

INSIDER

Newsletter from the
Department of
Information Science
and Engineering.



INSIDER₂₀₁₆₋₂₀₁₇



“Insiders often have an insight that an outsider doesn't quite have.”

“If you believe in yourself and have dedication and pride - and never quit, you'll be a winner. The price of victory is high but so are the rewards.”

P.E.S. COLLEGE OF ENGINEERING



VISION

PESCE shall be a leading institution imparting quality engineering and management education developing creative and socially responsible professionals.

MISSION

- **Provide state of the art infrastructure, motivate the faculty to be proficient in their field of specialization and adopt best teaching-learning practices.**
- **Impart engineering and managerial skills through competent and committed faculty using outcome based educational curriculum**
- **Inculcate professional ethics, leadership qualities and entrepreneurial skills to meet the societal needs.**
- **Promote research, product development and industry-institution interaction.**

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING



VISION

The department strives to equip our graduates with Knowledge and Skills to contribute significantly to Information Science & Engineering and enhance quality research for the benefit of society.

MISSION

- To provide students with state of art facilities and tools of Information Science & Engineering to become productive, global citizens and life-long learners.
- To prepare students for careers in IT industry, Higher education and Research.
- To inculcate leadership qualities among students to make them competent Information Science & Engineering professionals or entrepreneurs.

MESSAGE FROM HEAD OF THE DEPARTMENT



Information science is an interdisciplinary field primarily concerned with the analysis, collection, classification, manipulation, storage, retrieval, movement, dissemination, and protection of information. Information science is one of the important branches of PESCE, Mandya. The Department of Information science and Engineering takes pride in producing quality engineers over the past 17 years. The credit for all the flowery results goes to the highly motivating staff, from whom all students draw inspiration. The focus of the department is to provide students with in-depth knowledge in the field of computer and information technology through the following two academic programs. Our department faculty remains a constant source of inspiration to students in order to achieve outstanding results and excellent placement records. The department has taken in innovative teaching learning process to sharpen the young minds. We are proud to produce the first PhD student in our college. I thank the entire faculty for their yeomen service.

It gives me immense pleasure to express my sense of appreciation for having brought out the annual newsletter “INSIDER” of Department of Information Science & Engineering.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

Graduates of the program will be able to:

1. Establish a productive Information Science & Engineering career in industry, government or academia.
2. Interact with their peers in other disciplines by exhibiting professionalism and team work to contribute to the economic growth of the country.
3. Promote the development of innovative systems and solutions to the problems in Information Science using hardware and software integration.
4. Pursue higher studies in Engineering, Management or Research.

PROGRAM SPECIFIC OUTCOMES (PSOs)

1. Analyze, design, develop and test the principles of System software and Database concepts for computer-based systems.
2. Develop computer communication systems and applications for Information security.
- 3 Apply the knowledge of Information Science and Engineering to solve any software and hardware related problems and to organize, manage and monitor IT Infrastructure.

PROGRAM OUTCOMES (PO)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

GNU LINUX USER GROUP

The current GLUG team is under the valuable guidance of Free Software Movement Karnataka (FSMK). Of the 3 years in existence, we have carried out splendid workshops on java, android, shell scripting and many more. The notables once being: Swataha – Drupal, Installation Fest, Shell-Scripting Program. They have established a religious following of Linux users, developers and enthusiastic.

The force behind such massive success is a group of about 30 dedicated Execoms.

Event undertaken by glug:

Orientation Day

The GLUG-PESCE chapter had organized the orientation function on 3rd October, 2016 in TEQUIP cell-2. In the function, Dr.Minavathi, HOD of ISE, Padma, HOD OF CSE, had graced the occasion as the chief guest.

Shreyas (6th sem, ISE) welcomed the gathering with an insightful speech. Akshay (6th sem, ISE) then initiated the proceedings and invited the dignitaries to light the ceremonial lamp. An informative video was played which triggered the interest of the crowd. Thereafter, Amogh presented the ideology of Free Software. He gave a detailed introduction to the topic and helped the crowd understand the concept with an interesting example. The audience were attentive and throwing questions which were efficiently addressed by Amogh. At the end of his talk, he also spoke about the benefits of joining GLUG-PESCE.

Finally, Sindhu (6th sem, CSE) gave the vote of thanks, extending gratitude towards the guest, volunteers, and the audience. The volunteer team was exhausted, but elated at the end of it all, delighted at having made a significant contribution. Our efforts did pay off as many students showed their interest at joining the organization.



Java Chat application

A session was conducted on Java applications by GLUG-PESCE. It was taken by Nootan on 6th of November 2016. The session was about developing a chat application using java as a platform. This interesting and fun session was attended by 35 students. We helped them install Java Netbeans and create their own hotspot at first. It was followed by explanation of the Java code for the application by Nootan. He then taught how to create our own chat application. We also shared the code and other essentials to create an app via email for the students as a reference.



Introduction to OSS and Free Software

On 9th February 2017, an introductory session on open source and free software was conducted. The session was lead by Anup Pravin, alumni of PESCE and an FSMK member. It was an interactive session with participation of 50 members. Anup introduced many free software which can be alternative for the proprietary software being widely used. He also displayed working of hardware components such as Arduino and Raspberry Pi.

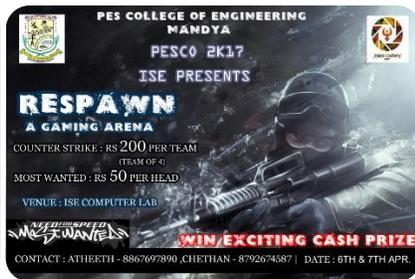
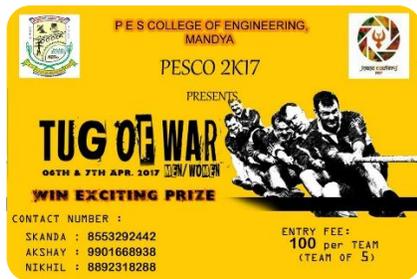


DEPARTMENT'S CONTRIBUTION TO THE PESCO-2K17 EVENT

The staff and students of the department took active participation in making PESCO-2K17 a glorious success. The key contributions from the department were - Respawn, FTC Trivia, Tug-of-war.

Respawn bought a huge crowd of gaming enthusiasts, keep to execute their best gameplay. The event created a huge noise socially. Attracting pro players from around Mysore and Bangalore. The gameplay was tense, formidable and reaping ultimate fun.

FTC Trivia being multileveled quiz on Films, Television and Cricket covered people from all over the spectrum with varying taste and thirst for entertainment. The event saw the participation of not only the students but also the staff who had this to say, "The most interesting event this year."



CULTURAL ACTIVITIES

ISE is the proud host of Ganesh Chaturti since the inception of the Department. This celebration of joy brings people from all cast, creed, belief and faith. Celebration days span over 7 days. Each day marked with special tribute and offering to the almighty. These activities starting from 'prathistapane' of the idol to the 'visherjane' is joyous, enriching and spiritually uplifting. This worship on one supreme soul bring within it a sense if community, brotherhood and comradely.



OPEN SOURCE AND TECHNOLOGIES

Robotic technologies deal with the design and construction of robots and computer systems that aid in their control and information processing to provide the necessary motion. Height adjustable standing desk is one of the items that can be categorized as an example of robotic technologies because an individual can adjust the height of the desk to meet their requirements. Several open source robotic projects have been put in place such as hardware, software projects and robotic simulators. The technology also incorporates the use of actuators and desk lifts. Open source robotics aids in changing the manner in which the world interacts with individuals. The world of robotic technology is, therefore, making great advancements that have led to the development of unimaginable items such as self-driven cars, drones and other technologies made to clean the houses. The open source projects make it possible for anyone to enjoy the technology of robots without having to be an electrical engineer because their use is fun.

In regard to hardware projects, a robot is mainly physical. Thus, its hardware and code require licensing. However, different open hardware platforms can enable individuals to start their projects such as Sparki. The platform is designed to be affordable as an introductory to robots for students in the elementary to adult age. It comes along with an accelerometer, compass, line-follower, light sensor, infrared communications and a distance sensor. In software projects, it is evident that robots require commands for the master or even generating its own in order to be able to function. Among the open source software projects of robots is LeJOS which makes it easy for the user to program their robot using Java language. Similarly, Rock is another software project designed with several drivers of already existing projects. ROS is also available in the market as an operating system that lets developers write robot-related software.

Apart from giving a platform as a backbone, it is important to simulate the functionality of robots because they might look awesome on paper, but there is not a guarantee that they will look good in reality too. Therefore, it is not advisable to start collecting hardware without a specific plan of action. A good example is Gazebo which is designed to complete the simulation process. It has different robot platforms that aid the user to start the process. MORSE is another platform designed for simulation of outdoor and indoor academic robots. Further, the V-REP is available as an experimentation platform that can be supported on Mac, Windows and Linux.



INDUSTRIAL VISIT

Education is pointless, as long as it's implemented to solve the problems in the real world. Industries interactions give us the much needed exposure and experience of the current scenario in the industrial field.

Students of ISE engage themselves with regularly with the leading companies changing the scene of the industry. Staff members bridge the necessary link between the students and the companies.

As of recently, the students visited the one of a kind training facility of INFOSYS in Mysore. INFOSYS being the vanguard of technical innovation in the field of commerce in India and across the world was the perfect place to learn from. The students were made to experience the grandeur of being a trainee for a day. The students learnt the birth and development of INFOSYS and its outstanding software Finacle. The trainer gave them an insight into the pipeline of developing software.

Another MNC which goes by the name of MARLABS gave the students an opportunity to understand the working of a software and service company. The firm manager was kind enough to take his valuable time and interact with the students. The discussion varied from the flavors of OS used to develop software to the philosophy of being a coder in the ever changing world of technology. The manager spoke about the success and failure of managing an independent firm and starting out as an entrepreneur, he spoke of risk, life-lessons and moments that gave happiness and meaning in one's life.



PARTICIPATION IN TECHNICAL FEST



The students of ISE went far and out to participate and learn from the best and the brightest wiz of the technical industry at SRM University, Chennai. The University conducts Hack every year which attracts the under-dogs and the pros to network, learn, share and exchange ideas. The students of ISE took part in all the events conducted there, exposing themselves to a wide variety of ideas, hacks and experiences. This event enabled them to be in sync with the global campus life and the industry alike.

LIFE IN ENGINEERING



Nootan Nayak,

8th sem ISE

It's my very first write-up, so I have thought of writing on engineering. If you are an engineering student you may relate it and if not, I hope you will enjoy reading.

So I finally came to an engineering college, a partial dream come true after 2 years of my PUC. What had brought me here, were the high salaries students these days were getting, yes so salaries were a bigger factor, than an urge to become an engineer or I must say the dream of living a high standard life was the only driving force.

What I immediately noticed after coming to college was that students were here from different parts of the state having constantly very good ranks in their respective schools but what we had learnt in higher secondary level was basically done to secure good marks. We hardly knew our attitude would remain with us throughout. Engineering really means playing with or dismantling different types of things around for the ease of humans, but very few among hundreds had that knack. But whatever happened we have ended up in an engineering college for "four" unforgettable years of our life.

Students were now getting computers and laptops, we had internet connection in each room to stay updated about the latest technologies but we were using them to stay connected to friends through various social networking sites. Before we knew our exams were knocking the door, we always had this urge to laugh at people who used to study regularly and call them book worms but just before the exam we realize we were wrong, and the most important thing is that this realization remained only till the exam time. Thus most of the students who were ex-toppers were seen slogging before exam and praying just to clear exams.

We enjoy all other time in our college except the weeks in which exams are held and we seriously do. Staying away from guardians does provide a lot of freedom. Hanging out with friends in the campus, sleeping in class, giving proxies, mass bunks, taking computer games seriously, in fact very seriously, watching movies throughout the day, waking up at noon, we even started watching soap operas, life here is completely different. I don't know what we are doing is right or not but we are loving it.

I would like to end it by making every engineering students remember something.....till class 10 : " study till boards after that you can do whatever you want." class11-12: "it's only 2 years more after that it like picnic in the college, believe me its true!!! After entering into an engineering college and getting average C.G.P.A....!.

MESSAGE FROM THE EDITORIAL TEAM

It gives us unparalleled pleasure, delight, satisfaction and much needed relief to bring to you this beautiful piece of art called “Insider”. This is truly a result of labor and love. As, you travel your way through this letter, we hope to give you a feeling of undestined voyage. This letter solely desires to give you a bird’s eye view of the ISE experience. This is the closest piece of evidence that can only try, but never really conceptualize the experience.

The sheer magnitude of work and effort put in by each and every soul can only be tried thanking to. We from the editorial team are in deep gratitude for the each tip, suggestion, help, advice and the invisible effort from all corners. To the journey, to the experience, to the time, to the work, to the brief moments of happiness-Thank You.

THE EDITORIAL TEAM



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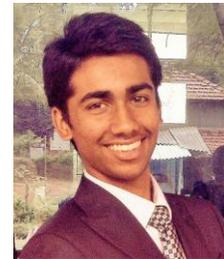
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