VVPCE BULLETIN

NEWS LETTER – DEPARTMENT OF COMPUTER ENGINEERING
V.V.P. ENGINEERING COLLEGE

From the desk of chairman   vision-mission
Department activities   Department at glance
Department   birds-eye-view   HoloGraphic   Emoji
DAKNET   E-bike   Social   Nano   Storage
Paper Battery.

V.V.P. Engineering College
Virda Vajadi, Kalawad Road,
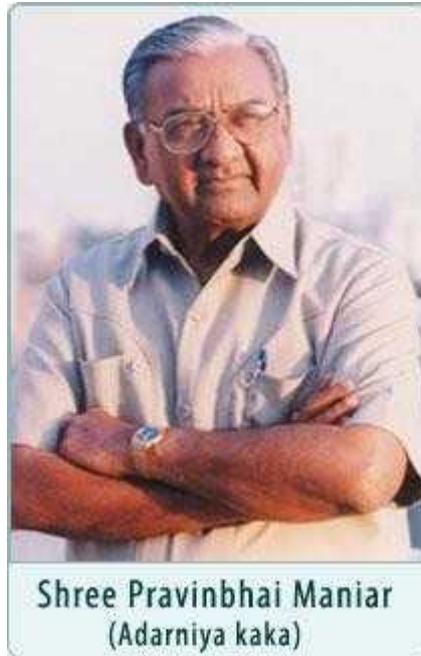Rajkot, Gujarat – 360005
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From the Desk of Chairman

Shree Pravinbhai Maniar
(Adarniya kaka)

Science based systematic knowledge needs to be utilized for all around development of the human personality that takes into account the spiritual, moral and social aspects while keeping in the view the traditions, culture, values of life and philosophy of nation. New and emerging technologies have changed the whole scenario, with arrival of internet and its peripherals being the order of the day. V.V.P. Engineering College, Rajkot established by Vyavasayi Vidya Pratishthan is a major step forward in the direction of contributing an excellent technological institution to this country.

Challenges thrown by globalization, privatization and liberalization of economy can be solved by highest degree of technical knowledge, skill, expertise and sharp intellect. We at V.V.P. Engineering College, shall grow world class professionals in the fields of engineering and architecture, who will not only take up the challenges of material world but fulfill the commitment of "Krinvanto Vishwam Aryam"

From the Desk of Principal

Principal
V.V.P. E.C.

Dr. S.P.Parikh

Welcome to V.V.P., a world-class center for excellence in technical education. It is the leading technological institute of India and is the home to a wide range of academic departments and services in research and consultancy. We provide best education in the major areas of the technology. What distinctly and proudly lead us to the top of the league is that the institute is truly global in outlook, cosmopolitan in character and deeply rooted to the traditional values of Indian culture and heritage. You would enjoy the challenges and opportunity that we offer and we look forward to welcoming you to a place of genuine intellectual excitement for an unforgettable simulating experience in the world of existing and emerging technology and emerging technology, Welcome back to future…

From the Desk of H.O.D

Dr.Tejas Patalia
H.O.D(C.E.)

Computer Engineering is the most prominent branch in todays Competitive world.

The Computer Engineering Department at VVP has modern fully equipped state of art computer setups. It has a team of highly qualified capable & dedicated faculty members.

As HOD my aim is to meticulously raise the standard of Computer Engineering Department with sound technical knowledge, excellent soft skills and integrity towards work

Vision

The Vision is to be a leader in educating, creating and graduating today's and tomorrows finest engineers! This includes investing in the intellectual and human capital of each individual student, focusing on both breadth and depth of knowledge, multidisciplinary, and integrated education, and meeting and exceeding current and future challenges in computer engineering.

Mission

The Computer Engineering department aims to provide a bridge between the latest Technology and the student's eagerness to acquire the knowledge.

- Embracing knowledge and education
- Being recognized as a Department that offers the best and most unique programs in computer engineering, and preparing its graduates to assume leadership roles and social responsibility
- Providing an environment in which students are given the essential resources to address, research and solve real-world problems, participating in interdisciplinary and multidisciplinary research and its applications
- Promoting active learning, critical thinking, and engineering judgment, coupled with business and entrepreneurial skills

Department activities

1) Novateur club

Every single soul on earth is gifted with some talent and skill. This skill generates different ideas & thoughts which lead to innovation. But unfortunately many of us are not aware of this skill & if we are aware of these skills then we don't know how to implement them, execute them and mainly how to represent these skills in front of world. At this stage the question arises that whether we have enough platforms to represent our ideas & skills? Whether we have given any opportunity to implement our thoughts & skills? NO. Actually the issue for present youth is that they know they are having enough capabilities, ideas and skills but not having enough platforms or are not aware of those platforms to present their skill. The youngistan is full of talent, and passion. The youth contains writers, dancers, photographers, techno –minds and many more. But, unfortunately they don't have enough chances and opportunities to show their talent. So, it is becoming necessary to give them an opportunity & platforms to the people with talent & skill.

Co-coordinators

1) Dr. Tejas patalia (H.O.D)

2) Prof. Girish Mulchandani

3) Prof. Sagar virani

Activities

1) THE CODE Chef Campus

Latest activities were the code chef for novateur club. Students have actively participated In competition. Different exam from programming language has been conducted.

2) Faculty at STTP

Workshop of oracle academy at GTU was organized on 1st June, 2015 to 5th June, 2015.

Three faculty members of CE department V.V.P. Engg. College has enthusiastically participated.

Prof. Girish Mulchandani
Prof. Kamal Sutaria
Prof. Nivid Limbasiya

Sessions were conducted by Mrs. Suji Uchil, Oracle Academy.

Timing was 9 am to 5 pm daily.

STTP On Programming in PL/SQL at GTU was organized on 8th June, 2015 to 12th June, 2015.

Two faculty members of CE department V.V.P. Engg. College has enthusiastically participated.

> Prof. Chirag Patel
> Prof. Viraj Daxini

Sessions were conducted by Mr. Aman Sharma, Oracle Academy.

Timing was 9 am to 5 pm daily.

That workshop contains learning with practical experience of all database management system concepts through online course of oracle academy. Course contains basics of database management system including ER diagram, all the commands and functions to run SQL query and a project to show the real use of ER diagram by all participants. All the participants were distributed in different groups for particular task to choose one topic for project work. On the last day of workshop, all the groups had given presentation on their respective topics.

Some photos:

Department at glance

1) Department's 'Birds-eye-view'

1) Placement program

2) Industrial-interaction program

3) Novateur club

4) Consultancy services

5) Short term training program

6) Technical seminar

2) Department work space

Database Lab

The Database Lab is involved in many different exciting areas of database research. A brief description of some of our on-going research areas *New Methods for User Interaction with the Web, Incorporating Uncertainties into Databases*.
Students are increasingly interested in becoming an active part of the systems that they use. On the Web, user involvement in large-scale information systems can be of great benefit, as demonstrated by YouTube, Facebook and Wikipedia. User contribution is possible only on the Web, where user-friendly interfaces are highly valued and emphasized.
In the database laboratory, we offer research projects of theoretical and/or practical nature.

Project Lab

The Department of Computer Engineering's Project Lab provides Computer Science and Computer Engineering undergraduate students a rich opportunity to experience real-world system development by developing innovative software and software/hardware solutions to practical problems. The student experience includes professional development, technical writing and communication skills, teamwork and project management, leadership, and analytical and critical thinking skills that will prepare them for successful careers in today's rapidly changing, technology-driven world.
The Project Lab experience also provides students the opportunity to develop projects supported and sponsored by local and regional businesses, government agencies, and researchers. In turn, sponsors have an opportunity to engage our students and enhance the educational experience by providing a rich context in which to develop projects. It is a unique opportunity to try new things, foster new perspectives, and, in a word, innovate!
Each Computer Engineering senior takes a two-semester Capstone Course sequence. In the first semester students go through a professional development course, form their teams (3–4 students), choose their projects and prepare for active development in the second semester.
Project Lab has other opportunities in which industry can engage our students. The Innovation Lab Seminar Series is a venue in which industry partners can give presentations on techniques, frameworks, and technologies used in industry and engage students.

Computer Network Lab An Inspiring Place

Computer network and network security laboratory , designed and developed in the year of 2000, is the premier laboratory of CE Department, V.V.P Engineering College. Not only it is designed with professional approach but has a unique and innovative way of simulating the actual field of computer network. The students not only study , Program and perform network practical on actual devices but get a real time experience of network design. The lab is configured with NS2, Cisco Packet Tracer, Open SSL, nMap and many more networking tools that require for undergraduate and Post Graduate as well.

This Lab will take the students to the next level of programming. Students perform practical in Linux platform and creature modules for different phases of compiler. This lab is designed to empower their knowledge regarding operating system functions and c programming skills. The lab will help student to brush up their skills in object oriented programming. The students are provided internet connectivity to solve the problems by self learning, and they are allotted a dedicated faculty member for their continuous guidance.

Advanced Software Development Lab

The primary goal of software engineering is to take student to the next level with respect to their ability to design and implement high quality software systems. This lab takes technological approach to the presentation of traditional software engineering concepts like specification, modeling, analysis, and design. The students will acquire significant new skills with languages like: HTML, PHP, Java, .Net, SQL etc. and tools like IDEs for different languages, Different testing strategies. The skills of students with these tools and traditional software engineering concepts will be complemented by an understanding of open source software development methods, continuous integration and testing, process and project measurement and analysis, agile software development, and web application development.

CPU Lab

This Lab provides students with an entry-level foundation in computer programming. The goals of the course are to develop the programming ability in students, and to improve their proficiency in applying the computing fundamentals to their field of study. Topics include overview of high-level languages, introduction to C/C++ Library, basic data types, function definitions and declarations, conditional and iteration statement, array and string manipulation, recursive programming, introduction to searching and sorting and introduction to structures and pointers. In summary, the basic aim is to teach the student to program in C/C++ at a level where they are able to eventually write programs to help solve their everyday engineering, science and technology related problems.

DAKNET
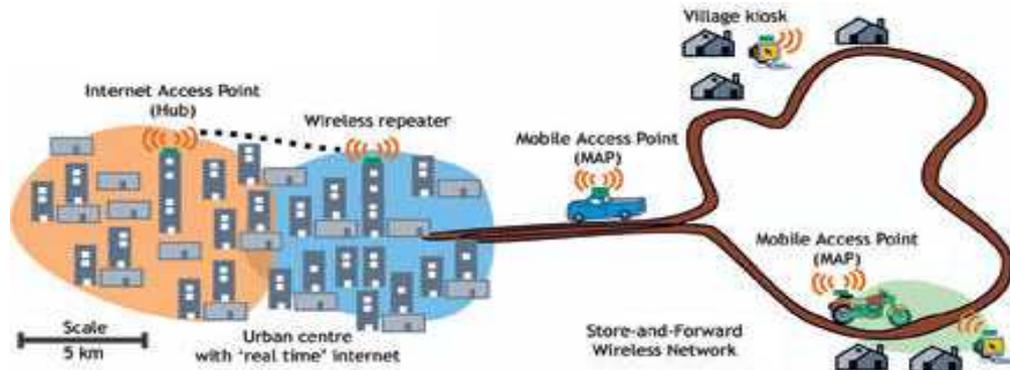
Daknet, whose name derives from the Hindi word for "post", combines a physical means of transportation with wireless data transfer to extend internet connectivity to rural areas.

It is Developed by MIT Media Lab Researchers, it Connects villages lacking a digital communication infrastructure through existing communication and transport infrastructure. So, basically DAKNET is an ad hoc network which uses wireless technology to provide asynchronous digital connectivity.

Why DAKNET?

Real time communications need large capital investment and hence high level of user adoption to receiver costs. The average villager cannot even afford a personal communications device such as a telephone or computer.

Also, Telecommunication Companies are usually reluctant to extend their network to rural areas due to high infrastructure costs, low population density, and limited ability to pay for the services. First Mile Solution counters this problem by providing telecommunications equipment that can cheaply connect rural and remote populations to the internet through an innovative technology: "DAKNET"

Now reaches 40,000 villagers through various projects.

Compiled By

Malik Lakhani

Pujara Jeet

7th Semester Student

3 Doodler – World's First 3D Printing Pen

Then dream no more! The 3Doodler is the world's first and best 3D printing pen that allows you to draw in 3D by extruding heated plastic filament that cools almost instantly into a solid, stable structure. You'll be able to draw up into the air and create anything you can think of, whether it be a lamp shade, an architectural model, decorations, or even jewelry.

How it actually works!

The 3D printing pen uses ABS plastic which is the same material used by many 3D printers. The 3Doodler contains a mains-powered electric heater that melts plastic which then cools as it comes out of the end of the pen like a cake-icer. Working in a similar way to 3D printers, the pen allows a practiced user to produce sophisticated three-dimensional shapes.

Compiled By

Krupali Mandavia

7th Semester Student

iBeacon

iBeacon is a new technology described by Apple Inc. as "a new class of low-powered, low-cost transmitters that can notify nearby iOS 7 or 8 devices of their presence." The technology enables a smart phone or other device to perform actions when in close proximity to an iBeacon.

iBeacon uses Bluetooth low energy proximity sensing to transmit a universally unique identifier picked up by a compatible app or operating system. The identifier can then be looked up over the internet to determine the device's physical location or trigger an action on the device such as a check-in on social media or a push notification.

With an iBeacon network, any brand, retailer, app, or platform will be able to understand exactly where a customer is in the brick and mortar environment. This provides an opportunity to send customers highly contextual, hyper-local, meaningful messages and advertisements on their smartphones.

Compiled By

Jaimin Maniyar

7th Semester Student

NanoFormS

Storing data for a significant stretch of time is a trickier task than it might seem. Paper and film can last a few generations if they're carefully preserved, but even under the best conditions they tend to fade after a while. Digital media (CDs, flash drives, and external hard drives) have a 30-year life span at best — assuming they aren't scratched, corrupted, demagnetized, or rendered obsolete by newer systems before then. And the cloud? That'll only last for as long as we can keep our current Internet infrastructure intact, and that's completely out of your hands.

What if you want to store something for a thousand, one hundred thousand, or even a million years? How would you preserve information for that long? The answer, according to French entrepreneurs Alain Rey & Farid Benzakour, is to etch your data into sapphire with a high-powered laser. Using this technique, the duo have created a unique analog storage device dubbed the "Nano form"

Nano forms are essentially a high-tech cross between stone tablets and microfilm slides. Instead of chiseling crude symbols into a hunk of rock, Rey and Benzakour use a sophisticated laser etching process to scrawl information into a disk of lab-grown sapphire — the second hardest material known to man. Using this method, they're able to etch out shapes in incredibly fine detail — so small that they need to be magnified (like microfilm) in order to be read.

Compiled By

Ann Augustine

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