on Mobile Communications and Applications and ICDATE.

2. **Dr. N. Padmavathy** Served as a Judge for Project Expo, Art Gallery in VALIANT 2022.

3. **Dr. S. Sugumaran** Served as a Research Proposal Reviewer, Advisory Committee Member in ICIETSE, Reviewer in Physical Communication (ELSEVIER), Reviewer in Journal of Nano electronics and Opto electronics (SCI Journal).

4. **Dr. A. Prabhakara Rao** Served as a Reviewer in the SCI Indexed Journal – Scientific Programming published by HINDAWI and 7th International Conference on Computer Vision and Image Processing (CVIP 2022) organized by Visvesvaraya National Institute of Technology,Nagpur, India.
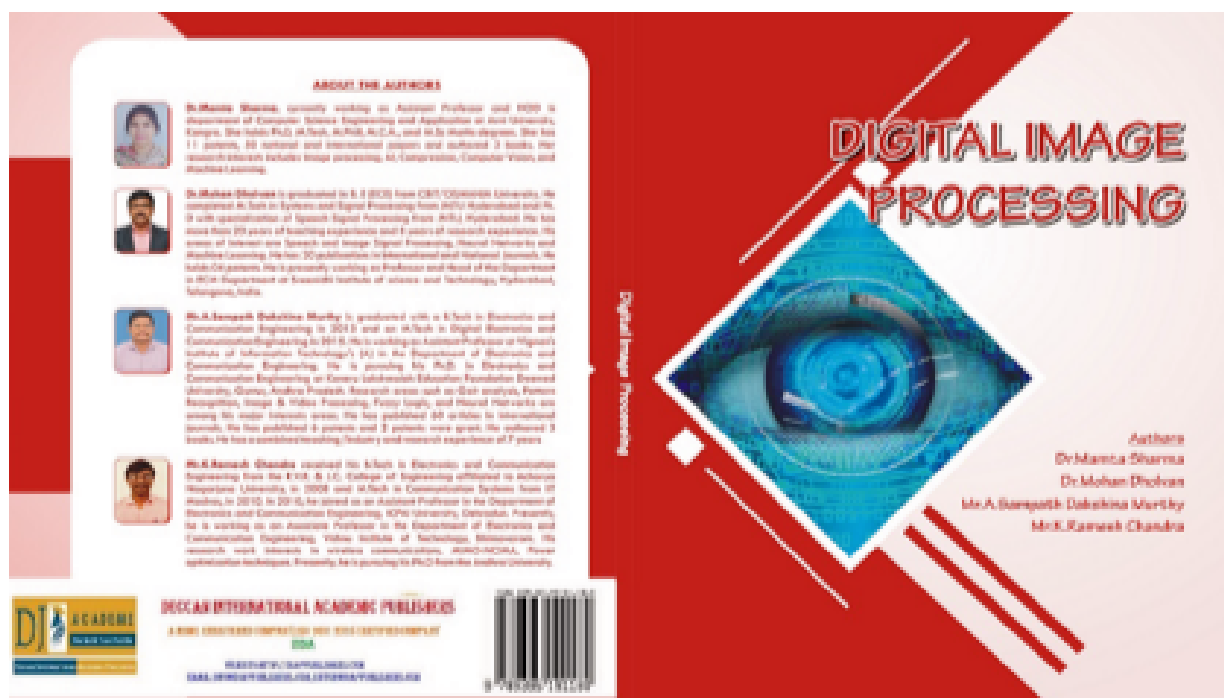
II. Faculty Publications in Journals/ Conferences:

1. S.K.Raghuwanshi, A.Srivastava, V. Palodiya and **Prakash Pareek**; "Generation of a high chirp rate microwave signal by using external optical modulation technique for radar application: theory and experiment," Optical and Quantum Electronics, Vol.55, Art. No.5, pp. 1-14, DOI: https://doi.org/10.1007/s11082-022-04221-6 (SCI)

2. G. Shine Let,G. Josemin Bala, C. Benin Pratap, **Doondi Kumar Janapala** & **Talluri Kezia**; "Concentric semi-circular ring loaded multi-band antenna for wireless applications, Concentric semi-circular ring loaded multi-band antenna for wireless applications," Analog Integr Circ Sig Process (2022). https://doi.org/10.1007/s10470-022-02123-x (SCI, Scopus)

3. **K.V.S.H. Gayatri Sarman**, Tenneti Madhu, Mallikarjuna Prasad; "Fault Diagnosis in the Brushless Direct Current Drive Using Hybrid Machine Learning Models," ECTI Transactions on Electrical Engineering, Electronics and Communications, Vol. 20 No. 3 (2022): Regular Issue (October 2022) https://doi.org/10.37936/ecti-eec.2022203.247517 (Scopus)

4. **N Padmavathy** and **Ch Venkateswara Rao**, "Effect of Undersea Parameters on Reliability of Underwater Acoustic Sensor Network in Shallow Water," IOP Conference Series: Materials Science and Engineering, pp. 1-14, https://iopscience.iop.org/article/10.1088/1757-899X/1272/1/012011,2022 (WOS).

5. **S. Sugumaran**, G. Sampath, G. Deivasikamani, **N. K. Maurya** and **CH. V. V. S. Srinivas**, "FSO (Free Space Optics) Application for Various Weather Conditions and Wavelengths," 2022 IEEE 2nd Mysore Sub Section International Conference (MysuruCon),2022,pp.16,https://doi.org/10.1109/MysuruCon55714.2022.9972385

6. **S. Sugumaran**, **N. K. Maurya** and B. Gudivada, "Design and Analysis of Triband Optical Nanoantenna," 2022 IEEE 2nd Mysore Sub Section International Conference (MysuruCon), 2022, pp.1-4, https://doi.org/10.1109/MysuruCon55714.2022.9972578

7. N. Gupta, H. K. Gupta, V. Pathak and **P. Pareek**, "Implementation of Deep Learning Based Compression Technique and Comparative Analysis With Conventional Methodologies," 2022 13th International Conference on Computing Communication and Networking Technologies (ICCCNT), 2022, pp. 1-6, https://doi.org/10.1109/ICCCNT54827.2022.9984363

8. Venkatrao, K., Sriramam, Y.S.S., Suguna, N., Tirumani, N.P., **Ramakrishna Ch.**, Murali Krishna, Ch. (2023). "Modern Four-Port MIMO Antenna Design Using Bended Curves for 5G Communications," International Conference on Innovative Computing and Communications. Lecture Notes in Networks and Systems, Vol 492. Springer, Singapore. https://doi.org/10.1007/978-981-19-3679-1_59

IV. Faculty Textbook Publications:

Mr. K. Ramesh Chandra, Associate Professor has authored a Textbook titled "Digital Image Processing" in collaboration with Deccan International Academic Publishers with ISBN: 978-93-95191-18-0.

V. Faculty Achievements:

Ph.D Awarded
Doctor of Philosophy has been awarded to Mr. Naveen Kumar Maurya from NIT-Patna on 24-12-2022 for his research entitled "Design of Compact Multiband MIMO Antennas for Modern Wireless Terminals".

CONGRATULATIONS

Recognized Swayam-NPTEL Motivated Learners by IIT-Madras

Dr. G. Prasanna Kumar
Professor

Dr. B V V Satyanarayana
Associate Professor

Mr. K. Ramesh Chandra
Associate Professor

CONGRATULATIONS

Recognized Swayam-NPTEL Domain Expert's, Evangelist and Believer's

Dr. B V V Satyanarayana
Associate Professor
Domain Expert in VLSI Design

Mr. K. Ramesh Chandra
Associate Professor
Domain Expert in Faculty Domain-Advanced

VI. Swayam-NPTEL Courses/FDP:

1. **Dr. G. Prasanna Kumar** has completed NPTEL online courses (FDP's) on "**Introduction to Machine learning**" and "**Applied Electromagnetics for Engineers**".

2. **Dr. B V V Satyanarayana** has completed NPTEL online courses on "**Basic Electric Circuits**" and "**Introduction to semiconductor devices**".

3. **Mr. K. Ramesh Chandra** has completed NPTEL online courses (FDP's) on "**Introduction to Machine Learning**", "**Accreditation and Outcome Based Learning**" and "**Development Research Methods**".

VII. FDP/Workshop/Webinar Attended:

1. **Dr. N. Padmavathy** has attended FDP on "**Deep Learning Algorithms and Applications in Engineering and Sciences**" organized by ITC NITW, from 28.11.2022 to 03.12.2022.

2. **Dr. S. Sugumaran** has attended one-day workshop on "**Millimeter Wave Radar**" organized by VIT-Vellore on 09.11.2022.

3. **Dr. A. Prabhakara Rao** has attended FDP on "**Cloud Computing**" organized by Tech Saksham Program from 22.11.2022 to 26.11.2022.

4. **Dr. B V V Satayanarayana** has attended two days FDP on "**Hands on Session on open source VLSI tools**" organized by VIT-AP University, from 20.12.2022 to 21.12.2022.

5. **Dr. N. Padmavathy** has attended webinar on "**Challenges and Opportunities for reliability Engineering in current evolving Industry needs**" organized by Subir Chowdhury School of Quality and Reliability, IIT Kharagpur on 26.11.2022.

VIII. Patent Publication:

1. **Dr. S. Sugumaran** "**A wearable pregnancy monitoring apparatus to collect physiological parameters**", Application Number: 202241064840, DOF: 12.11.2022, DOP: 18.11.2022.

NEW YEAR CELEBRATIONS

"The beginning is the most important part of the work"

On the occasion of New year, the faculty of ECE department felicitated our honarable principal and vice-principal of VIT with wreath.

A National level Technical Symposium organised by Vishnu Institute of Technology with various activities such as ...

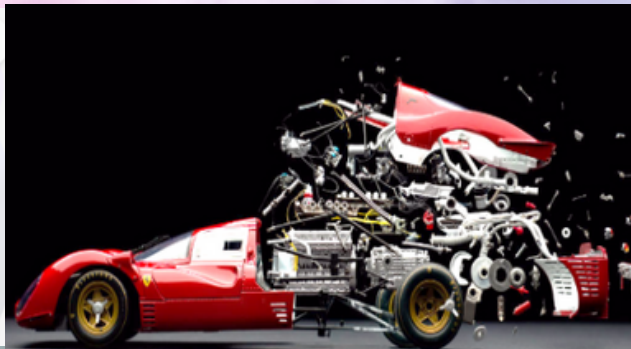Blind coding, Jumbled code, Datathon, Virtual deep racer league, Fiksu car, Treasure hunt, Robo race, Automobile modeling, Cad Mania, Sethu Nirmaan, Anveshanam.

VALIANT

Padma Bhushan Dr.B.V.Raju
&
Smt. B. Seetha Devi

"Serve humanity in your Capacity"