



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(Approved by AICTE, Affiliated to JNTU, Hyderabad)
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VMTW INSIGHT

News Letter

Volume-3

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

“ Measuring programming progress by lines of code is like measuring aircraft building progress by weight ”

Many years humans have fantasized about x-ray vision and played with the concept in comic books and sci-fi movies.

EDITORIAL DESK

Hello!!! We are happy to welcome you all aboard the fledgling 3rd edition for the scintillating year 2016. VMTWINSIGHT is the newsletter of the COMPUTER SCIENCE & ENGINEERING which aims to bring forward the buzz from the department in the past few months. The edition demystifies the realms of Computer science & Engineering and also provides insight to the latest technology adopted in the field. Hope our deeds would ignite everyone's life!!!

HOD'S DESK

Dedicated to ensuring great careers for its students. For 3rd edition News Letter this means forging deeper industry linkages than ever before, creating a research culture from day one and ensuring seamless education using the best technology available anywhere. The excellent infrastructure, teaching faculty of the best kind of the Department ensuring quality education such as interaction among students, parents and staff, along with a Training and Placement Cell ensures a bright future to its students. The Department of CSE is striving hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence and provides platform for the students to achieve their career goals.

ABOUT DEPARTMENT OF CSE

The Department of Computer Science and Engineering (CSE) was established in the year 2008 with the aim of providing wide-ranging technology education to students from all over the country and thereby creating responsible citizens who would contribute to the betterment of their families, society and nation.

The future of Computing rests here. The department's mission is to value based professional education for a challenging career advance, evolve and enhance Computer Science and Engineering fundamentals to build the intellectual capital of the society. The CSE Department Endeavour's to be an important regional, resource center for the development of Computing and its applications. The department is witnessing a period of exciting growth and opportunity propelled by the growth of technology and its recognition through excellence. CSE boasts a vibrant student body of about 120 undergraduate students.

VISION

To achieve value oriented and quality education with excellent standards on par with evolving technologies and produce technocrats with capabilities of facing futuristic challenges.

MISSION

M1: To enrich advanced -

knowledge among students for reinforcing the domain knowledge and develop capabilities and skills to solve complex engineering problems.

M2: To impart value based professional education for a challenging career in Computer Science and Engineering.

M3: To transform the graduates for contributing to the socio-economic development and welfare of the society through value based education

PROGRAM EDUCATIONAL OBJECTIVES(PEOS):

PEO1: To acquire logical and analytical skills in core areas of Computer Science & Information Technology.

PEO2: To adapt new technologies for the changing needs of IT industry through self-study, graduate work and professional development.

PEO3: To demonstrate professional and ethical attitude, soft skills, team spirit, leadership skills and execute assignments to the perfection.

PROGRAM SPECIFIC OUTCOMES (PSOS):

PSO1: Foundation on Software Development: Analyze, design and develop efficient algorithms and software applications to deploy in secure environment to support contemporary services.

PSO2: Industrial Skills Ability: Develop software -

solutions using open source environment to deliver quality products for business success.

PSO3: Ethical and Social Responsibility: Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show the understanding of impact of engineering solutions on the society and also will be aware of contemporary issues.

FACULTY TECHNICAL ARTICLE BY

Title Name: **Green Computing**
by **Dr. CHARLES BABU**

STUDENT TECHNICAL ARTICLE BY

Title Name: **WI-VI**
by **BAGANI SRAVANTHI**

CULTURAL ACTIVITIES

- UGADI FESTIVAL CELEBRATION
- HOLI CELEBRATION
- YOGA DAY

CAREER GUIDANCE ON

- EMPLOYABILITY ENHANCEMENT
- NEW IDEAS ON PROFESSION
- INTERNSHIPS
- PREPARE FOR INTERVIEWS
- SOFT SKILLS
- APTITUDE SKILLS
- SKILL DEVELOPMENT PROGRAMME

INTERNSHIP

“Internships
we have completed
demonstrate
what we
know
-future projects
decide what
we will learn.”

Cont...

Faculty Technical Article : Title - Green Computing

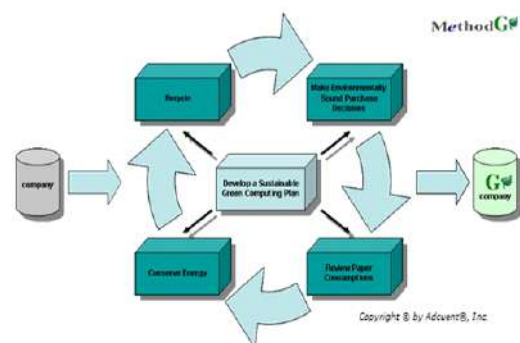
Written By **Dr. CHARLES BABU**

INTRODUCTION

Green computing, green IT or ICT Sustainability, refers to environmentally sustainable computing or IT. In the article Harnessing Green IT: Principles and Practices, San Murugesan defines the field of green computing as "the study and practice of designing, manufacturing, using, and disposing of computers, servers, and associated subsystems—such as monitors, printers, storage devices, and networking and communications systems – efficiently and effectively with minimal or no impact on the environment.

What is a thin client?

A thin client (sometimes also called a lean or slim client) is a computer or a computer program which depends heavily on some other computer (its server) to fulfill its traditional computational roles. This stands in contrast to the traditional fat client, a computer designed to take on these roles by itself. The exact roles assumed by the server may vary, from providing data persistence (for example, for diskless nodes) to actual information processing on the client's behalf. Thin clients occur as components of a broader computer infrastructure, where many clients share their computations with the same server. As such, thin client infrastructures can be viewed as the amortization of some computing service across several user-interfaces. This is desirable in contexts where individual fat clients have much more functionality or power than the infrastructure either requires or uses. This can be contrasted, for example, with grid computing.



Thin-client computing is also a way of easily maintaining computational services at a reduced total cost of ownership. The most common type of modern thin client is a low-end computer terminal which concentrates solely on providing a graphical user interface to the end-user. The remaining functionality, in particular the operating system, is provided by the server. Thin clients have their roots in multi-user systems, traditionally mainframes accessed by some sort of terminal computer. As computer graphics matured, these terminals transitioned from providing a command-line interface to a full graphical user interface, as is common on modern thin clients. The prototypical multiuser environment along these lines, UNIX, began to support fully graphical X terminals, i.e., devices running X server software, from about 1984. X terminals remained relatively popular even after the arrival of other thin clients in the mid-late 1990s. Modern UNIX derivatives like BSD and GNU/Linux continue the tradition of the multi-user, remote display/input session. Typically, X server software is not made available on thin clients; although no technical reason for this exclusion would prevent it. Windows NT became capable of multi-user operations primarily through the efforts of Citrix Systems, which repackaged NT 3.5.1 as the multi-user operating system Win Frame in 1995. Microsoft licensed this technology back from Citrix and implemented it into Windows NT 4.0 Terminal Server Edition, under a project codenamed "Hydra". Windows NT then became the basis of Windows 2000 and Windows XP. As of 2011 Microsoft Windows systems support graphical terminals via the Remote Desktop Services component. The term thin client was coined in 1993 by Tim Negriss, VP of Server Marketing at Oracle Corp., while working with company founder Larry Ellison on the launch of Oracle 7. At the time, Oracle wished to differentiate their server-oriented software from Microsoft's desktop-oriented products. Ellison subsequently popularized Negriss's buzzword with frequent use in his speeches and interviews about Oracle products. Size comparison - traditional Desktop PC vs. Clientron U700

Client Simplicity:

Since the clients are made from low-cost hardware with few moving parts, they can operate in more hostile environments than conventional computers. However, they inevitably need a network connection to their server, which must be isolated from such hostile environments. Since thin clients are cheap, they offer a low risk of theft in general, and are easy to replace if stolen or broken. Since they do not have any complicated boot images, the problem of boot image control is centralized to the server. On the other hand, to achieve this simplicity, thin clients sometimes lag behind thick clients (PC Desktops) in terms of extensibility. For example, if a local software utility or set of device drivers are needed in order to support a locally attached peripheral device (e.g. printer, scanner, biometric security device), the thin client operating system may lack the resources needed to fully integrate the needed dependencies. Modern thin clients attempt to address this limitation via port mapping or USB redirection software. However, these methods cannot address all use case scenarios for the vast number of peripheral types being put to use today.

Student Technical Article : Title - WI-VI Written by BAGANI SRAVANTHI

INTRODUCTION

Can Wi-Fi signals enable us to see through walls? For many years humans have fantasized about X-ray vision and played with the concept in comic books and sci-fi movies. This paper explores the potential of using Wi-Fi signals and recent advances in MIMO communications to build a device that can capture the motion of humans behind a wall and in closed rooms. Wi-Vi shares the objectives of these devices; however, it introduces a new approach for eliminating the flash effect without wideband trans-mission. This enables it to work with concrete walls and solid wood doors, as well as fully closed rooms. The only attempt which we are aware of that uses Wi-Fi signals in order to see through walls was made in [1]. This system required both the transmitter and a reference receiver to be inside the imaged room. Furthermore, the reference receiver in the room has to be connected to the same clock as the receiver outside the room. In contrast, Wi-Vi can perform through-wall imaging without access to any device on the other side of the wall. Wi-Vi uses interference nulling to cancel both the wall reflections and the direct signal from the transmit to the receive antenna. To eliminate flash, a sample x is transmitted on each transmit antenna separately and the ratio p is calculated. Then x and px are transmitted concurrently to get the perceived channel at the receiver. The process repeats until channel estimates in step 1 are perfect so that the received signal is zero.

Tracking A Single Human

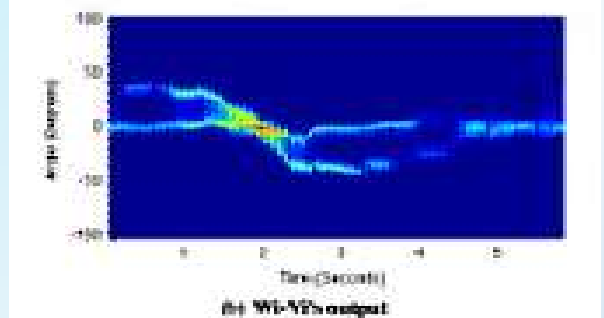
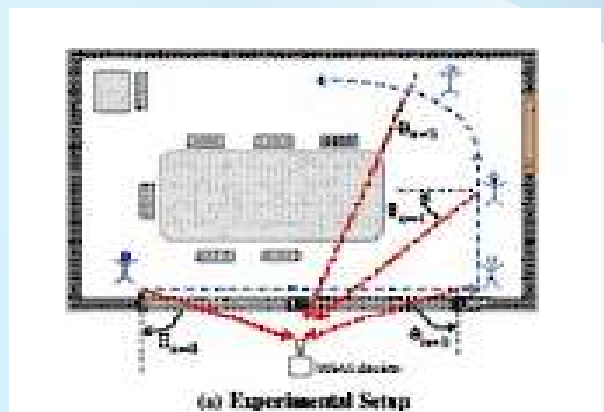
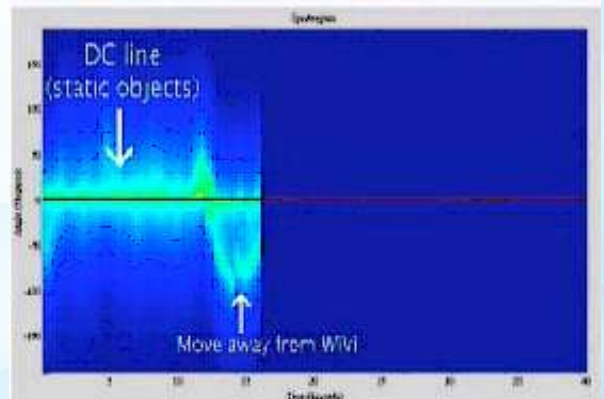
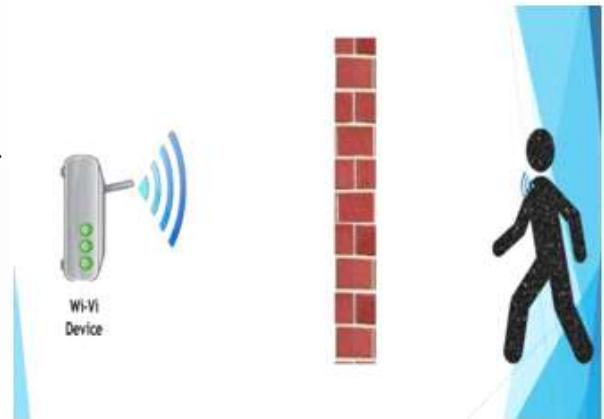
This is a demonstration of the technology that makes use of Wi-Fi to let the users 'see' a person moving behind a wall. The name is a combination of Wi-Fi and vision; get that? Wi and Vi combined! It has been proven that delicate reflections of wireless inter signals that bounce off a human can be used to track the person's movements. However, these methods were tiresome and required either a Wi-Fi router in the same room as the person or as Professor Katabi puts it; 'a whole truck just to carry the radio'. Now that we have eliminated the impact of static objects in the environment, we can focus on tracking moving objects. We will refer to moving objects as humans since they are the primary subjects of interest for our application; however, our system is general, and can capture other moving bodies. Below, we first explain how Wi-Vi tracks the motion of a single human.

Tracking Multiple Humans

In this section, we show how Wi-Vi extends its tracking procedure to multiple humans. Our previous discussion about using human motion to emulate an antenna array still holds. However, each human will emulate a separate antenna array. Since Wi-Vi has a single antenna, the received signal will be a superposition of the antenna arrays of the moving humans. In particular, instead of having one curved line at any time, there will be as many curved lines as moving humans at that point in time. However, with multiple humans, the noise increases significantly. On one hand, each human is not just one object because of different body parts moving in a loosely coupled way. On the other hand, the signal reflected off all of these humans is correlated in time, since they all reflect the transmitted signal. The lack of independence between the reflected signals is important. For example, the reflections of two humans may combine systematically to dim each other over some period of time.

CONCLUSION:

High quality images. Future Scope Evolution of seeing humans through denser building material and with a longer range. Wi-Vi could be built into a Smartphone or a special handheld device. Wi-Vi, a wireless technology that uses Wi-Fi signals to detect moving humans behind walls and in closed rooms. In contrast to previous systems, which are targeted for the military, Wi-Vi enables small cheap see-through-wall devices that operate in the ISM band, rendering them feasible to the general public, without carrying any transmitting device.



UGADI FESTIVAL CELEBRATION:

Students of the Vmtw College celebrated Chandramana Ugadi on Friday. Nearly 100 students, and faculty members, celebrated the festival. Traditional prasadam, puliyogarai, kaaja bobbatlu (Bhakshalu/ polelu/ oligalu), and Ugadi Pachadi were prepared by students. There was a mass prayer and pooja. The students gathered to listen to the recitation of the religious Panchangam (Panchanga Sravanam) of the New Year.



HOLI CELEBRATION



INTERNSHIPS

S.No.	Roll No.	Organization Name	Duration	Location
1	12UP1A0501	Coign	3 months	Hyderabad
	12UP1A0503			
	12UP1A0516			
2	12UP1A0539	E nexus	3 months	Hyderabad
	12UP1A0515			
	12UP1A0512			
3	12UP1A0534	Coign	3 months	Hyderabad
	12UP1A0509			
	12UP1A0522			
4	12UP1A0561	E nexus	3 months	Hyderabad
	12UP1A0582			
	12UP1A0583			