Dhanekula Institute Of Engineering & Technology

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COMPUTER SCIENCE ENGINEERING

Tomorrow's World Through Today's Education

DEPARTMENT OF Computer Science

THE Leaflet

NEWSLETTER

VOLUME 6 (2019-2020)

issue. 3 (OCT-NOV)

NEWS LETTER

Principal's Message

Dear Parents and Students,

It is with great pleasure that I welcome you to our College (DIET) Newsletter.

As Principal I am hugely impressed by the commitment of the college and the staff in providing an excellent all-round education for our students with our state of the art facilities. We as a team working together, strongly promote the zeal towards academic achievement among our students. The cultural, sporting and other successes of all our students and staff are also proudly celebrated together.

I congratulate the staff and students who brought latest technologies and concepts onto the day to day teaching learning platform. As long as our ideas are expressed and thoughts kindled we can be sure of learning, as everything begins with an idea.

I appreciate every student who shared the joy of participation in co-curricular and extracurricular activities along with their commitment to curriculum. That little extra we do, is the icing on the cake. 'Do more than belong – participate. Do more than care – help. Do more than believe – practice. Do more than be fair – be kind. Do more than forgive – forget. Do more than dream – work.'

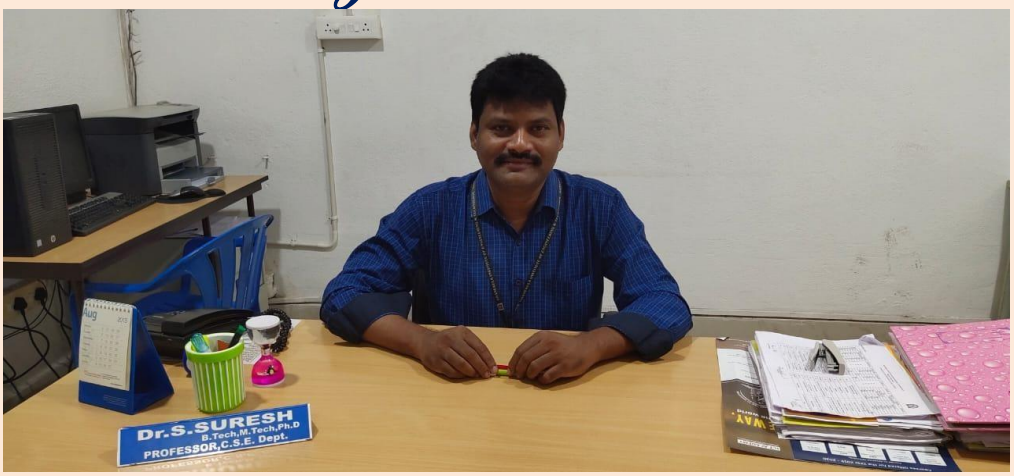
With a long and rewarding history of achievement in education behind us, our DIET community continues to move forward together with confidence, pride and enthusiasm.

I hope you enjoy your visit to the website and should you wish to contact us, please find details at the www.diet.ac.in

Yours in Education,

Dr.Ravi Kadiyala
Principal

Message From HOD



Dr. S. Suresh Professor & HOD,
Computer Science and Engineering

Greetings from the Department of CSE, Dhanekula Institute of Engineering & Technology, Vijayawada.!!!!

"It is a pleasure to be the head of the department of CSE. The department offers B-Tech (CSE) and M-Tech (CSE). The department has a team of highly experienced and motivated faculty members who are in process of tuning the young minds to make them globally competitive. The department is equipped with state-of-the-art laboratories where students can enhance their knowledge and skill. The strength of the department is highly motivated students who understand the dynamics of the industry and upgrade their skills accordingly. The scope of computer science is endless. The students of the computer science and engineering are highly demanded by the recruiters of the top companies. Depending upon the interest of the student, he/she may choose to go for higher studies or if employed can choose to do research, development, design, production, application, testing or management in the Information Technology industry. In our department we not only give emphasis on study but also apply our knowledge in understanding what computers are, how to efficiently program them, different tools and technologies, the interface between the computer and the user, the computer graphics, computer networking, managing the database, software engineering and testing them efficiently and more. Through innovative teaching-learning process a teamwork approach and leadership building experience, our students gain vital communication and critical-thinking skills. Our institution provides a platform for the students to enhance their employability skills through Industry Institute Collaboration."

I, Congratulate the team of faculty members and the students for their brilliant and original efforts. I wish all the Students and Faculty a great academic career.

Dr. S. Suresh Professor & HOD,
Computer Science and Engineering,
Dhanekula Institute of Engineering & Technology,
Vijayawada - 531 139.

Department Vision: To empower students of Computer Science and Engineering Department to be technologically adept, innovative, global citizens possessing human values.

Department Mission:

To Encourage students to become self-motivated and problem solving individual To prepare students for professional career with academic excellence and leadership skills. To Empower the rural youth with computer education. To Create Centre's of excellence in Computer Science and Engineer

Program Educational Objectives(PEOs)

PEO1: Excel in Professional career through knowledge in mathematics and engineering principles.

PEO2: Able to pursue higher education and research.

PEO3: Communicate effectively, recognize, and incorporate societal needs in their professional endeavors.

PEO4: Adapt to technological advancements by continuous learning.

DEPARTMENT ACTIVITIES:

CODING CLUB

In today's rapidly changing environment, programming skills are essential tools that can be utilized and incorporated into various fields and domains. Hence, it becomes absolutely essential to equip young minds with such skills. Coding Club aims to establish a coding culture on campus, reaching every student passionate about coding. The club's motto is to Create-Build-Innovate

The Department of cse conducting coding club. The club meets every week to discuss and work on projects. All the members collaborate to achieve a common objective. Lecture sessions are also organized for the benefit of members, where some concepts of computer science are taught. The club conducts a department wise coding competition every year to recruit the students who are passionate about coding. The competition not only focuses on coding but also on logical, analytical and problem solving skills.

Students receiving appreciation letters of coding club

STUDENTS ACHIEVEMENT:

It is proudly say that final year students was selected as software giants in Wipro .

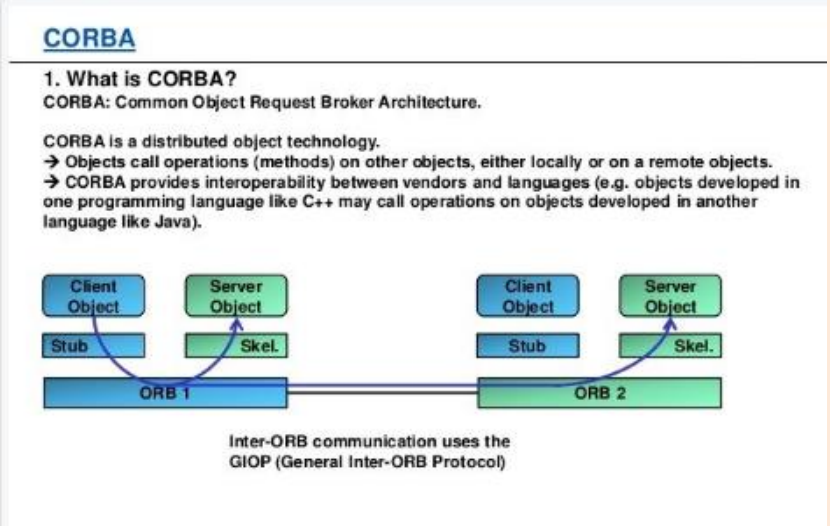
List of selected students for wipro

			
Md.Rehana 168T1A0561	M.Venkaeswarlu 168T1A0561	P.Sumanth 168T1A0582	V.Yamuna 168T1A05B0

STUDENTS ARTICLES

COBRA TECHNOLOGY

What is CORBA?
CORBA (Common Object Request Broker Architecture) is a distributed Object-oriented client/server platform.
It includes:
• An object-oriented Remote Procedure Call (RPC) mechanism
• object services (such as the Naming or Trading Service)
• Language mappings for different programming languages
• Interoperability protocols
• Programming guidelines and patterns
CORBA replaces ad-hoc special-purpose mechanisms (such as socket Communication)
with an open, standardized, scalable, and portable Platform.
OMG Common Object Request Broker Architecture (CORBA)



The Object Management Group's (OMG's) Common Object Request Broker Architecture (CORBA®) middleware standard enables software applications to invoke operations on distributed objects without concern for object location, programming language, operating system platform, communication protocols, interconnections or hardware
CORBA remains the most successful open standard in supporting distributed heterogeneous mission critical systems that require exceptional levels of performance and QoS. PrismTech's Open Fusion provides the most comprehensive range of CORBA middleware products available from any vendor
CORBA uses an interface definition language (IDL) to specify the interfaces that objects will present to the outside world. CORBA then specifies a "mapping" from IDL to a specific implementation language such as C++ or Java. Standard mappings exist for Ada, C, C++, Lisp, Smalltalk, Java, COBOL, PL/I and Python. There are also non-standard mappings for Perl, Visual Basic, Ruby, Erlang, Tcl and even VHDL implemented by object request brokers (ORBs) written for those languages
A language mapping requires the developer to create some IDL code that represents the interfaces to his objects. Typically, a CORBA implementation comes with a tool called an IDL compiler which converts the developer's IDL code into some language-specific generated code. A traditional compiler then compiles the generated code to create the linkable-object files for the application. the figure below illustrates how the generated code is used within the CORBA infrastructure
The CORBA specification dictates that there shall be an object request broker (ORB) through which the application interacts with other objects. In practice, the application simply initializes the ORB, and accesses an internal Object Adapter which maintains such issues as reference counting, object (& reference) instantiation policies, object lifetime policies, etc

The Object Adapter is used to register instances of the generated code classes. Generated Code Classes are the result of compiling the user IDL code which translates the high- level interface definition into an OS- and language-specific class base for use by the user application. This step is necessary in order to enforce the CORBA semantics and provide a clean user processes for interfacing with the CORBA infrastructure.

by

G.Pradeep Kumar,3rd cse-a,178T1A0527

DAROC Technology

DAROC is a middleware architectural model, which is loosely based upon on the blackboard model. This architecture will decrease distributed software development time by abstracting away much of the communication overhead and scheduling, which most software developers are burdened with in their application. This approach will still provide a flexible architectural framework that allow for modularity in its components, which then in turn facilitates overall system upgrades and modifications. The combination of reduced communication and synchronization overhead and flexibility will reduce software development time, which has a direct impact on the overall cost of development and testing

Objectives:

The short-term goal of DAROC is to provide a programming environment that will allow both undergraduate and graduate students the ability to gain some exposure and experience in programming distributed applications

The long-term goal is a bit more ambitious. The DAROC architecture will address problems such as distributed simulation and battle management scenarios.

Major DAROC Objectives:

Eliminate message-passing code implemented by the programmer, communication achieved by the reading and writing of objects on the blackboard

Eliminate control component, burden of scheduling is placed on the OS not on the application program

Activate functional elements in DAROC periodically or based on data changes when performing computations.

Reduce code complexity allowing an “average” programmer to rapidly develop distributed applications.

Capability for fault recovery via data replication

DAROC consists of two primary components; functional elements (FE) are active and perform computations and analyze the system state, and the blackboard, which is the structure that holds data objects (DO) that make up the blackboard. Unlike functional elements, data objects are passive and do not perform computations.

DAROC At A Glance:

The desire of DAROC is to empower programmers to be able to write components of distributed systems without being a distributed systems expert.

U.Bhavika,2nd cse,188T1A0556

LAMP Technology

LAMP is a shorthand term for a web application platform consisting of Linux, Apache, MySQL and one of Perl or PHP. Together, these open source tools provide a world-class platform for deploying web applications.

Running on the Linux operating system, the Apache web server, the MySQL database and the programming languages, PHP or Perl deliver all of the components needed to build secure scalable dynamic websites. LAMP has been touted as “the killer app” of the open source world.

With many LAMP sites running Ebusiness logic and Ecommerce site and requiring 24x7 uptime, ensuring the highest levels of data and application availability is critical. For organizations that have taken advantage of LAMP, these levels of availability are ensured by providing constant monitoring of the end-to-end application stack and immediate recovery of any failed solution components. Some also supports the movement of LAMP components among servers to remove the need for downtime associated with planned system maintenance.

The paper gives an overview of LINUX, APACHE, MYSQL, and mainly on PHP and its advantage over other active generation tools for interactive web design and its interface with the advanced database like MYSQL and finally the conclusion is provided.

It’s the development platform that determines the efficiency of an application. The choice of a wrong platform means the resultant application won’t match the specifications of the client in their entirety.

Businesses, these days, are not looking for just any application. They want an application that can improve their business processes and fast track their business growth. For this to happen, they need an application that can be easily integrated into their existing IT infrastructure and one that can be trusted to deliver a high performance.

With an aim to developing the best web applications, developers have increasingly started using LAMP. LAMP is a software bundle or stack that stands for Linux, Apache, MySQL and PHP, Perl or Python. I

It’s interesting to note that they were developed individually and at no point during the development of the software did the developers think about creating them for combined use. But, it was found that taken together, they offer an unbeatable stack of solutions driven technologies that support application servers.

Ch.Tanmai, 2nd cse,188T1A0511

Mobile Phone Cloning

Mobile communication has been readily available for several years, and is major business today. It provides a valuable service to its users who are willing to pay a considerable premium over a fixed line phone, to be able to walk and talk freely. Because of its usefulness and the money involved in the business, it is subject to fraud. Unfortunately, the advance of security standards has not kept pace with the dissemination of mobile communication.

Some of the features of mobile communication make it an alluring target for criminals. It is a relatively new invention, so not all people are quite familiar with its possibilities, in good or in bad. Its newness also means intense competition among mobile phone service providers as they are attracting customers. The major threat to mobile phone is from cloning.

What is Mobile Phone Cloning

Cell phone cloning refers to the act of copying the identity of one mobile telephone to another.

This is usually done to make fraudulent telephone calls. The bill for the calls go to the legitimate subscriber. This made cloning very popular in areas with large immigrant populations, where the cost to "call home" was very steep. The cloner is also able to make effectively anonymous calls, which attracts another group of interested law breakers.

Cell phone cloning started with Motorola "bag" phones and reached its peak in the mid 90's with a commonly available modification for Motorola "brick" phones such as the Classic, the Ultra Classic, and the Model 8000

Cloning involved modifying or replacing the EPROM in the phone with a new chip, which would allow one to configure an ESN (Electronic Serial Number) via software. The MIN (Mobile Identification Number) would also have to be changed.

Cloning still works under the AMPS/NAMPS system, but has fallen in popularity as older phones that can be cloned are more difficult to find and newer phones have not been successfully reverse engineered

Cloning has been successfully demonstrated under GSM, but the process is not easy and currently remains in the realm of serious hobbyists and researchers. Furthermore, cloning as a means of escaping the law is difficult because of the additional feature of a radio fingerprint that is present in every mobile phone's transmission signal. This fingerprint remains the same even if the ESN or MIN are changed. Mobile phone companies can use the mismatch in the fingerprints and the ESN and MIN to identify fraud cases

Voice Over Internet Protocol Using an ordinary phone for most people is a common daily occurrence as is listening to your favorite CD containing the digitally recorded music. It is only a small extension to these technologies in having your voice transmitted in data packets. The transmission of voice in the phone network was done originally using an analog signal but this has been replaced in much of the world by digital networks. Although many of our phones are still analog, the network that carries that voice has become digital.

In todays phone networks, the analog voice going into our analog phones is digitized as it enters the phone network. This digitization process, shown in Figure 1 below, records a sample of the loudness (voltage) of the signal at fixed intervals of time. These digital voice samples travel through the network one byte at a time.

Voice over Internet Protocol

VoIP, or “Voice over Internet Protocol” refers to sending voice and fax phone calls over data networks, particularly the Internet. This technology offers cost savings by making more efficient use of the existing network.

Traditionally, voice and data were carried over separate networks optimized to suit the differing characteristics of voice and data traffic. With advances in technology, it is now possible to carry voice and data over the same networks whilst still catering for the different characteristics required by voice and data

Voice-over-Internet-Protocol (VOIP) is an emerging technology that allows telephone calls or faxes to be transported over an IP data network. The IP network could be

A local area network in an office

A wide area network linking the sites of a large international organization

A corporate intranet

The internet

Any combination of the above

There can be no doubt that IP is here to stay. The explosive growth of the Internet, making IP the predominate networking protocol globally, presents a huge opportunity to dispense with separate voice and data networks and use IP technology for voice traffic as well as data. As voice and data network technologies merge, massive infrastructure cost savings can be made as the need to provide separate networks for voice and data can be eliminated.

Most traditional phone networks use the Public Switched Telephone Network(PSTN), this system employs circuit-switched technology that requires a dedicated voice channel to be assigned to each particular conversation. Messages are sent in analog format over this network.

Today, phone networks are on a migration path to VoIP. A VoIP system employs a packet-switched network, where the voice signal is digitized, compressed and packetized. This compressed digital message no longer requires a voice channel. Instead, a message can be sent across the same data lines that are used for the Intranet or Internet and a dedicated channels is no longer needed. The message can now share bandwidth with other messages in the network

Normal data traffic is carried between PC’s, servers, printers, and other networked devices through a company’s worldwide TCP/IP network. Each device on the network has an IP address, which is attached to every packet for routing. Voice-over-IP packets are no different.

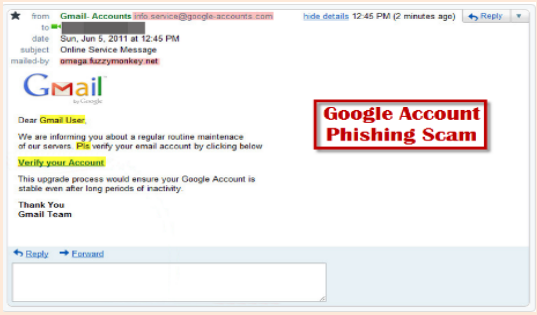
Users may use appliances such as Symbol’s NetVision phone to talk to other IP phones or desktop PC-based phones located at company sites worldwide, provided that a voice-enabled network is installed at the site. Installation simply involves assigning an IP address to each wireless handset.

VOIP lets you make toll-free long distance voice and fax calls over existing IP data networks instead of the public switched telephone network (PSTN). Today business that implement their own VOIP solution can dramatically cut long distance costs between two or more locations.

A.Harshitha,2nd cse,188T1A0511

Phishing Technology

In the field of computer security, phishing is the criminally fraudulent process of attempting to acquire sensitive information such as usernames, passwords and credit card details, by masquerading as a trustworthy entity in an electronic attempting to acquire sensitive information such as usernames, passwords and credit card details, by masquerading as a trustworthy entity in an electronic communication. Phishing is a fraudulent e-mail that attempts to get you to divulge personal data that can then be used for illegitimate purposes.



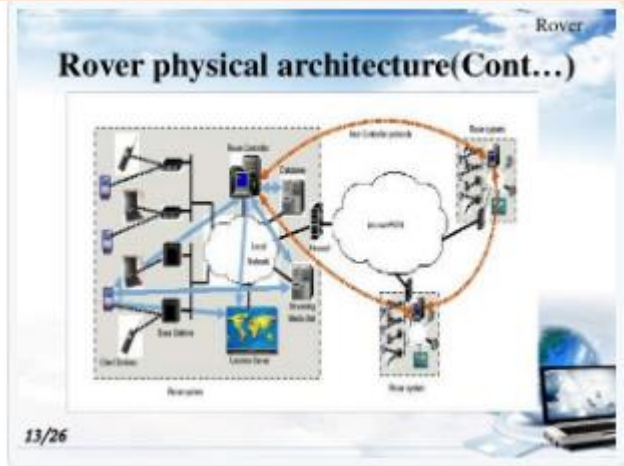
There are many variations on this scheme. It is possible to Phish for other information in additions to usernames and passwords such as credit card numbers, bank account numbers, social security numbers and mothers maiden names. Phishing presents direct risks through the use of stolen credentials and indirect risk to institutions that conduct business on line through erosion of customer confidence. The damage caused by phishing ranges from denial of access to e-mail to substantial financial loss.

U.Sirisha, Asst.Prof,Dept of CSE

Rover Technology

Location-aware computing involves the automatic tailoring of information and services based on the current location of the user. We have designed and implemented Rover, a system that enables location-based services, as well as the traditional time-aware, user-aware and device-aware services. To achieve system scalability to very large client sets, Rover servers are implemented in an action-based concurrent software architecture that enables fine-grained application-specific scheduling of tasks. We have demonstrated feasibility through implementations for both outdoor and indoor environments on multiple platforms.

A user is shopping in a mall. On entering a store, he pulls out a PDA and browses through detailed information about the products on display. Satisfied with the information, through the PDA, he makes an online purchase of the items of interest that will be subsequently shipped to his home directly. As he walks on to the next store, which happens to be a video rental store, information on newly-released movies in his favorite categories are downloaded automatically into his PDA, along with their availability information. He chooses a couple of these movies and indicates that he will pick them up at the storefront.



LOCATION AWARE COMPUTING COMES OF AGE

At the core of invisible computing is context awareness, the concept of sensing and reacting to dynamic environments and activities. Location is a crucial component of context, and much research in the past decade has focused on location-sensing technologies, location-aware application support, and location-based applications. With numerous factors driving deployment of sensing technologies, location-aware computing may soon become a part of everyday life.

LOCATION-SENSING TECHNOLOGIES

A central problem in location-aware computing is the determination of physical location. Researchers in academia and industry have created numerous location-sensing systems that differ with respect to accuracy, coverage, frequency of location updates, and cost of installation and maintenance.

By Y.Salini,Asst.Prof,Dept of CSE

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