



VIVEKANAND EDUCATION SOCIETY'S Institute of Technology

Newsletter

Department of Computer Engineering

परिख्य

A Computation of
Dreams

परिख्य - 3rd Issue

Wednesday, March 16, 2016

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Department Strength

- 31 Qualified Faculties
- Research Publications: 57

Contact Us

www.vesit.edu

Editorial Team

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- Piyush Mantri
- Student, D12B
- Deepika Khatri
- Student, D12A
- Aditya Wakade
- Student, D12A

Message from the Editorial Team

Progress is mankind's second nature. Always evolving, trying to scale the rockiest terrain to unlock greater achievements. Awaiting you are multitudes of *extraordinaire* accomplishments that hope to ignite the spark in you. With a great response to our previous edition, we present to you the third installment of our newsletter: "Parikhya— A Computation of Dreams."

Message from the Associate Professor

- Sujata Khedkar



"Arise, Awake, Stop not until Your Goal is Achieved"

Welcome and best wishes to all who receive this Newsletter. It has been an interesting and busy semester for members of the Department.

It gives me great opportunity to present the third issue of "Parikhya ". This newsletter is one of the ways in which we can disseminate information on the life of the department.

This issue further continues to highlight the performance of our students in academics, , co-curricular as well as extra-curricular activities.

I would like to thank all my colleagues for their tireless efforts to help the department progress at a very steady pace.

Vision of the Department

To reach international standards by empowering students with computing skills and cutting edge technology.

Mission of the Department

To sustain excellence in teaching and research and create centre of excellence. To provide broad Educational and Research experiences through interdisciplinary and industrial collaboration programs. To prepare students to enter the world of computing and make them ready for productive employment in the public or private sectors, enhance their entrepreneurship skills and motivate them to pursue advanced degrees.

Program Educational Objectives

- I. To provide students with a solid foundation in their core concepts of mathematical, scientific and computer engineering and fundamentals required to comprehend, analyze and design solutions for real life problems.
- II. To inculcate in students, a balanced outlook with professional and ethical attitude, develop effective communication skills, teamwork and leadership qualities with multi disciplinary approach.
- III. To prepare students to excel in postgraduate programs through an excellent academic environment and make them ready for productive employment in the public or private sectors, provide lifelong learning experience.
- IV. To provide broad educational and research experience through interdisciplinary and industry programs.

Program Educational Outcomes

PO1 (a) Basic Engineering knowledge: An ability to apply the fundamental knowledge in mathematics, science and engineering to solve problems in Computer engineering.

PO2 (b) Problem analysis: Identify, formulate, research literature and analyse computer engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and computer engineering and sciences.

PO3 (c) Design/ Development of Solutions: Design solutions for complex computer engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

PO4 (d) Conduct investigations of complex engineering problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.

PO5 (e) 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.

PO6 (f) The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to computer engineering practice.

PO7 (g) Environment and Sustainability: Understand the impact of professional computer engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

PO8 (h) Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of computer engineering practice.

PO9 (i) Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.

PO10 (j) 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.

PO11 (k) Project Management and Finance: Demonstrate knowledge and understanding of computer 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.

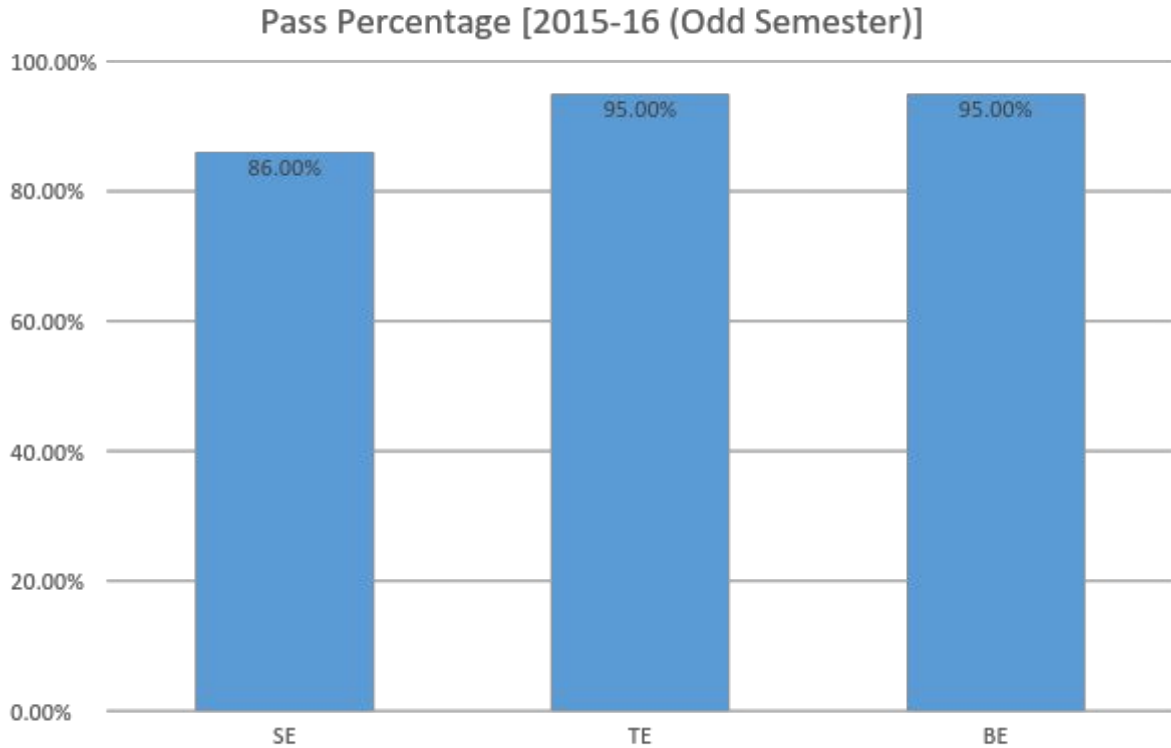
PO12 (l) Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes

Professional Skills: The ability to develop programs for computer based systems of varying complexity and domains using standard practices.

Successful Career: The ability to adopt skills, languages, environment and platforms for creating innovative carrier paths, being successful entrepreneurs or for pursuing higher studies.

Results



Placements

Student Internships

- BPL
- Air India
- Lookup
- Mahindra Mahindra

Entrepreneurial Activities

- **Harsh Gupta** and **Nirbhay Pherwani** won the first prize in the **Make in India Hackathon** held at IIT Bombay. Their project titled 'Subsurface irrigation model with a sensor based crop prediction' is a low cost irrigation solution for drought hit farmers.
- **Mr. Divyansh Saxena** has raised \$200,000 from **Silicon Valley Angel Investor** for a crowdfunding platform **Kernl, Inc.** He is currently heading the Indian division for this start-up, which has its headquarters in **California.**



Kanchan Srivastava @kanchanSays

A low-cost irrigation solution for drought-hit farmers proposed by two computer science undergraduates of **Vivekanand Education Society's Institute of Technology** has won the first prize in the water solutions category of **Hackathon**, an all-India competition of innovation organised by IITB and held at the Make in India event.

Harsh Gupta and **Nirbhay Pherwani**, both 20 and third-year computer engineering students, had presented a subsurface irrigation

model along with a sensor-based crop prediction system. It incorporates sensors of salinity, water content and other crucial parameters and links them to an online platform, which offers prediction of crop growth, survival chances and yield, all through data analysis of previous years. The information is then disseminated to farmers periodically through SMS.

They were among the six teams of students who won awards in three categories — water, transport and energy. Incidentally, none of the winners were from IITB.

The department of industrial policy and promotion (DIPP) instituted the Hackathon to associate youngsters with its Make in India Week. The week-long Hackathon saw coders, engineers and designers collaborate to come up with ideas for solving urban design problems.

Soon after the award ceremony, the boys received two proposals for collaboration from agriculturalists. "With such encouragement at the national platform, we will come out with real-time solutions soon," Gupta told **dna**. The duo's next step is to establish a start-up.



Student Activities

Research Internships

- **Brijesh Modi (D17 B)** completed a research internship in the domain of Neurosciences at **Brown University** under Mr Omar J. Ahmed, PhD. He delivered a lecture on “Conductance Based Modelling Of Neurons”.
- **Kanvi Parekh (D17A)** interned at Quantum Information and Computation in the domain of Enhanced minimization algorithm for factorizing semi-primes under Tapas Samanta , **VECC, Kolkata**. She delivered a lecture titled “Quantum Cryptography” on October 1, 2015 under VESIT Research Forum.
- **Divyansh Saxena (D17B)** did an internship in Data Analytics under Bernt Wahl, Former Engineering Faculty University of California, Berkeley. He delivered a lecture on “Statistics and Computer science”: Project at Berkeley Univ. of California” on October 1, 2015 under VESIT Research Forum.

Programs and Scholarships

- **Winter School Programme**

Winter School Programme on “ERP/SAP AND OPEN SOURCE TOOLS” was organized on 7th and 8th January, 2016.

- **Scholarships**

29 students were awarded with various scholarships from institutions like Geeta Israni Foundation Scholarship, Indiabulls Foundation, Parbhatibhai Scholarship, Student Aid Scholarship, Swami Vivekanand, Vivkanand Jyoti Scholarship, Shri Brihad Bharatiya Samaj, Suman Ramesh Tulsiani Charitable Trust, VES Education Fund and Mahalakshmi Temple

Wall of Fame



Niles Thadani, Nisha Sajrani, Brijesh Modi
1st Runner up in Inter-College Algorithm 1.0
AIKTC, Panvel



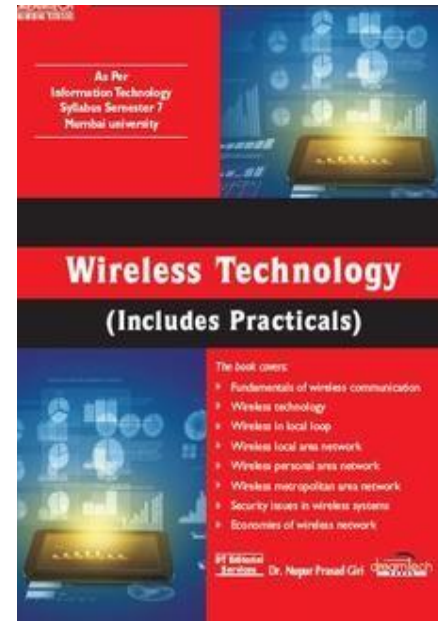
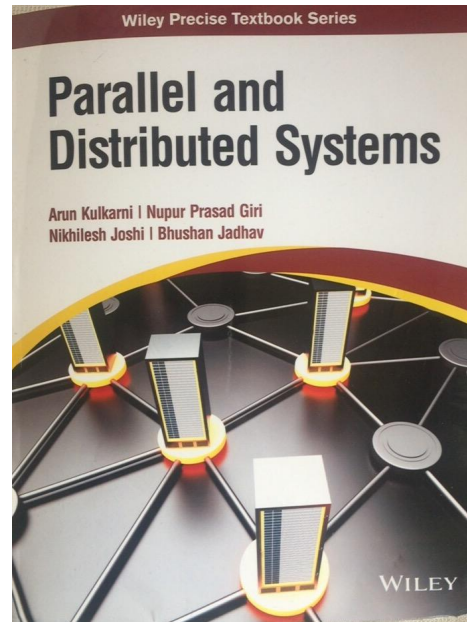
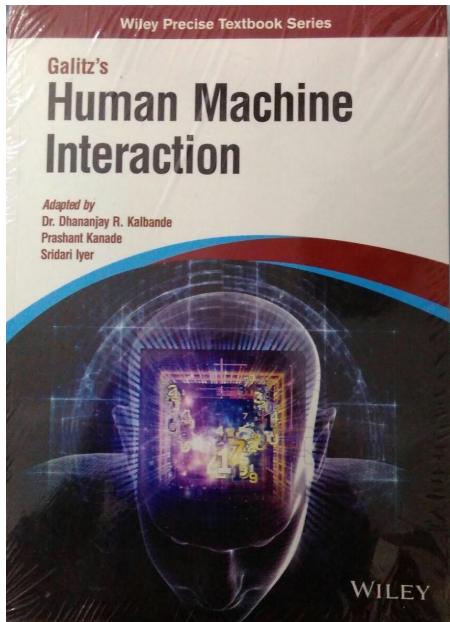
Hema Vijria- Internship at dealwithus as a web developer
(Afflatus creative solutions pvt. ltd.)

Projects

- Project titled “Cryptanalysis of crypt and SHA-512 using Distributed Processing over the Cloud” (Research Paper in IJCA, October-2015 Edition) by Atishay Aggarwal, Pranav Chaphekar, Rohit Mandrekar.

Book Publications

- **Dr. Nupur Prasad Giri:** “Parallel and Distributed Systems” published by Wiley, India at VESIT, Mumbai in the month of January.
- **Dr. Nupur Prasad Giri:** “Wireless Technology” published by Dreamtech Press in the month of July.
- **Prof. Prashant Kanade:** “Galitz’s Human Machine Interaction” published by Wiley, India at VESIT, Mumbai in the month of January.



Seminars and Workshops

- **Short Term Training Program:** ISTE Approved Short Term Training Program on “Big Data and Cloud Computing” was organized for the faculty from January 4 -January 9, 2016.
- Orientation of Parallel and Distributed Systems was held on 13 January 2016.



NPTEL Course Certification



- Mrs. Anjali Yeole attended a course on “Introduction to Information Security” conducted by IIT Madras in April, 2015
- Mrs Indu Dokare attended a course on “Digital Circuits and Systems” conducted by IIT Madras from April to July, 2015
- Mrs Sunita Suralkar attended a course on “Digital Circuits and Systems” conducted by IIT Madras from April to July, 2015
- Mrs. Manisha Gahirwal attended a course on “Database Design” conducted by IIT Madras from February to May, 2015
- Mrs. Sharmila Sengupta attended a course on “Principles of Modern CDMA/ MIMO/ OFDM Wireless Communications” conducted by IIT Kanpur from July to September, 2015.

Courses Conducted

- Dr. Mrs. Nupur Giri conducted a course titled “Orientation – Parallel and Distributed Systems” organised by Computer Department, VESIT on 11 January, 2016.
- Mrs. Sujata K. conducted an ISTE approved STTP on “Big Data Analytics” organised by VESIT from 4-9 January 2016 for duration of 6 days.
- Mr. Prashant Kanade conducted a course titled “Orientation – HMI” organised by Sardar Patel Institute of Technology, Andheri on 6 January, 2016.
- Mr. Prashant Kanade Coordinated course titled “Orientation – Big Data Analytics” organised by VESIT on 5 January, 2016.
- Mr. Prashant Kanade conducted two courses titled “Introduction to programming languages” and “Get Ready for Industries” on 24 February and 1 March 2016 respectively. The courses were organised by Electronics and Telecommunication Department, VESIT.



Guest Lectures Conducted

- Mr. Lakshman Yedu (Consultant) delivered a lecture on “Design Patterns”, for third year (D12A, D12B) students on 10 October 2015.
- Yati Gharat, SnPower, Norway delivered a lecture on “Network Security IPSec” for final year (D17B & D17C) students on 24th September 2015.

New Specialized Labs for Electives

- **Cloud Computing Lab:** This new Lab caters to the students of final year course and has opensource softwares like Open stack, OwnCloud, XEN and KVM also VirtualBox. These resources may also be used for various projects.
- **Machine Learning & Big Data Analytics Lab:** This specialized lab is for the final year Elective courses- Big data Analytics and Machine Learning. It is equipped with latest high end computers. Cludera distribution for Apache Hadoop version 4.4.1 which comprises of Hadoop, Hive , Pig, Hbase are used along with other opensource tools like R, Mahout.

New E-learning and Archival Center