



imfozime

CSE INFOZINE

Chief patron
Hon'ble justice Mr. V.Rengasamny
Administrator

Patron

Dr.P.Natarajan Principal

vice-patron
Dr. M. S.Saleemullah
vice-principal

Co-Patron

Mr.A.S. Kumaresan, HOD/CSE

Coordinators

G.Praveena, AP/CSE

B.Nagarajan, AP/CSE

Editor

Baskaran D

Final Year CSE

Editorial Committee

K.Faheem 3rd Year CSE K.Mani Maran 2rd Year CSE D.Lokesh 1st Year CSE S.Kalayarasu 1st Year CSE

Principal's Message



Dr.P.Natarajan

It is a great pleasure to see the creative expressions of students who had contributed to CSEINFOZINE.

PEC has grown abundantly in the recent past. It continues to sustain its growth.

People reading this magazine will realize the tremendous changes that are happening in the PEC campus. The magazine is presenting a glimpse of the growth of the institution on many fronts.

The college has been simply unstoppable in its progress as it has been actively involved in various activities that have brought to light the hidden talents of the college students and staff. The highly qualified and dedicated members of staff have always stood shoulder with the man-

agement and have carried out their duties with a level of commitment.

This magazine as recorded achievements such as: conferences attended by staff members and students, competitions won by the hugely talented students, innovative projects carried out by student with the guidance of staff, among others. They stand as a witness to the monumental efforts taken by the

management to make the college a centre of excellence in education and research. I wish the management, staff and

I wish the management, staff and students of the college success in their future endeavors

Vice-Principal's Message



Dr.M.S.Saleemullah

It is always a pleasure to be a part of a team which strives to bring out the talents of students and staff.

Priyadarshini College of Engineering has always been striving to keep itself ahead of the competition and the results are now for everyone to see.

The essential purpose of a Department magazine is to inform, engage, inspire and entertain a diverse readership - including alumni, parents, students, faculty, staff and other friends of the college - by tell

-ing powerful stories that present a compelling, timely and honest portrait of the college and its extended family.

imfozime

This magazine has made an earnest attempt in this direction and brought out certain aspects of the college to the eyes of the public so that they may understand and know the college even better.

I am sure the college will scale even greater heights in the years to come and serve many more millions in the society



Department of CSE KUMARESAN A S HOD

It is my pleasure to congratulate the team that has taken the initiative for producing this magazine.

It is great to find a considerable number of articles, poems and drawings that certainly prove that our staff and students are adequately equipped and possess necessary skill sets to express their talent.

Associate Professor:

VIJAYARANGAM S_{B.E,M.E}

I am happy to note that the magazine brought out in our college is of good quality and taste.

Hearty congratulations to the editorial team.

It is a matter of great pleasure for me to go through the wonderful contributions made by the students.

Associate Professor:

MALA V_{B.E,M.E}

Reading this magazine would definitely be an inspiration and motivation for all students and staff to contribute even more to the forthcoming issues.

I hope that everyone would continue to give their full efforts to keep the momentum and continue to enhance the standards of the magazine.

Associate Professor

SAMUNDEESWARI M B.E, M. Tech

This magazine is intended to bring out the hidden literary talents in the students and the teachers and to inculcate leadership skills among them.

The outside world will come to know about the caliber of the students and the faculty through this magazine.

I extend my thanks to all the contributors for their articles, poems and drawings.



CSE infozine CSE infozine CSE infozine CSE infozine CSE infozine CSE infozine CSE infozineCSE infozineCSE infozineCSE infozine

Dear readers

It gives us great pleasure to bring you the first issue of CSE INFOZINE, the Department magazine of PEC.

The name and fame of an department depends on the caliber and achievements of the students and teachers. The role of a teacher is to be a facilitator in nurturing the skills and talents of students.

This magazine is a platform to exhibit the literary skills and innovative ideas of teachers and students.

CSE INFOZINE presents the achievements of students and contributions of teachers

We would like to place on record our gratitude and heartfelt thanks to all those who have contributed to make this effort a success. We profusely thank the management for giving support and encouragement and a free hand in this endeavor. Last but not the least we are thankful to all the authors who have sent their articles. We truly hope that the pages that follow will make an interesting read.

CSE infozine CSE infozine

About the Institute:



Priyadarshini Engineering College flagship of Jai Barath Caritable Trust, was established in 1995 at vaniyambadi in vellore district of tamilnadu.

The college has been approved but all india council for technical Education, new delhi And affiliated to anna university, chennai

Priyadarshini Engineering College situated in the rural area of vaniyambadi ,vellore district is committed to the vision of developing itself into a multi campus, inter-disciplinary institution of excellence through symbiotic efforts and innovative practices of management and faculty to provide the student with an ambient environment ,ideal for the pursuit of knowledge and development carrier.







Vision

"T O INCULCATE IN THE YOUNG RURAL MINDS THE APTITUDE TO COMPLETE WITH THE QUALITY TECHNOCRATS"



Mission

"T O TNSTILL TECHNICAL SKILLS TO COMPETE IN THE SUSTAINBLE WORLD."

"T O IMPART HOLISTIC VALUE BASED TECHNICAL EDUCATION."

"T O INTENSIFY RESEARCH AND DEVELOPEMT (R&D) ACTIVITIES

IN TECHNOLOGCAL DEVELOPMENT."

"T O IMBIBE CORE VALUES OF LOVE FOR MOTHERLAND, PERFORMANCE OF DUTY, COMPASSION, TOLERANCE, HONESITY AND INTEGRITY"

MOTTO

Perseverance, Endurance, Commitment.

"கற்றலும், கற்றவை கேட்டலும், கேட்டதன்கண் நிற்றலும்"

About the Deparment:



The Department of Computer Science and Engineering (CSE) was established in the year 1995 with the mission to educate students from rural areas, so that they become enlightened individuals, improving the living standards of their families, industry and sociaty.

The Post Graduate Programme viz M.E - Computer Science and Engineering was introduced in the year 2014.

The department is equipped with well qualified and exeperienced faculty members to improve and enhance the knowledge of the student community.

The department has good computing facilities with latest and updated versions of software. The department conducts periodic workshop, seminar and conferences to help students, research scholars and industries to share a common platform and thereby strengthen the industry institution fusion. most of the faculty and stdunts are members of professional bodies like ISTE and CSI.







Programme Educational Objectives(PEOs):

PEO 1: Core Competence:

Graduates will be competent to design, develop and solve Engineering problems and shall have expertise in programming tools.

PEO 2: Breadth:

Graduates will acquire the skills required to be employed in National, international and Government organization.

PEO 3: Lifelong Learning:

Gradutes will be equipped with the skills to pursue higher education and be expert in their profession adopting lifelong learning.

PEO 4: Professionalism:

Graduates will have the ability to present and practice team based projects with professional ethics and social responsibility.

Programme Outcome (POs)

po 1: Engineering Knowledge

An ability to apply knowledge of computing, mathematics, science and engineering fundamentals appropriate to the discipline

Po 2: problem analysis:

An ability to analyze a problem, identify and formulate the copmuting requirement appropriate to its solution

Po 3: Design and Development of solution:

An ability to design, implement and evalute a computer - based system, process, component or program to meet desired needs with appropriate consideration for public health, saftely, cultural, societal and environmental considerations.

Po 4: Investigation of complex problems:

An ability to design and conduct experiments, as well as to analyze and interpret data.

Po 5: Modern Tool usage:

An ability to use current techniques, skills and moden tools necessary for computing practice.

Programme Outcome (POs)

PO 6: Engineering and society

An ability to analyze the local and global impact of computing on individuals, organization and society.

PO 7: Environment and Sustainability: Knowledge of contemporary issues.

PO 8: Ethics:

An understanding of professional, ethical, legal, security and social issues and responsibilities.

PO 9: Individual and Teanwork:

An ability to function effectively individually and on teams, including diverseand multidiclinary activites to accomplish a common goal.

PO 10: Communication:

An ability to communicate effectively with a range of audiences.

PO 11: Life Learning:

Recognition of the need for lifelong learning and an ability to engage in continuing professional development.

PO 12: Project Management and Finance:

An understanding of engineeing and management principles and apply these to one's own work, as a member and leader in a team to manage projects.



FROM THE EDITOR'S DESK

Dear students,

Hearty welcome to the newly launched CSE Department's First issue of the magazine for the academic year 2012-2013.

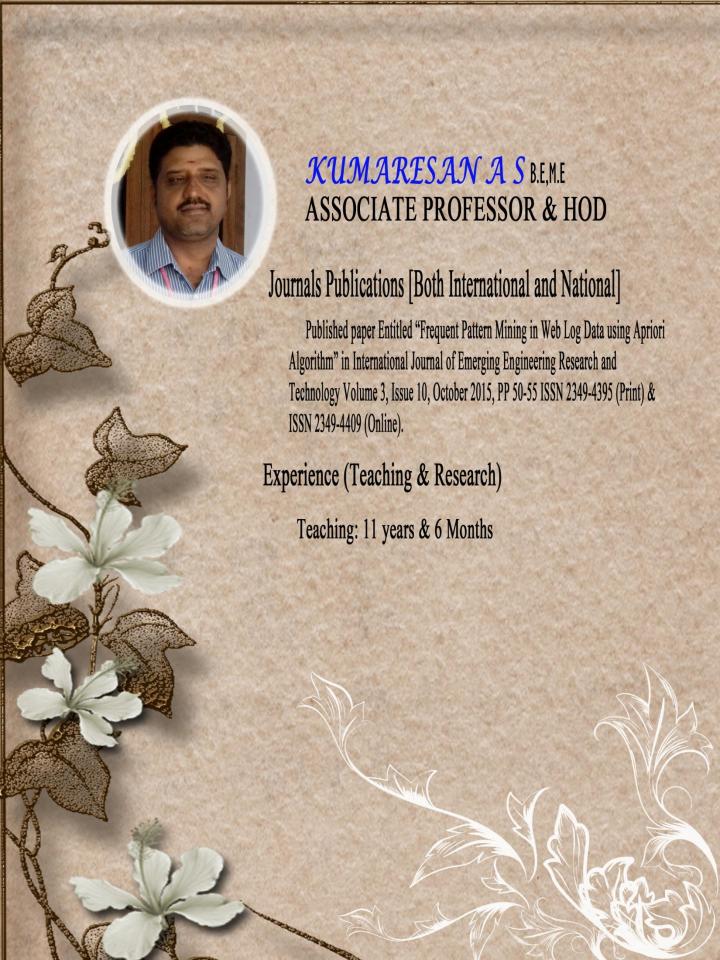
The objectives of the magazine is to mainly focus on the

Achievements of the Students and Faculty members from the CSE dept in Curricular, Cocurricular and Extra-curricular Activities.

The Recent trends in the area of Computer Science & Engineering and related areas.

I congratulate all my team members for their constant efforts in launching this magazine. We are Very Grateful to our Management and Principal for their Support and Encouragement.





Faculty Faculty



mala V B.E,M.E
ASSISTANT PROFESSOR

VÍJAYATANGAM S B.E,M.E
ASSISTANT PROFESSOR



samundeeswari M M.E,M.Tech
ASSISTANT PROFESSOR





Faculty Faculty



VANATHI A B.E,M.E ASSISTANT PROFESSOR

GOVINDI E B.E,M.E ASSISTANT PROFESSOR





PRAVETNA G B.E,M.E ASSISTANT PROFESSOR

SANTHOSH XUMAR (B.E,M.E ASSISTANT PROFESSOR



Faculty **Faculty**



NAGARAJAN R B.E,M.E ASSISTANT PROFESSOR

ANANDA KUMARI A B.E,M.E ASSISTANT PROFESSOR



Babu S B.E,M.E ASSISTANT PROFESSOR

GIRIJA V MSC,M.E. ASSISTANT PROFESSOR



Faculty Faculty



SURESH S B.Tech,M.E ASSISTANT PROFESSOR

MEGALAI J B.E,M.E
ASSISTANT PROFESSOR





J. Aruna Deepika B.E.M.Tech
ASSISTANT PROFESSOR

sudhakar R B.E,M.E
ASSISTANT PROFESSOR



Faculty **Faculty**



A.ManiXandan M.E.M.Tech
ASSISTANT PROFESSOR

V. Víjayalakshmí m.E,M.Tech

ASSISTANT PROFESSOR

ADavid Jothi Doss M.E.M.Tech
ASSISTANT PROFESSOR







Final Year Students Final Year Students Ramya R 8.10% US Sandhiya 8.10% Madhan Kumar M 7.91% Shalini L 7.88%





Lubna Afreen 8.51%

In dhumathi A 8.40%

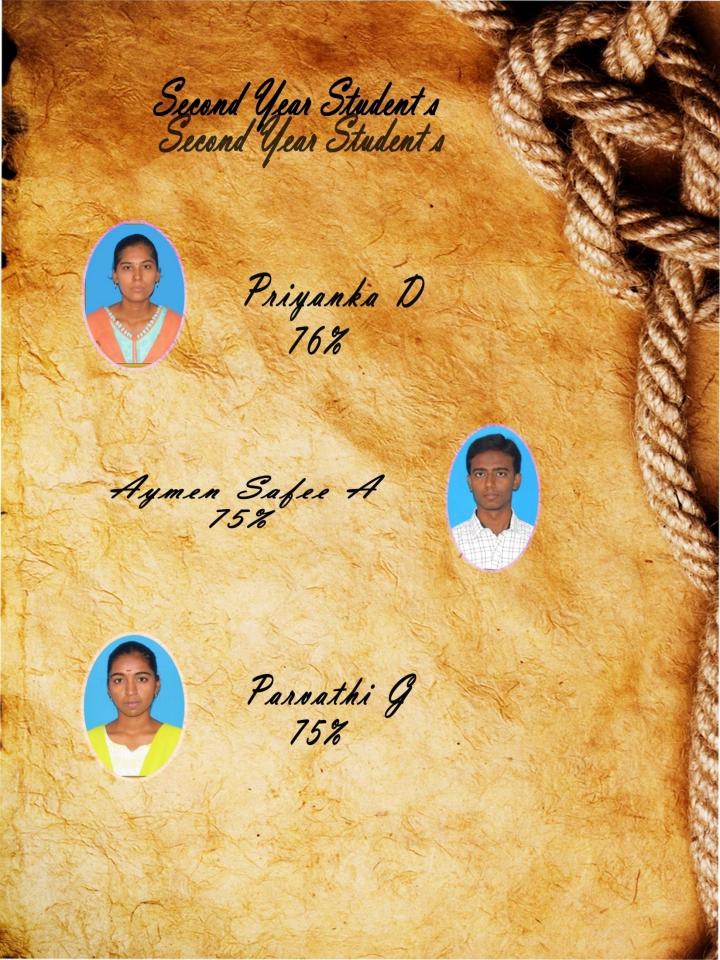




Syeda Tagdees Ambreen 8.30%

Shreedevi R 8.10%





Computer Science and Engineering Technical Articles

India's current status in the field of supercomputers

Today India is certainly giving the western countries a run for their money where supercomputing is concerned. India has been ranked number four in the world, in a global list of countries with the most powerful supercomputers. Only the US, China and Germany are ahead of India in the first, second and third slots.

Today the supercomputer facility at Computational Research Laboratories (CRL) has been ranked as the 4th fastest supercomputer in the world and fastest supercomputer in Asia. Called EKA (the Sanskrit name for number one), the supercomputer built at the CRL facility at Pune, India, marks a milestone in India's effort to build an indigenous high performance computing solution. In the supercomputer segment (The performance criteria is minimum of 1.71 TFlops) India can boast of fifteen such machines of which five systems are from Centre for Development of Advance Computing (CDAC), proving its status as a leading high performance computing centre in the nation.



ASSISTANT PROFESSOR $Babu\ S_{B.E,M.E}$

Such computing facilities are essential for any country's growth in fields like defense, meteorology, remote sensing, statistical analysis etc. it offers a centralized facility for large computational requirement. Strategic analysis essential for the defense of the country is not possible without the help of supercomputers. Computers are very helpful to meteorologists because they provide images and maps which help in weather prediction. Computers also help meteorologists build numerical weather models that can predict future weather patterns. Computers take all the information from weather stations, satellites, and weather balloons and convert it into weather maps. Image analysis of the maps obtained from remote sensing requires very high computing capability. Supercomputers are also helpful for policy makers and statisticians who can get their enormous data analyzed to suit their requirements.

K-Yan: The Compact Media Centre

New generation communication technologies allow creation of novel media products that can serve the community at large. Such products must be robust, and possess simple and universal interfaces. Prof Kirti Trivedi of IDC has developed K-Yan, such a compact media product for community use. It combines the functions of: a multimedia and internet enabled PC, large format television, DVD/VCD/CD player, CD writer, video-conference device, LCD data projector, and an audio system that facilitates shared viewing and participation by users.



Launched in March 2004, K-Yan has been demonstrated to several Chief Ministers, and senior state and central government officials. K-Yan is easy to use, has multilingual facilities, and eliminates the need for investing in other media hardware. A single unit can cater to the teaching needs of entire class. an substantially reduce the cost of computerizing schools. The integration of various functions not only allows students to learn how to use a computer, but also subjects, and crafts.

The product will also be useful in other group learning or information dissemination programs like healthcare, family planning, agricultural practices, and civic awareness drives.

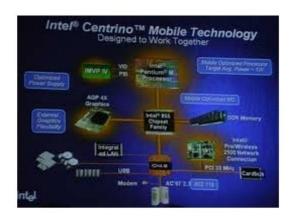
K-Yan is equipped with extra solar energy-based portable power supply to enable use in areas with no electricity. Mounted on a van, it can also function as a mobile communication centre from remote locations. With an internet connection and a web camera, it would allow low cost web-conferencing from any location making it useful in disaster management or project progress monitoring. The web-conferencing feature will also be useful in e-governance, as it will facilitate direct communication between various agencies and the administration. K-Yan has evoked enthusiastic response and is on the way to becoming a major commercial success.

A.ManiKandan Assistant professor CSE

Intel Centrino Mobile Technology

Intel Centrino mobile technology connects without wires. The new Intel Centrino mobile technology allows users to work, play and connect without wires and choose from a whole new generation of thin and light notebook PCs that are designed to enable extended battery life. With Intel Centrino mobile technology, three components work together to deliver a breakthrough in freedom and capability to work, learn and play on the go.

ine intel rentium-ivi processor manufactured advanced 0.13 micron process Technology. In **Highest** the Frequency Mode (HFM), the notebook PC can achieve high performance and in the Lowest Frequency Mode (LFM) the power consumption is reduced and enables extended battery life. Some key features of the Pentium-M processor Micro-architecture includes Micro-op Fusion. Advanced Instruction **Prediction** and SpeedStep.



____ ev ()

The Intel Pentium-M processor is a higher performance, lower power mobile processor with several micro-architectural enhancements over existing Intel mobile processors. Some key features of the Intel Pentium-M processor Micro-architecture include Dynamic Execution, 400-MHz, on-die 1-MB second level cache with Advanced Transfer Cache Architecture, Streaming SIMD Extensions 2, and Enhanced Intel SpeedStep technology. The Intel Centrino mobile technology also includes the 855GM chipset components GMCH and the ICH4-M.

RAMYA. P IV Year CSE

Graphical Passwords Authentication

The most common computer authentication method is to use alphanumerical usernames and passwords. This method has been shown to have significant drawbacks. For example, users tend to pick passwords that can be easily guessed. On the other hand, if a password is hard to guess, then it is often hard to remember.

To address this problem, some researchers have developed authentication methods that use pictures as passwords. In this paper, we conduct a comprehensive survey of the existing graphical password techniques. We classify these techniques into two categories: recognition-based and recall-based approaches. We discuss the strengths and limitations of each method and point out the future research directions in this area.

We also try to answer two important questions: graphical passwords as text-based as secure passwords? What the maior are design implementation issues for graphical passwords? In this paper, we are conducting a comprehensive survey of graphical image password authentication techniques. Also we are here proposing a new technique for graphical authentication.

> ABHISHEK R IV Year CSE

Multi Touch Technology

Multi-touch technology is an advanced humancomputer interaction technique that recogonises multiple touch points and also includes the hardware devices that implement it, which allow users to compute without conventional input devices. Multi-touch consists of a touch screen (screen, table, wall, etc.) or touchpad, as well as a software that recognizes multiple simultaneous touch points, as opposed to the standard touchscreen which recognizes only one touch point at a time.

Multi touch using Frustrated Total Internal Reflection is a simple, inexpensive, and scalable technique for enabling high-resolution multi- touch sensing on rear-projected interactive surfaces. Different applications for multi-touch interfaces both exist and are being proposed. Some uses are individualistic eg iPhone, iPod touch, MacBook Pro, MacBook Air. The use of multi-touch technology is expected to rapidly become common place.

A touch screen is a display which can detect the presence and location of a touch within the display area. The term generally refers to touch or contact to the display of the device by a finger or hand. Touch screens can also other passive sense objects, such as a stylus. However, if the object sensed is active, as with a light pen.



Darmendar III Year CSE



WEB Operating System



One of the hottest topics that emerged these days between the area of Internet and distributed computing and the area of operating system is Web Operating System (WOS). The objective of WOS is to deliver the full benefit of the World Wide Web. WOS will include mechanisms for resource discovery, resource collaboration, persistent storage, remote process execution. resource management, authentication and security. Web operating systems can simplify collaborative projects. Many Web operating systems allow users to share files.

A Web OS allows you to access applications stored not on your computer, but on the Web. The applications exist wholly or in part on Web servers within a particular provider network.

WOS is designed as a distributed system. The WOS framework enables a new paradigm for Internet services. Internet computing resources and all the way to the client. WOS goal is to provide a platform which allows the user to benefit from the computational potential offered by the web. It's aimed is to make available to all sites of the network resources to execute computations for which local resources are missing.

This paper presents an overview of a typical WOS. It describes the WOS process, components, communication protocols. Additionally, the paper discusses all the resolved and unresolved issues and difficulties surrounding the implementation and design of WOS

Development of single operating new enabling system global computing is a hot issue days. Such these operating system is called Web **Operating** System, or WOS. Major Internet users use WOS to download files, execute of servers programs remotely, fetching client scripts, etc. The common model of these services consists of client-server or master-slave configuration with a network as media. transportation **WOS** offers variety of services services. These software could be (computation, hardware communication channels. capacity, storage specialised drivers, etc.). The use of web resources highly motivated by different reasons. These include reliability, vailability, fault tolerance, load sharing, function sharing, and performance aggregation.

The many various applications real exhibit verv different requirements. For example, 3D animation rendering is massively matrices To take computation. advantage of distributed infrastructure, mechanisms efficient resource management and access are needed. However, the heterogeneous dynamic nature of the web infrastructure ensures that it is impossible to provide a complete catalog of resources available on the Therefore, approaches are needed which take into account inherently decentralised and dynamic properties of the Internet and distributed system in general. In order to meet need for requirements, WOS has a framework for supporting applications that geographically distributed, highly available, incrementally scalable, and dynamically reconfiguring. It will also include features for resource discovery, resource collaboration, persistent storage, remote execution, process resource management, authentication and security.



Aravind Kumar III Year CSE

Automatically Generating Models for Botnet Detection



A botnet is a network of compromised hosts that is under the control of a single, malicious entity, often called the botmaster. We present a system that aims to detect botinfected machines, independent of any prior information about command and control channels or propagation vectors, and without requiring multiple infections for correlation. Our system relies on detection that target models characteristic fact that every bot receives commands from the botmaster to which it responds in a specific way.

As the popularity of the Internet increases, the does number miscreants who abuse the net for their nefarious purposes. A popular tool of choice for criminals today are bots. A bot is a type of malware that is written with the intent of compromising and taking control of hosts on the Internet. It is typically installed on the victims computer by either exploiting a software vulnerability in the web browser or the operating system, or by using social engineering techniques to trick the victim into installing the bot herself.

Compared to other of malware, the types distinguishing characteristic of a bot is infected machines that are combined under the control of a single, malicious entity (called the botmaster) are referred to as a botnet. Such botnets often abused platforms to launch denial of service attacks to send spam mails or to host scam pages.

Traditional means of defense against bots rely on antivirus (AV) software installed on end-users machines. Unfortunately, as the existence of numerous botnets demonstrates, these systems are insufficient. The reason is that they rely on signatures of known samples, a well-documented limitation that makes it difficult to keep up with the fast evolution of malware. To mitigate this limitation, a number of hostbased defense systems have been introduced.

These systems use static or dynamic code analysis techniques to capture the behaviour of unknown programs. By comparing the observed behaviour to a model that specifies characteristics of certain types of malware, previously unknown instances of malicious code can be identified. However, although useful, these systems are problematic in practice, as they incur a consider- able runtime overhead and requir each user to install the analysis platform.

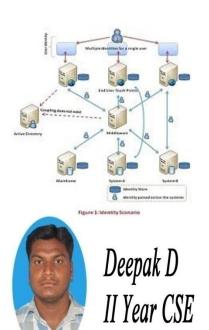


Ganesh Babu J R II Yeaar CSE

Hadoop Technologies

Computing in its purest form has changed hands multiple times. First, from near the beginning mainframes were predicted to be the future of computing. Indeed mainframes and large scale machines were built and used, and in some circumstances are used similarly today. The trend, however, turned from bigger and more expensive, to smaller and more affordable commodity PCs and servers.

Most of our data is stored on local networks with servers that may be clustered and sharing storage. This approach has had time to be developed into stable architecture, and provide decent redundancy when deployed right. A newer emerging technology, cloud computing, has shown up demanding attention and quickly is changing the direction of the technology landscape. Whether it is Google unique and scalable Google File System, or Amazons robust Amazon S3 cloud storage model, it is clear that cloud computing has arrived with much to be gleaned from. Cloud computing is a style of computing in which dynamically scalable and often virtualize resources are provided as a service over the Internet.



Whether it is Google unique and scalable Google File System, **Amazons** robust Amazon S3 cloud storage model, it is clear that cloud computing has arrived with much to be gleaned from.Cloud computing is a style of computing in which dynamically scalable and often virtualize resources are provided as a service over the Internet. Users need not have knowledge of, expertise in, or control over the technology infrastructure in the "cloud" that supports them.

___ ev 🖰 🖔

Haptics Technology

HAPTICS (pronounced HAP-tiks) is the science of applying touch (tactile) sensation and control to interaction with computer applications. By using special devices (joysticks, data gloves, or other devices), users can receive feedback from computer applications in the form of felt sensation in the hand or other parts of the body.

In combination with a visual display, haptics technology can be used to train people for tasks requiring hand eye coordination such as surgery and space ship maneuvers. It can also be used in games in which you feel as well as see your interactions with the images. For example, you might play tennis with another computer user somewhere else in the world. Both of you can see the moving ball, using the haptic device, position and swing your tennis racket and feel the impact of the ball.





Divya R I Year CSE

Toward a Passive Low-Cost In-Home Gait Assessment System for Older Adults

A webcam-based system for in-home gait assessment of older adults. A methodology has been developed to extract gait parameters including walking speed, step time, and step length from a 3-D voxel reconstruction, which is built from two calibrated webcam views. The gait parameters are validated with a GAITRite mat and a Vicon motion capture system in the laboratory with 13 participants and 44 tests, and again with GAITRite for 8 older adults in senior housing. Excellent agreement with intraclass correlation coefficients of 0.99 and repeatability coefficients between 0.7% and 6.6% was found for walking speed, step time, and step length given the limitation of frame rate and voxel resolution.

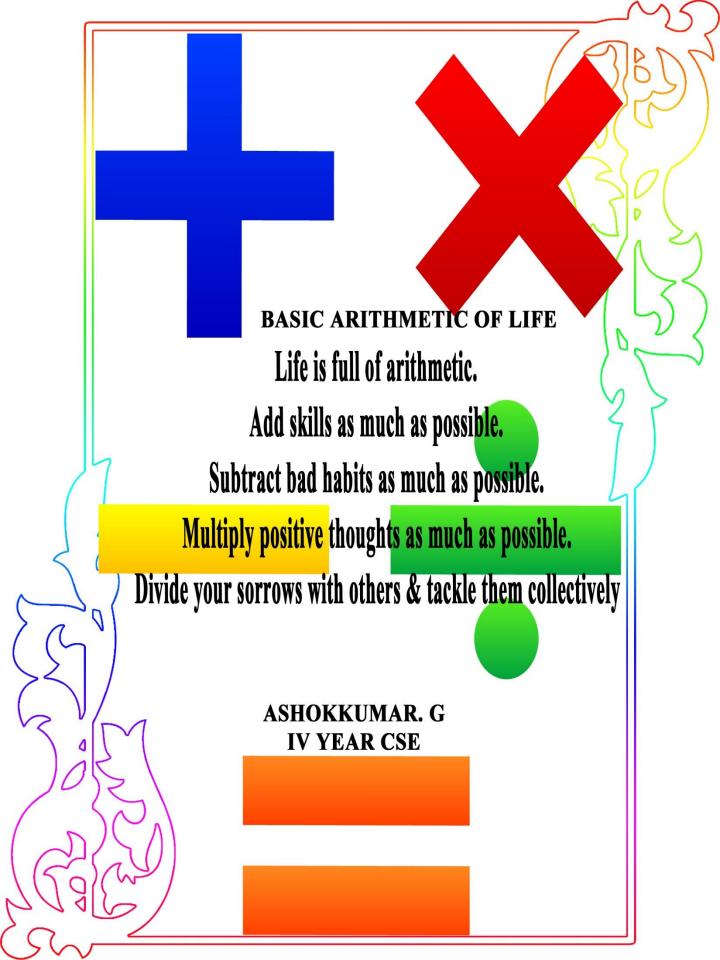


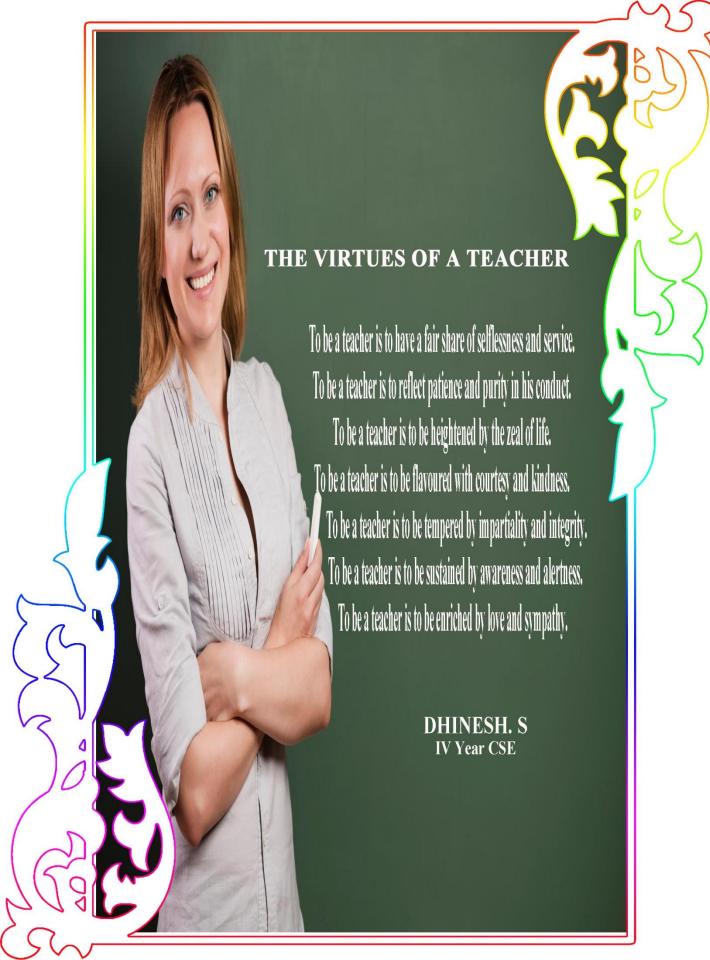
The system further was tested with ten seniors in a scripted scenario representing everyday activities in unstructured environment. The system results demonstrate the capability of being used as a daily gait assessment tool for fall risk assessment and other medical applications. Further more, we found that residents displayed different gait during their clinical patterns **GAITRite** tests compared the to realistic scenario, namely a mean increase of 21% in walking speed, a mean decrease of 12% in step time, and a mean increase of 6% in step length. These indings provide support for continuous gait assessment in the home for capturing habitual gait.



Udayayini M I Year CSE

Computer Science and Engineering English Poem







Do you know these cities?

The city that gives you a shock: Electricity
The city that goes fast: Velocity
The city that is wise: Sagacity
The city that is truthful: Veracity
The city that is eloquent: Loquacity

Thamodhiram II Year CSE



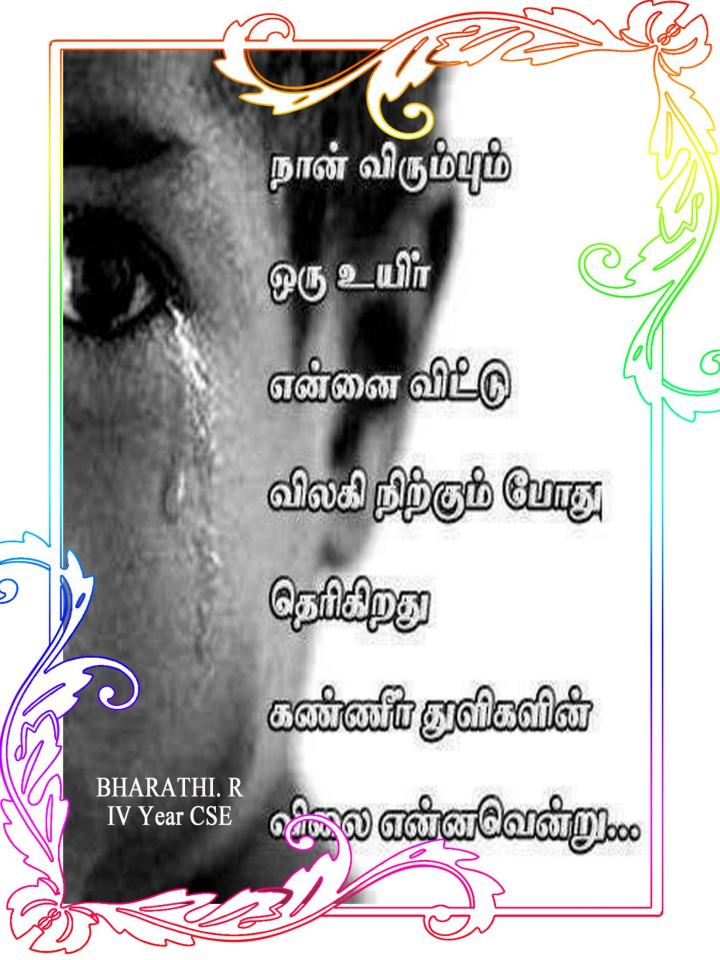
The Power of Words

Words, when used as knives,
Slice individuals into pieces;
They leave injuries in the heart
Cries and anguishes
That Time alone can heal.
Words, when abused, asunder people,
And make them repulsive;
But words, when properly attired,
Make wonders and build bridges
And bring people together.
Words, when rightly used,
Bring about changes in life,
And spread fragrance of life
Make us happily tuned to one another,
And establish joy, health, and creativity

Priya M I Year CSE

Computer Science and Engineering

Tamil Pakkam

















Computer Science and Engineering Visual Art



