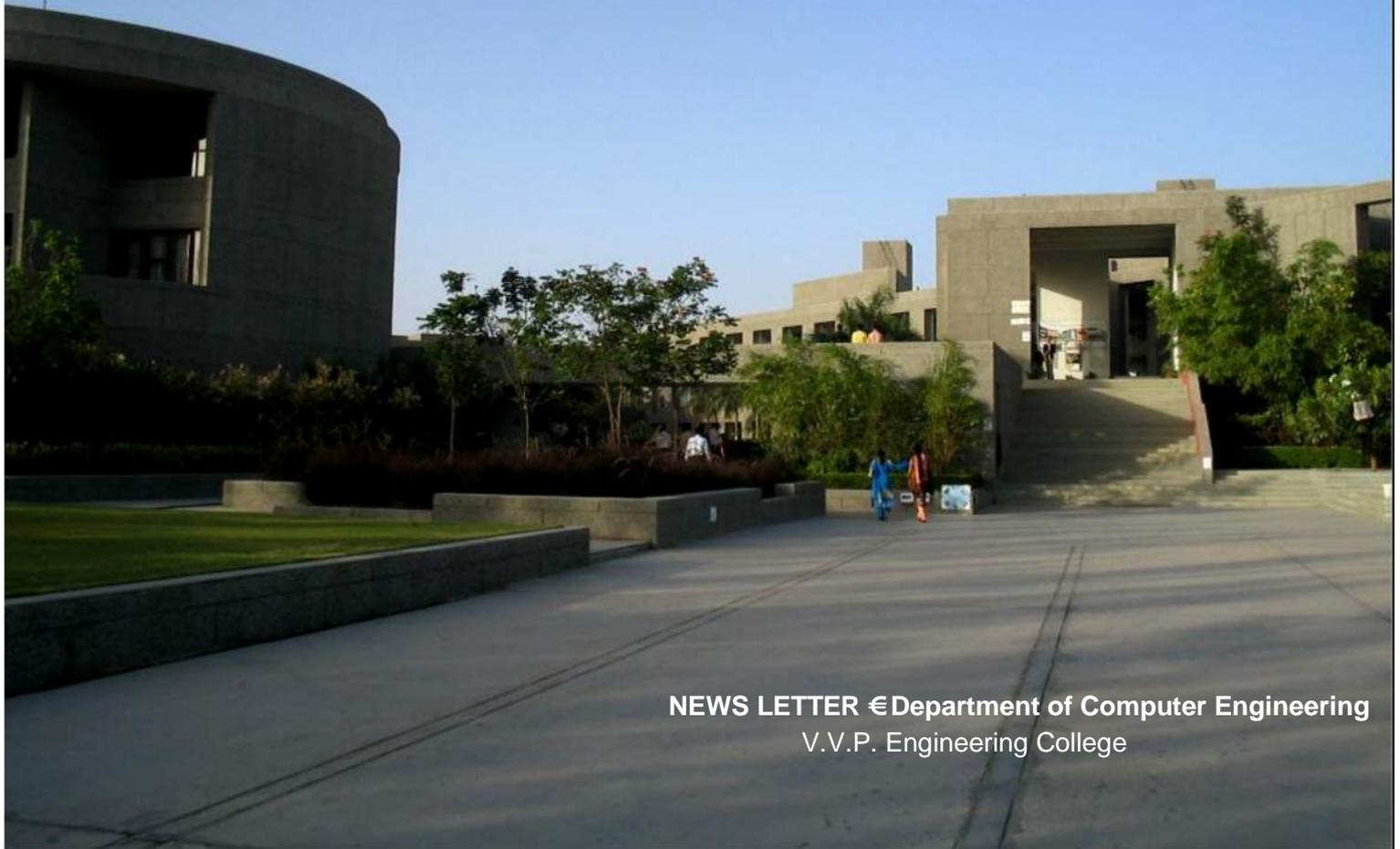


VVPCE BULLETIN



NEWS LETTER € Department of Computer Engineering
V.V.P. Engineering College

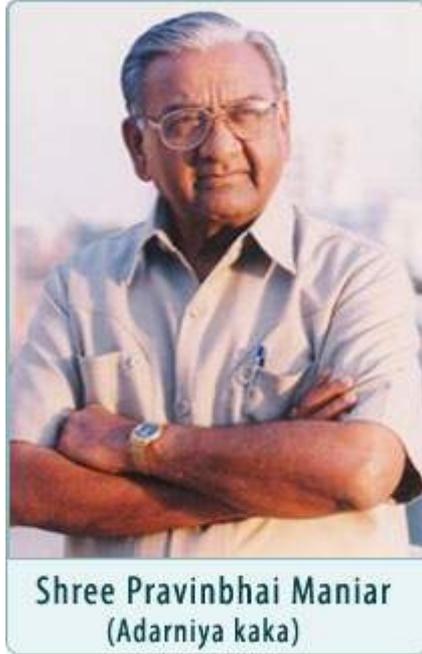
From the desk of chairman vision-mission
Department activities Department at glance
Department birds-eye-view Department logo Faculty
:rain Faculty poem Department work-space Articles:
Spirituality, Networking ,social and tech.

V.V.P. Engineering College

Virda Vajadi, Kalawad Road,
Rajkot, Gujarat €360005
Ph.: (0281)2783394, (0281)2783486
Fax.: (0281)2783487
Visit : www.vvpedulink.ac.in



From the Desk of Chairman



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



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

From the Desk of H.O.D



Computer Engineering is the most prominent branch in today's 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 tomorrow's 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) Nova teur 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 YOUTH PARLIAMENT

- to encourage the present youth towards the politics & to motivate them to take an opportunity and choose politics as a career option the NOVETEUR CLUB has taken a small step by conducting a • **YOUTH PARLIAMENT** For students of CE dept. in VVP Engg. College.
- Unlike other Parliaments, laughter was a part of serious debates which ended in constructive conclusions instead of any bitterness on the day of the Youth Parliament Competition held at the CE department of VVP engineering college under the newly formed club • NOVETEUR,.

SOME PHOTOS



2) Painting competition



3) One day canteen



4) Seminar on technical topic



Re.search

HOD
Dr. Tejas P. Patalia

SEM-1

- 1. Communication and Research Skills
- 2. Computer Commun. and Networking
- 3. Computer Algorithms
- 4. Advanced Computer Graphics
- 5. Wireless Computer Networks
- 6. Information Theory and Coding

Lecturer Girish Mulchandani
Asst. Prof. Kamal K. Sutaria

SEM-2

- 1. Principles Of Management
- 2. Object Oriented Programming
- 3. Artificial Intelligence
- 4. Distributed Operating Systems
- 5. Cryptography and Network Security
- 6. Design of Language Processors

Asst. Prof. Naren V. Tada
Asst. Prof. Viraj C. Daxini

SEM-3

- 1. Advanced internet Technology
- 2. System Programming
- 3. Seminar
- 4. Dissertation Phase-I (DP-1)
- 5. Presentation on Literature Review

Asst. Prof. Chirag R. Patel
Asst. Prof. Saagar H. Virani

SEM-4

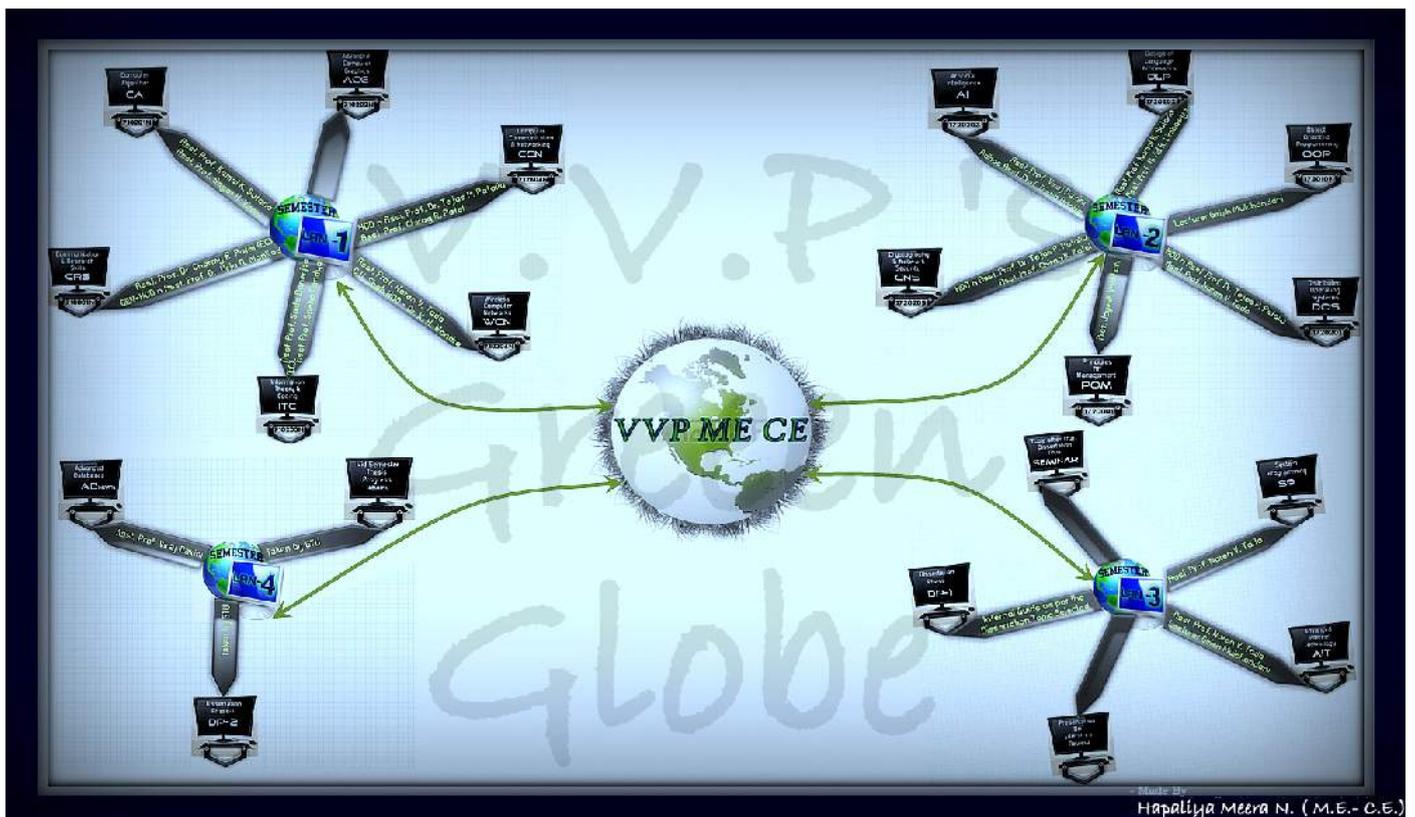
- 1. Advanced Databases
- 2. Mid Semester Thesis Progress Review
- 3. Dissertation Phase-II (DP-2)

Asst. Prof. Nivid R. Limbasiya
Asst. Prof. Disha Adajia

Computer Department's Master of Engineering Train is leading by our Respected HOD - Dr. Tejas P. Patalia .
All the teachers are the FLAGS of this Train who are always giving RED-GREEN signs to
All the CE-STUDENTS for IMPROVING their RESULTS more in all the 4-Compartments
Of this Train, which ultimately gives HIGH-SPEED to the Train that always
Brings all the students to their Respective RESEARCH - STATION.

Hapaliya Meera N. (M.E.-C.E.) - Made By

4) Subject view



Design by
Meera hapaliya
2nd M.E(C.E.)

5) Faculty poem

A Poem that contains my all dearest faculties of my computer engineering department,

Ek bar manushya apne ap se hi bat karne laga,
 Bat kuch vishwas ki,
 Sagar jaisa vishal banane ki,
 Kamal saman sampurna hone ki,
 Tejas saman tivra banane ki,
 Viraj saman shaktiman hone ki,
 Par samay hame kuch aur hi le jata he,
 Ek snehal saman bhumi par,
 Akshita saman halat se ghir chuka hai manushya,
 Chirag saman dipesh jyot felani ki hai ichacha uski,
 Par Nivid se halat me kya kare,
 Devangi saman ishvariyy tatva par hai uski rujuta,
 Lekin rat me koi chandani sa prakash dikhta hi nahi,
 Khyati pane ki hai tamanna,
 Vishakha jaise sitare bhi uske sath hai,
 Par na jane kyun riddhi sa sanman hasal nahi hota,
 Koi Chetan si foram felani ki hai chahat,
 Ek mital si mitrata banane ki hai chahat,
 Bas yeh samay hi soumi may takat de,
 Aur koi ishvariyy girish tatva mitha(sweety) sa sath nibhaye,
 Taki am manushya bhi naren saman khas ban sake,
 Yahi meri doordarshita hai....

Written and compiled by

Darshita Pathak

2th M.E (C.E)

6) 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.



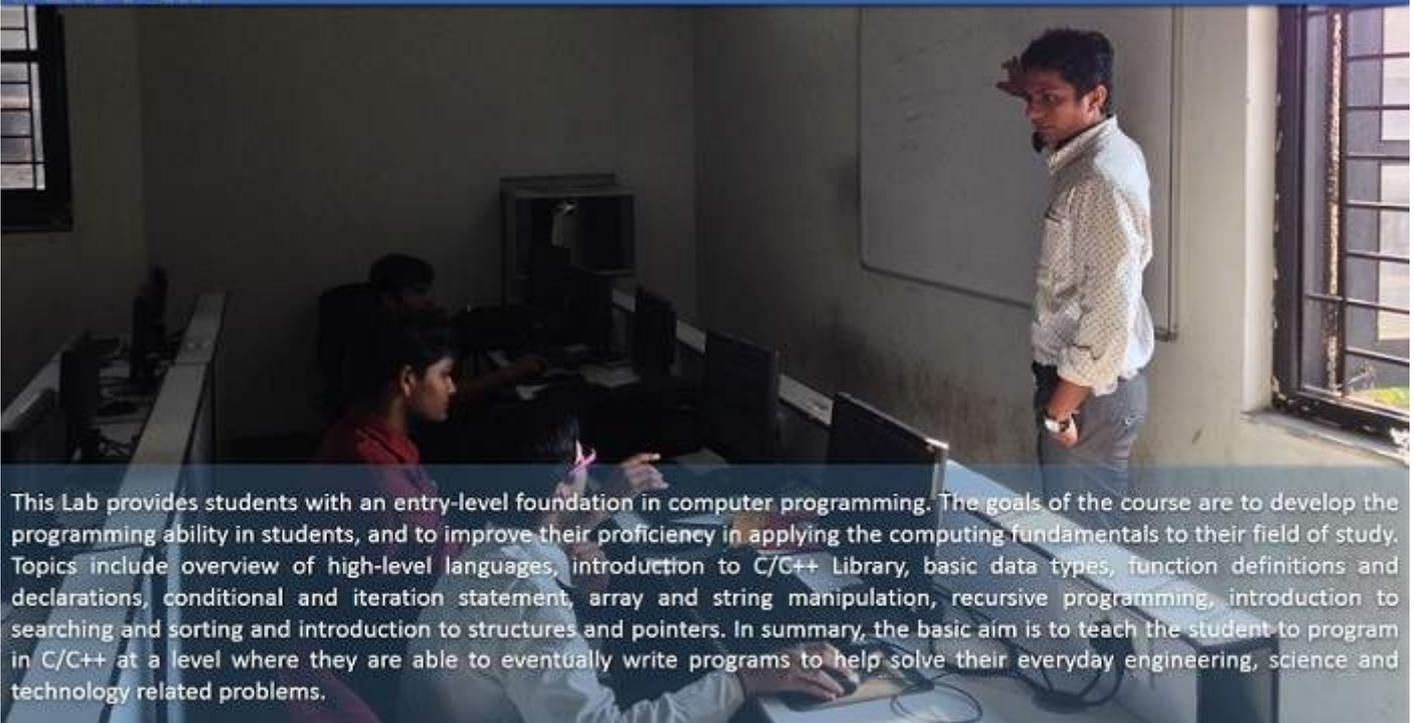
This Lab will take the students to the next level of programming. Students perform practical in Linux platform and create modules for different phases of compiler. This lab is designed to empower their knowledge regarding operating system functions and c programming skills. The lab will help student 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.

Compiled by
Chirag R. Patel
Assistant professor

Articles

Spirituality: Where there is a will, there is a way€

•Where there is a will, there is a way. If there is a chance in a million that you can do something, anything, to keep what you want from ending, do it. Pry the door open or, if need be, wedge your foot in that door and keep it open.€Pauline Kael

As is the statement, so is the life. You can be the best and the same in the opposite way. The only thing which rules the whole winning attitude and winning end is the will. The will power has the great amount of internal force which can lead to the success and usher the doors of destination. We always somewhere, at some point of time, get the opportunity but what we lack is the willpower. If we indulge ourselves into achieving the altitudes, nothing can stop us. But before we stop getting something, the fear of not getting the desired results, stop our efforts in the particular direction. Hard work, proper motivation, determination will be the additional flavors and the fragile things needed with the will power. Till now, will power has become the foundation for many victories. The human mind has lots of wishes. In fulfillment of all those wishes, the immense power from inner self is essential. We can,,t achieve because we live in our desires. We never think of giving the fuel to those desires to make them reality. This is the problem of human being suffering and it may become the nation,,s problem, too. There is one proverb, •Great souls have wills; feeble ones have only wishes.,

Will is the great force for both good and evil. Will power is needed in all the situations; whether we win or fail. If we fail at something, we have won the half battle. The remaining will be won by keeping the faith in the self and having the strong determination inclined with will power. It has many by products like, you will have more confidence, and it will make you valuable. You will shine. Willpower does not need success, it is success. Just like a gardener who has to keep weeding to prevent the weeds from eating the life of the garden, we need to keep building strong willpower by weeding out our fears and limitations.

Written and compile by

Pooja Vaishnav

4th M.E (C.E)

TECH: txtWeb Users LOVE txtWeb's Apps!!!

5 million users in just over two years!! Hundreds of developers with their innovative ideas are building newer apps ever so regularly; no wonder txtWeb platform is getting more and more dynamic by the day!!!

We caught up with a handful of our valued users to ask them how txtWeb apps help them in their daily lives, the app they use most often and what they think about txtWeb. And here,,s what they had to say!!

What is txtWeb for you?

While one user said that txtWeb provides information through simple SMSes, another user told us that txtWeb gives access to internet even on a basic mobile handset via SMS.. One of our many student users told us that txtWeb provided one of the best platforms for students to develop Apps. Most of them whom we interviewed also told us about the huge number of txtWeb apps available and how simple it is to use them!!!

Didn,,t we tell you so?

Situation when a txtWeb App helped you

Our users told us that they use txtWeb apps to check movie ratings, to know live cricket scores, to get pincodes (J), to find routes*f*.. The list is endless.

Which app do you commonly use?

And then we popped the most important question - the app they use most often. The replies ranged from @weather, @news, @wikipedia, @clues, @cricbuzz, @callerid, @imdb, @mean, @goog, @fbc, @cri, @daak, @sendmail, @smsbox, @pnralert... Phew!! Aren,,t they a whole lot of them?

Written and compile by

Parthiv Yaadav

8th B.E (C.E)

Social: Anna Hazare (Man behind India against corruption)



He once contemplated suicide and even wrote a two-page essay on why he wanted to end his life. Anna Hazare was not driven to such a pass by circumstances. He wanted to live no more because he was frustrated with life and wanted an answer to the purpose of human existence.

The story goes that one day at the New Delhi Railway Station, he chanced upon a book on Swami Vivekananda. Drawn by Vivekananda's photograph, he is quoted as saying that he read the book and found his answer - that the motive of his life lay in service to his fellow humans.

Today, Anna Hazare is the face of India's fight against corruption. He has taken that fight to the corridors of power and challenged the government at the highest level. People, the common man and well-known personalities alike, are supporting him in the hundreds swelling to the thousands.

For Anna Hazare, it is another battle. And he has fought quite a few, including some as a soldier for 15 years in Indian Army. He enlisted after the 1962 Indo-China war when the government exhorted young men to join the Army.

In 1978, he took voluntary retirement from the 9th Maratha Battalion and returned home to Ralegaon Siddhi, a village in Maharashtra's drought-prone Ahmadnagar. He was 39 years old.

He found farmers back home struggling for survival and their suffering would prompt him to pioneer rainwater conservation that put his little hamlet on the international map as a model village.

The villagers revere him. Thakaram Raut, a school teacher in Ralegaon Siddhi says, "Thanks to Anna's agitations, we got a school, we got electricity, we got development schemes for farmers."

Anna Hazare's fight against corruption began here. He fought first against corruption that was blocking growth in rural India. His organization - the Bhrashtachar Virodhi Jan Andolan (People's movement against Corruption). His tool of protest - hunger strikes. And his prime target - politicians.

Maharashtra stalwarts like Sharad Pawar and Bal Thackeray have often called his style of agitation nothing short of "blackmail".

But his weapon is potent. In 1995-96, he forced the Sena-BJP government in Maharashtra to drop two corrupt Cabinet Ministers. In 2003, he forced the Congress-Nationalist Congress Party (NCP) state government to set up an investigation against four ministers. In April this year, four days of fasting brought thousands of people out in support of his crusade against corruption. They also made the government realise it could not be dismissive about Anna Hazare and his mass appeal.

His relationship with the UPA government continues to be uneasy. The truce of April was short-lived. An exercise to set up a joint committee made up of equal numbers of government representatives and civil society activists, including Anna Hazare came to naught when the two sides failed to agree and drafted two different Lok Pal Bills. The government has brought its version in Parliament and Team Anna is livid.

The Gandhian is soldiering on. From one battle to another in his war against corruption. He fought from the front to have Right to Information (RTI) implemented. He is now fighting for the implementation of the Jan Lokpal Bill, the anti-corruption bill drafted by his team of crusaders.

This year, more than 30 years after Anna Hazare started his crusade, as the 74-year-old plans a second hunger strike in Delhi against large-scale corruption at the national level. Nothing really has changed except the scale of his battle.

Source

<http://www.annahazare.n.nu/>

Networking: Different tools for network simulation

1) OPNET

OPNET [\[OPNET\]](#) is the registered commercial trademark and the name of product presented by OPNET Technologies incorporation. It is one of the most famous and popular commercial network simulators by the end of 2008. Because of it has been used for a long time in the industry, it become mature and has occupied a big market share.

Overview

OPNET 's software environment is called ...†Modeler..., which is specialized for network research and development. It can be flexibly used to study communication networks, devices, protocols, and applications. Because of the fact of being a commercial software provider, OPNET offers relatively much powerful visual or graphical support for the users. The graphical editor interface can be used to

build network topology and entities from the application layer to the physical layer. Object-oriented programming technique is used to create the mapping from the graphical design to the implementation of the real systems. An example of the graphical GUI of OPNET can be seen in figure 1. We can see all the topology configuration and simulation results can be presented very intuitively and visually. The parameters can also be adjusted and the experiments can be repeated easily through easy operation through the GUI.

2) Network Simulator 2 (NS2)

NS2 is one of the most popular open source network simulators. The original NS is a discrete event simulator targeted at networking research. In this section, we will give a brief introduction to the NS2 system.

Overview

NS2 is the second version of NS (Network Simulator). NS is originally based on REAL network simulator .The first version of NS was developed in 1989 and evolved a lot over the past few years. The current NS project is supported through DARPA. The current second version NS2 is widely used in academic research and it has a lot of packages contributed by different non-benefit groups. For NS2 documentation on recent changes, refer to the NS 2 official webpage .

Main features

First and foremost, NS2 is an object-oriented, discrete event driven network simulator which was originally developed at University of California-Berkely. The programming it uses is C++ and OTcl (Tcl script language with Object-oriented extensions developed at MIT). The usage of these two programming language has its reason. The biggest reason is due to the internal characteristics of these two languages. C++ is efficient to implement a design but it is not very easy to be visual and graphically shown. It's not easy to modify and assembly different components and to change different parameters without a very visual and easy-to-use descriptive language. Moreover, for efficiency reason, NS2 separates control path implementations from the data path implementation. The event scheduler and the basic network component objects in the data path are written and compiled using C++ to reduce packet

and event processing time. OTcl happens to have the feature that C++ lacks. So the combination of these two languages proves to be very effective.

Network Simulator 3 (NS3)

Similar to NS2, NS3 is also an open sourced discrete-event network simulator which targets primarily for research and educational use. NS3 is licensed under the GNU GPLv2 license , and is available for research and development.

Overview

NS3 is designed to replace the current popular NS2 . However, NS3 is not an updated version of NS2 since that NS3 is a new simulator and it is not backward-compatible with NS2.

Main features

The basic idea of NS3 comes from several different network simulators including NS2, YANS and GTNetS .The major difference lying between NS3 and NS2 includes:

- (1) **Different software core** : The core of NS3 is written in C++ and with Python scripting interface (compared with OTcl in NS2). Several advanced C++ design patterns are also used.
- (2) **Attention to realism** : protocol entities are designed to be closer to real computers.
- (3) **Software integration** : support the incorporation of more open-source networking software and reduce the need to rewrite models for simulation;
- (4) **Support for virtualization** : lightweight virtual machines are used. Figure 3 gives an example virtualization testbed of NS3

OMNeT++

Similar with NS2 and NS3, OMNeT++ is also a public-source, component-based network simulator with GUI support. Its primary application area is communication networks. OMNeT++ has generic and flexible architecture which makes it successful also in other areas like the IT systems, queuing networks, hardware architectures, or even business processes as well.

Overview

Like NS2 and NS3, OMNeT++ is also a discrete event simulator. It is a component-based architecture. Components are also called modules and are programmed in C++. The components are then assembled into larger components and models by using a high-level language. Its function is similar to that of OTcl in NS2 and Python in NS3. OMNeT++ also provides GUI support, and due to its modular architecture, the simulation kernel can be embedded into all kinds of different user s' applications. Figure 5 is an OMNeT++ GUI screenshot.

Editing and maintain By

Naren v tada

Assistant professor