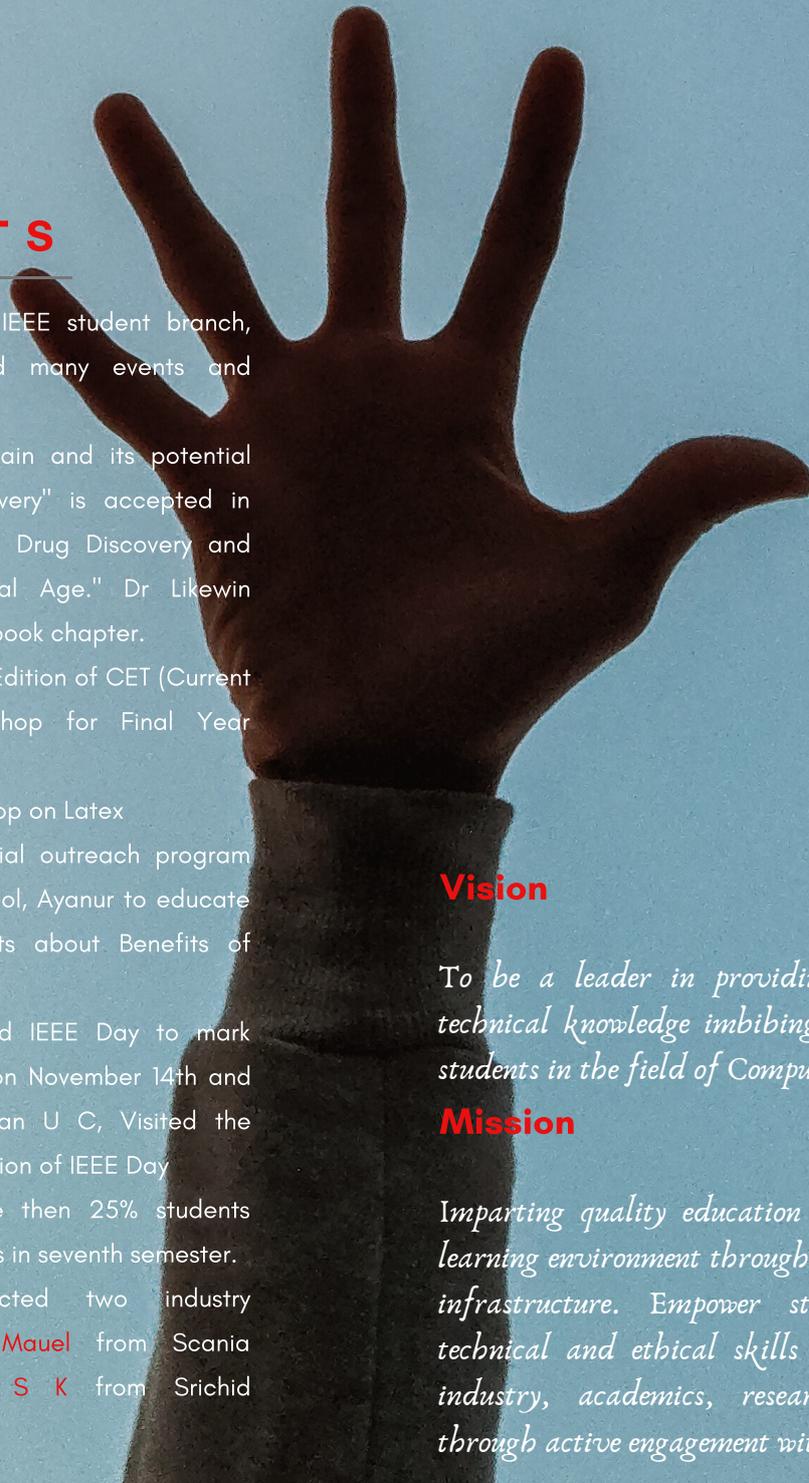## HIGHLIGHTS

- With the establishment of IEEE student branch, department has organized many events and workshops.
- An abstract titled "Blockchain and its potential applications in drug discovery" is accepted in "Handbook of Research on Drug Discovery and Development in the Digital Age." Dr Likewin Thomas is co-authoring this book chapter.
- Department organized 2nd Edition of CET (Current Engineering Trends) Workshop for Final Year Students
- Organized Hands-on workshop on Latex
- Department conducted social outreach program by visiting Government School, Ayanur to educate the higher primary students about Benefits of Computer Science.
- Department also celebrated IEEE Day to mark Children's Day celebration on November 14th and IEEE MSS Chair Dr Niranjan U C, Visited the campus to mark the celebration of IEEE Day
- Department achieved more then 25% students placed in reputed companies in seventh semester.
- Department also conducted two industry interaction program: Mr Mauel from Scania Sweden and Mr Surjith S K from Srichid Technologies, Bangalore

Vision

To be a leader in providing education with skilled technical knowledge imbibing professional ethics to the students in the field of Computer Science and Engineering

Mission

Imparting quality education to students by ensuring a learning environment through qualified faculty and good infrastructure. Empower students to attain strong technical and ethical skills for a successful career in industry, academics, research and entrepreneurship through active engagement with all the stakeholders.

Vibrant CSE Department

PESITM, SHIVAMOGGA

Computer Science & Engineering department imparts high quality technical education to its students with the help of its state of the art computing facilities and highly qualified teaching and supporting staff. It keeps pace with the latest technological developments and thus helps students stand in good stead in their professional life.
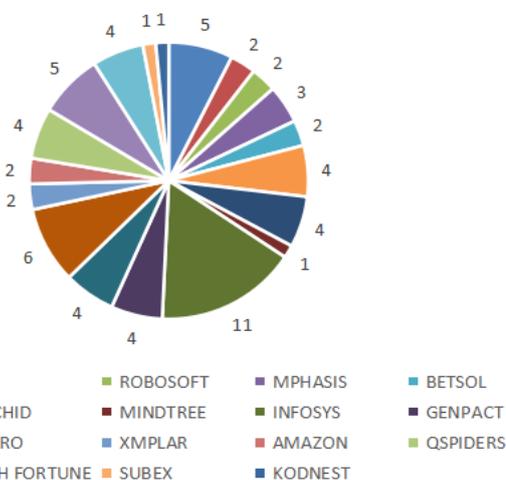
PSOs

PSO1: Interpret the fundamental concepts and methodologies of computer science

PSO2: Apply the mathematical concepts to crack problems using suitable mathematical analysis, data structures and algorithms.

PSO3: Develop ability to grasp the software development lifecycle and methodologies of software systems. Possess competent skills and knowledge of software design process. Familiarity and practical proficiency with a broad area of programming concepts and provide new ideas and innovations towards research.

Dept of CSE Placement

STUDENTS ACHIVEMENTS

- 67 offers are offered out of 120 Students among them 11 Students had multiple offers with maximum 3 offers offered. Highest package offered was 4 Lakh.
- Aksahtha L S and Himanshu won 2nd Prize in an event named "Installation" conducted in VTU Youth Fest at SDM College of Engineering, Dharwad during 6th to 9th November 2019.

- Final year students are involved societal projects like: Developing EHR model for hospital management, Home automation and security, online attandance system and identifying class attention, online leagl system etc.,
- Harshitha B U of final year participated in "Kannada Kogole" aired in Colors Channel.

Department is Backed up by IEEE Student branch and will be organizing a National Conference during Feb 2020

I welcome all the students to the Department of Computer Science and Engineering. Computer Science and Engineering is the essence of today's world. We are committed to provide not only the technical education to our students but also the leadership qualities through which they can create employment to others.

PESITM is growing and is establishing its legacy as academic excellence. The sole vision of the department is to produce good engineers with human values and Indian ethos. We always focus on the holistic development of the students by a combination of both curricular and extracurricular activities. We believe that to develop a tender mind, we need to go beyond classroom teaching and we believe to make our students' industry ready.

The excellent infrastructure, teaching faculty of the best kind of the Department ensure quality education and a bright future to our students. The Department of CSE is striving hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence and provides a platform for the students to achieve their career goals.

Dr. SN Jagadeesha

WALL OF HONOR

- The department of Computer Science and Engineering submitted project proposals to AICTE and VGST in the following fields: Bio-metric security in mobile, vehicle identification using QR code, drones in arecanut farming, Future internet lab, SC-ST development , Service Oriented in Internet, Attacks in IoT, Smart car, Smart security for women, EHR based clinical decision, Facial emotion, Facial attendance system.
- A proposal titles "End-to-End Verifiable and Preferential Strategy based Electronic Voting System using Delegated Proof of Stake on Block-Chain" was selected by TEQIP Competitive Research Grant and a grant of 2,00,000/- was sanctioned. Dr Likewin Thomas is the Co-investigator for this project.

DR U C NIRANJAN, Chair IEEE MSSvisited the campus on occassion of IEEE DAY

Social Outreach Program

LATEX

IEEE Student branch had organized 5 days (2 hours per day) hands-on workshop on latex for final year students of all streams of engineering during 16-20th September, 2019. Around 100 students actively participated in this event.

OBJECTIVE OF WORKSHOP

To expose the student in emerging technologies in the areas of Documentary Designing System. Participants will develop a basic understanding of how to make a documentary or how to work with the designing techniques. This workshop introduces fundamental concept of making documentary more suitable and attractive and at the greatest ease.

TOPICS COVERED

- What is LaTex?
- Why should we use Latex?
- Latex Installation and Environment Setup.
- Resume Writing
- Report Writing and Paper Writing
- Presentation Preparation

ABOUT THE WORKSHOP

LaTeX is a document preparation system. LaTeX is a high-quality type setting system; it includes features designed for the production of technical and scientific documentation. LaTeX is available as free software. The workshop primarily meant for all researches in various discipline. Any researchers need to bring out the quality of research work by publisher his or her papers in peer reviewed journals. Most of the peer reviewed journals require the paper to be submitted in Latex format. LaTeX provides a facility for portable document format (pdf) and post script (ps) type of output.

IEEE MSS Sponsored
2ND EDITION OF CET
12-26th October, 2019

About CET

Current Engineering Trends (CET) is a series of 2 days hands-on workshop on 4 emerging trends: IOT, Machine Learning, Image Processing and Cloud computing. Industry experts and researchers are invited to deliver and handle the sessions. This is 2nd edition and the first edition was organised during March to April 2019. Students should attend their area of researching (final year project) and they are also invited to attend other areas.

Workshop Coverage

- **IOT using Cloud,** Oct 12-13, 2019
- **Image Processing,** Oct 12-13, 2019
- **IOT,** Oct 20-21, 2019
- **Machine Learning**, Oct 22 and 26, 2019

IOT USING CLOUD
OCT 12-13, 2019

The objective of this workshop was to provide a brief idea to the beginners about Internetof Things and make them understand how different techniques are implemented in Internet of Things domain. It has helped final year students who were working on their projects to overcome the difficulty that they were facing during implementation of the project.

ABOUT THE SPEAKER

Dr. Y V Srinivasa Murthy is an Assistant Professor (Dept. of CSE) in Vellore Institute of Technology (VIT), Vellore, Tamilnadu, Completed his PhD from NITK, Surathkal and has 08 years of working experience, He had published 15+ journals and guided more than 30+ projects, He also Conducted several Workshops, He was Assistant Lecturer at National Institute of Technology Karnataka(NITK), Mangalore,

DAY 1

On the 1st day 1st session was completely about the basics of IOT and how to work on IOT project i.e., Arduino tool and working with Arduino tool. A project was started with NODE MCU i.e., ESP8266 WIFI driver. Before started working on Arduino the resource person has taught how to setup the Arduino IDE and what are all the necessary libraries that are needed to install in order to run the programs. The day was ended by making set up of Bluetooth based sensor and we just did some of the basic programming and load them to Arduino. Then the resource person provided us some knowledge about raspberry pi also.

DAY 2

The second day was mainly concentrated to do the project on IOT using cloud. The day begins with setting up of DHT program by setting up appropriate hardware connection using DHT sensor and calculated the current temperature and humidity and the values were displayed on LED screen. After displaying the relevant data on LED the resource person has also taught us how to store the data into cloud. We have created and registered into amazon web server cloud, created buckets to store the sensor data. Finally the day ended with the resource person providing some knowledge to the students about how to choose a good problem statement and how to work on it, which was useful to the students.

IMAGE PROCESSING
OCT 12-13, 2019

ABOUT THE SPEAKER

Mr. Chetan Sagarnal is an Assistant Professor (Dept. of ECE) in KLE Institute of Technology, completed his BE in Electronics and communication, M.Tech in Digital communication and Networking. He has conducted workshops on "Machine Learning using python" at various colleges and given talk on machine learning in startup companies. He has guided more than 40+ projects in which some of the projects are selected for KSCST, Motorola, etc. Presently he has published 5 national and international conference papers.

DAY 1

On the first day of Image Processing Workshop speaker delivered some basic definations and some examples of real time applications such as computer vision, remote sensing, feature extraction, face detection, forecasting, optical character recognition, finger-print detection, optical sorting, argument reality, microscope imaging. various problem statements was taken into account and solutions were shown by implementing algorithms which can be applied on images in order to obtain animation. Finally the day was ended with analysis of pixel resolution.

DAY 2

In the forenoon session, the speaker dicussed about image enhancement techniques such as Histogram equalization, Gamma correction, Contrast enhancement, Retinex model which includes single scale retinex model and multi scale retinex model. In the afternoon session there was a great deal of explanation about projects and there was interaction which gave rise to innovative ideas.

IOT
OCT 20-21, 2019

The main objective of this workshop was to give a brief idea for the beginners about the IoT and make them understand how actually it is used to work and how to implement IoT in real world. Another aim of this workshop is to help the students, who were doing project on IoT and to get a brief idea that how their project can be improved.

ABOUT THE SPEAKER

Dr. Raghavendra S was one of the most famous person and Associative professor from Department of Computer Science and Engineering, Vivekananda College of Engineering and Technology, Puttur. His areas of interest are Cloud computing, Big Data, IoT. He is also one of the IEEE member. He has over 6 months experience in Industry and about 6 years Research experience. He published 8 International Journals and 7 International conferences and 3 National conferences.

MACHINE LEARNING
OCT 22 & 26, 2019

Because of new computing technologies, machine learning today is not like machine learning of the past. It was born from pattern recognition and the theory that computers can learn without being programmed to perform specific tasks; researchers interested in artificial intelligence wanted to see if computers could learn from data. The iterative aspect of machine learning is important because as models are exposed to new data, they are able to independently adapt. They learn from previous computations to produce reliable, repeatable decisions and results. It's a science that's not new – but one that has gained fresh momentum.

ABOUT THE SPEAKER

Dr. Manoj Kumar M. V. from Nitte Meenaskshi Institute of Technology, Bengaluru . He is has a lot of experience in the domain and has done numerous research and has published various papers in reputed journals.
Mr Manjunath Mulimani is a research scholar (PHD) at the National Institute of technology Karnataka, Suratkal. He is has a lot of experience in the domain and has done numerous research and has published various papers in reputed journals.

ABOUT THE WORKSHOP

The workshop basically focused on the basics of machine learning where the speaker went through all the basic statistical formulas which are relevant to the machine learning algorithms where concepts such as mean , median etc where discussed. This included the discussion of the importance and requirement of machine learning in the field of machine learning and the hierarchies where also discussed. The session continued with discussion of the different algorithms in machine learning and their classifications like supervised learning , unsupervised , re-enforced learning and semi- supervised learning algorithms were also discussed.

COMPUTER & MOBILE AWARENESS TO GOVT SCHOOL, AYANUR, SHIVAMOGGA

NOV 6TH, 2019

OBJECTIVE OF THE PROGRAM

1. To understand the technical awareness of rural students.
2. To establish or strengthen training programme that meets the needs of environment and development with ensured access to training opportunities, regardless of social status, age, gender, race or religion.
3. To Apply Ethical Principles and commit to professional ethics and responsibilities and norms of the engineering practice .
4. Demonstrate knowledge and understanding of the engineering management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi-disciplinary environments.

TechnoFun- A thought of creativity

NOVEMBER 13TH, 2019

TechnoFun is a technical competition hosted on 12 Nov 2019 at PESITM SHIMOGA by PESITM Shimoga IEEE Bangalore and IEEE Mangalore sub-section. The event is a technical hackathon where students participate in various events to showcase their talent and ability to solve and innovate various solutions to problems as well as their tech-savvy personality. The main event consisted of major 4 divisions of competition which were Logo Making, Coding challenge, Quiz, Surprise Round

Institute celebrated IEEE Day on 14th November. Prof Niranjan U C inaugurated the day with the inaugural talk on benefits of becoming IEEE

Industry Institute interaction

Talk on Software Architecturing by Mr. Manual, Seniro Architect from Scania, Sweden on 20th November, 2019

Mr. Manual, had vistised and interacted with our students on November 20th, 2019. He opened gate and explored our students to diffrerent areas they can try. He explained various models in software engineering and how they are applied in real life.

Talk on how to Prepare for Industry Challenge by Mr. Surjith S K senior sofrware engineer at Srichid Technologies on 24th October, 2019

Mr. Surjith S K our student of 2018 Batch inteeracted with our students and explained the industry challenges and showed how they have to be prepared. He explained India produces a good number of engineers. However, engineering talent is largely focused on IT, not on research and innovation. For AI employability, companies need professionals with a strong research mindset." Intel, the global chip maker, has shown intent by announcing that it will not depend on colleges but will train 15,000 engineers in-house in subjects around ML. It's not that India has no talent.

ACHIEVEMENTS & PUBLICATIONS

- Department had sent various project proposal for funding to VGST and AICTE
- A proposal titles "End-to-End Verifiable and Preferential Strategy based Electronic Voting System using Delegated Proof of Stake on Block-Chain" was selected by TEQIP Competitive Research Grant and a grant of 2,00,000/- was sanctioned. Dr Likewin Thomas is the Co-investigator for this project.
- An abstract titled "Blockchain and its potential applications in drug discovery" is accepted in "Handbook of Research on Drug Discovery and Development in the Digital Age." Dr Likewin Thomas is co-authoring this book chapter.
- Around 50 students are already placed in companies like TCS, Wipro, Infosys, Mindtree, Global Edge, Robosoft, Betsol, Mphasis, Genpact, Scrichid, ABC and many more. Few students have even 4 offers in hand. With this we have reached 40% mark in placement.

CALL FOR NEWSLETTER

- Articles for future edition are important.
- We would like to invite everybody to submit a short
- story/article/announcement that can fit in the following structure:
- News items and announcements - (1/2 Page)
- Short, topical, news oriented technical/ non-technical topics. (3/4 Page)
- Paintings, sketches, comics, poems, dag-writings, short stories etc. (1/2 Page)
- Major and minor technical articles are also accepted. (1/2 Page)
- Jokes, Punch dialogues, quotes of your own could be included. (1/4 Page)
- All of above said matters could be accepted in English or in Kannada

EDITORIAL TEAM

Dr. Jagadeesha S N., Dr. Likewin Thomas, Mr. Raghavendra K, Mr. Ranjan V, Hitesh Kumar , Ajay Shankar B P, Deepak, Akshatha L S, Hifzia Noorain, Ajay