

# Bits & Bytes

CSE E-NEWSLETTER

VOLUME 1 - ISSUE 1 JULY-DECEMBER 2017

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### *About Department :*

**A** hard working student community, a committed faculty and a very healthy work-culture are the basic elements that comprise the Department of Computer Science, the hub of the institute's academia. We hold firm belief in our ability to succeed, and we nurture an attitude of self-reliance, confidence, commitment and responsibility to the motherland that we are to server. Such is the psychology behind the young and dynamic Computer Science department.

The Department of Computer Science and Engineering educates and conducts research covering wide areas of information science, from fundamental technologies such as software design, object oriented programming, computer architecture, database system, discrete mathematics, and Internet technologies, which support infrastructures of the highly information-oriented society, to applied and advanced technologies including multimedia, robotics, computer vision, data mining, human-machine interface design, bioinformatics, computational science, life science, disturbed computing, and theoretical computer science.

To achieve our mission, we provide attractive educational programs for students to learn from the basics to advanced technologies related to computer science and engineering. Through our educational programs students are expected to become leading engineers and researchers who are highly motivated and are have practical knowledge, creativity and management skills to drive an advanced next-generation information society in all industrial fields.

# DIRECTOR'S DESK



**DR. VIKAS MISRA**

At the outset, we congratulate the CSE department and specially the newsletter committee member for their efforts in bringing out the newsletter. Newsletter is an amalgamation of all the events held in department and it plays an instrumental role in providing a greater exposure of the achievements accomplished by the students. This newsletter is a medium that will bridge the gap between achievements and publicity. Activities publishes in the newsletter are sufficient to prove my claim that GITS is progressing at an exponential rate. Signing off with a quotation

**"If you want to go fast, walk alone.**

**If you want to go far, walk together"**



# HOD'S DESK



## DR. V. R. RAGHUVVER

As students are a member of a progressive society, the teachers shall not fight today **"battle with yesterday's weapon, but they must prepare them to face all the eventualities of life"**.

Thus, teachers are the architectures of a country. Consequently, the true education should deepen our insight, widen our horizon and create a meaningful outlook. Equally the students are fortunate enough to have born in a free nation, with all the facilities to shape their career in such a way, that they should be part of a good and healthy society with progressive attitude towards divinity. The main part of the corporate world is teamwork and with the starting of this newsletter students will together and learn to work hard with a team. I wish them all the very best for their future.

# EDITORIAL BOARD



We heartily welcome you to the newly launched CSE department's first issue of the newsletter for the academic session July-December 2017.

- The objective of the news letter is to mainly focus on the
- ❖ *Achievements of the students and faculty members from the CSE department in curricular, co-curricular and extracurricular activities.*
  - ❖ *The recent trends in area of computer science and engineering and related areas.*

I congratulate my team members for their constant efforts in launching the newsletter. We are very grateful to our management for their support and encouragement.

**Ms. Charu Kavadia**

Assistant Professor  
Department Computer Science and Engineering

**Student Editors:**

Rhythm Bhiwani  
Zenab Wagla Wala  
Chinmay Jain  
Gauri Shrimali  
(1<sup>st</sup> Year CSE)

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# FACULTY ACHIEVEMENTS



**DR. MAYANK PATEL**

COMPELETED HIS PHD ON 3.11.2017.

TOPIC OF THESIS WAS  
**VIDEO QUALITY ENHANCEMENT AND  
EVALUATION OVER WLAN**

*Abstract:*

In his thesis, he proposed an **Adroit Buffer Augmentation for Reliable Video Transmission (ABARVT)** methodology and **Time Restraint Tractable Aggregation Scheme (TRTAS)** methodology that enhances the working of standard EDCA protocol and frame aggregation process respectively.

The proposed ABARVT methodology dynamically adjusts the video queue length (AC [VI]) at MAC layer. The dynamic adjustment of video queue length AC [VI] is done by the measuring the traffic congestion. Adjustment of video queue saves the video frames from being fall back from AC [VI] during the traffic congestions. In high traffic congestion, cross-layer mapping is employed as an extra precautionary method to reduce the congestion at video queue. During the cross-layer mapping, the important video frames are passed through video queue and less important video frames are passed through lower priority queues.

# STUDENT'S ACHIEVEMENTS

## VIII SEM Toppers

Roll No: 13EGICS046

Name: JASJOT KAUR ARORA

Total: 873

Percentage: 87.3%



Roll No: 13EGICS114

Name: TOFIQ QUADRI

Total: 834

Percentage: 83.4%



Roll No: 13EGICS102

Name: SHREYA AGRAWAL

Total: 833

Percentage: 83.3%



# STUDENT'S ACHIEVEMENTS

## VI SEM Toppers

Roll No: 14EGICS037

Name: Jaya Mehta

Total: 782

Percentage: 78.2%



Roll No: 14EGICS051

Name: Neha Paliwal

Total: 780

Percentage: 78%



Roll No: 14EGICS047

Name: Megha Jain

Total: 776

Percentage: 77.6%





# STUDENT'S ACHIEVEMENTS

## IV SEM Toppers



Roll No: 15EGICS032

Name: HABIBA KURABAR WALA

Total: 797

Percentage: 79.7%

Roll No: 15EGICS045

Name: MINAL SHARMA

Total: 790

Percentage: 79%



Roll No: 15EGICS013

Name: AVIRAL CHAUHAN

Total: 780

Percentage: 78%

# WORKSHOP

*Beyond the Classroom*

## Impact of Online Testing Platforms in Career Development

Department of Computer Science has organized a one-day workshop on "**Impact of Online Testing Platforms in Career Development**" on 06.12.17.

**Dr. V. R. Raghuveer** (Dean R&D and HOD Computer Science and Engineering) addressed the students on the importance of testing platforms in identifying the level of students at the national level. Also, he highlighted how these platforms expose the students of rural engineering colleges to the global corporate clients and provide them the opportunity to get noticed for their efforts.



The session was handled by **Mr. Shwetank Sethi** of **Aspiring Minds**. He discussed about the various testing platforms available in the market and how industries use the student scores from these platforms to pick the suitable candidates for their organization. The role of intelligent platforms in identifying the level of the students and adapt the tests in such a way it enhances the students' performance was focused upon. The way the visualization of test results helps the students to exactly pin point their weak areas was also highlighted. The session was followed by a QA session where the speaker clarified the students doubts.

Eighty students of CSE have participated in the workshop have obtained the clarity on the how these online testing platforms play a vital role in career development.



# WORKSHOP

*Beyond the Classroom*



## Automation Through Scripting

Department of Computer Science has organized a 60-hour course on "**Automation Through Scripting**" in the odd semester 2017-18 between 22.07.17 and 11.10.17. The Course was designed and developed by Geetanjali Innovation Lab (**GIL**).



**Dr. V. R. Raghuveer** (Dean R&D and HOD Computer Science and Engineering) addressed the students on the massive paradigm shift in the IT industry due to Automation and IoT. He highlighted the need for learning the scripting languages and Artificial Intelligence approaches for effectively handling the data generated by future IoT environment.



The Hands-on session was handled by **Mr. Ajay Prajapat**, TRA, GIL. He delivered the sessions on basics to scripting, automating basic system level tasks, handling basic tasks in LAN through scripting and introduced scripts that can generate new code. The students were evaluated on continuous basis in each session and the qualified ones were considered as interns in GIL.

Around fifty-three students of CSE have participated in the workshop and obtained fruitful knowledge that can enhance their technical skills.

# CREATING BASIC WEBSITE FOR FREE WITHOUT CODING

ARTICLE

ANKIT JAGAN  
3<sup>rd</sup> Year CSE (Section A)

**Step 1:** If you want a Unique Name, register a Domain at Popular Websites like GoDaddy or BigRock, this needs spending of money.

**Step 2:** If you just want to get started or try your idea, its recommended that you use subdomain which you get when you sign up for free hosting. Various options are available, you can try InfinityFree.Net or FreeHostingDaddy.Site .

**Step 3:** Once you Sign Up for the Free Hosting on the above-mentioned sites or any other option available to you, check out for Cpanel (Control Panel). You may have received its credentials on email or got the link and credentials after successful sign up.

**Step 4:** After getting the Cpanel credentials, Log in to the Panel.

**Step 5:** In Panel, after logging in, you can explore various available options, but its highly recommended that you don't edit to delete something without knowing and understanding the difference it may bring. You can add your own custom domain in option named Addon Domains. You can initially try your idea at small level on subdomain and then if works fine add your custom domain.

**Step 6:** For Building the Website, you need to look for option named **Softaculous Apps Installer**. Click on it. On the destination page, look for option WordPress or Search for it. Click on it.

**Step 7:** After clicking on WordPress option, on destination page it asks to choose the domain on which you want to install WordPress, select the domain on which you want to make website. After choosing the domain, also feed basic details like admin panel username and password, your email on which you want the installation details to be delivered, etc. After this click on install.

**Step 8:** On successful installation, you will get the message that WordPress was successfully installed. Now, you can sign out of the Cpanel and all work now will be done in WordPress Dashboard/Admin Panel.





**Step 9:** Now Log in to WordPress Admin Panel. The admin panel on WordPress by default is the domain.ext/wp-admin. Here domain is the domain on which you installed, ext is the extension of domain like .com or in or whatever. In short domain, ext is the complete domain name. suppose ankit.freehostingdaddy.site and then write /wp-admin for admin panel. Here in the admin panel log in with the credentials you used during installation.

**Step 10:** After logging in Admin Panel, you will see menu in left side. In this menu look for appearance option and click it. On loading of page, click on **Add New** option, On the destination page various themes will appear, check and try the live preview of the one you are comfortable with and is of your niche. Install the one which best suits your purpose.

**Step 11:** After Installing the theme, for editing click on the option **Customize**. Now, its exploration. Try, edit and update various elements and check the same on website.

**Step 12:** You can add plugins in the Plugins options, Add New, for social share, drag and drop page builder, building forms, etc.

**Step 13:** After you are done with building the basic website, its recommended that you take backup of the website. Log in to Cpanel and in Softaculous Apps Installer option, look for Installed option, click on it. Now, you can see that there are certain options available in the right side along with the name of websites on which WordPress is installed in left side. Take the cursor along the options in right side and see what is written, look for backup option and click on it. This will create a backup of website and can be reinstalled when there occurs any issue. On installation the website will come back to the stage on which it was when backup was taken.

**Step 14:** You can learn more on various online platforms. This is a basic article and will help you get started.

For any query's reach at:  
[ankit@lafangaa.com](mailto:ankit@lafangaa.com)  
[lafangaa.com/ankit](http://lafangaa.com/ankit)



# INTERNET OF THINGS

ARTICLE

RUSHIL AGARWAL

1<sup>st</sup> year CSE (Section B)

The Internet of Things (IoT) is a physical network of physical devices like appliances, vehicles, and other devices embedded with electronics, softwares, sensors, actuators and connectivity which enables these things to communicate with each other and network using wireless technology.

It creates more opportunities for more direct integration of physical world into computer-based systems, resulting in efficiency improvements economic benefits, and reduced human exertions. The total number of IoT devices increased 31% year-over-year to 8.4 billion in 2017 and it is estimated that there will be 30 billion devices by 2020.

The global market for IoT is projected to reach \$7.1 trillion by 2020.

The concept of a network of smart devices was discussed as early as 1982, with a modified Coke machine at Carnegie Mellon University becoming the first Internet-connected appliance, able to report its inventory and whether newly loaded drinks were cold. Mark Weiser's 1991 paper on ubiquitous computing, "The Computer of the 21st Century", as well as academic venues such as UbiComp and PerCom produced the contemporary vision of IoT.

Between 1993 and 1996, several companies proposed solutions like Microsoft's at Work or Novell's NEST. The field gained momentum when Bill Joy Envisioned Device to Device (D2D) communication as part of his "Six Webs" framework, presented at the World Economic Forum at Davos in 1999.

The term "Internet of things" was likely coined by Kevin Ashton of Procter & Gamble, later MIT's Auto-ID Centre, in 1999, though he prefers the phrase "Internet for things". At that point, he viewed Radio-frequency identification (RFID) as essential to the Internet of things, which would allow computers to manage all individual things.

## APPLICATIONS

- *Consumer applications*
- *Smart home*
- *infrastructure application*
- *manufacturing*
- *digital controlled systems*
- *agriculture*
- *energy management*
- *environmental monitoring*
- *Medical and healthcare...*

And the list goes on.





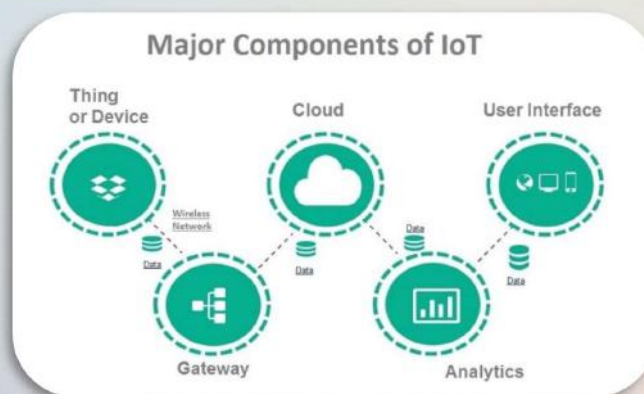
One of the key drivers of the IoT is data. The success of the idea of connecting devices to make them more efficient is dependent upon access to and storage & processing of data. For this purpose, companies working on IoT collect data from multiple sources and store it in their cloud network for further processing. This leaves the door wide open for privacy and security dangers and single point vulnerability of multiple systems. A report published by the Federal Trade Commission (FTC) in January 2015 made the following three recommendations.

**Data security** - At the time of designing IoT companies should ensure that data collection, storage and processing would be secure always. Companies should adopt a "defence in depth" approach and encrypt data at each stage.

**Data consent** - users should have a choice as to what data they share with IoT companies and the users must be informed if their data gets exposed.

**Data minimization** - IoT companies should collect only the data they need and retain the collected information only for a limited time.

A recent report from the World Bank examines the challenges and opportunities in government adoption of IoT. These include -



Still early days for IoT in government

Underdeveloped policy and regulatory frameworks

Unclear business models, despite strong value proposition

Clear institutional and capacity gap in government AND the private sector

Inconsistent data valuation and management

Infrastructure a major barrier

Government as an enabler

Most successful pilots share common characteristics (public-private partnership, local, leadership)

# SEMINARS

## *Exchanging Ideas.....*

- ✚ In our department we don't believe in sharing knowledge in just a close classroom. Rather we intend to provide our students all the extra and practical knowledge required to survive in this competitive world, and for this we have regular seminars held in our college premises and outside also.

### ▪ ***Automation and Applications of IoT in Manufacturing: Challenges and Opportunities***

#### **About Seminar:**

- The seminar brought together the experts from industry and academia to share their ideas and experiences of technological transformation in production processes, product design and manufacturing due to technological advancements in industrial automation and application of IoT in the industries worldwide. The seminar comprised of two technical sessions followed by a concluding session

#### **Date of Seminar:**

- 26 Oct 2017

#### **Organized by:**

- Sir Padampat Singhania University

#### **Students who attended the Seminar:**

- Deependra Gadwal
- Mukul Tater
- Nirmal Suthar
- Arpit Kumawat



### ▪ ***National Information Security Summit 2017***

- National Information Security Summit (NISS) is the premier International Information Security Awareness, Cyber Forensics, Malware Analysis, Cyber Cop, Cyber Law & Ethical Hacking Summit with skilled & proficient Speakers from government & private sector. Each brings unique insights from their expertise in the disciplines of ethical hacking, cyber forensics, cyber-crime, web application, networking, IoT & IT related laws.

#### **Date of Seminar:**

- 24-25 Nov 2017

#### **Organized by:**

- AMITY UNIVERSITY LUCKNOW CAMPUS

#### **Students who attended the Seminar:**

- Mayank Sharma
- Ayushi Bairagi
- Arpit Kumawat
- Deependra Gadwal
- Saurabh Shukla



# SEMINARS

*Exchanging Ideas.....*

## ▪ **V-Guard Big Idea Contest**

### **About:**

- *BIG IDEA contest is an annual B-Plan contest organized by V-Guard Industries Limited that aims to bring the corporate expertise & academic intelligence to a common arena, wherein the proposed strategy for V-Guard are discussed, studied, brainstormed and awarded. It also creates opportunities for interaction with top leaders of V-Guard, wherein the young minds can discuss and understand the business challenges to fine tune their thought process and cultivate a thought leadership among them.*

### **Date of Seminar:**

- 3-4 Nov 2017

### **Organized by:**

- V-GUARD INDUSTRIES LTD.

### **Students who attended the Seminar:**

- Saurabh Shukla
- Deependra Gadwal
- Mukul Tater



## ▪ **Meshmerize**

### **About:**

- *The competition provides the participants with engineering design challenges, including components of mechanical, computer, control software, and system integration. Participants work together to design and build a robotic vehicle that can navigate on an obstacle-filled course without any human guidance or control.*

### **Date of Seminar:**

- 29-31 Dec 2017

### **Organized by:**

- Techfest 2k17, IIT Mumbai

### **Students who attended the Seminar:**

- Saurabh Shukla
- Abriti Nanda
- Isha Mathur
- Archana Jhawar

# SPORTS

## Hitting the Home Runs

S.NO.	NAME OF THE STUDENT	TOURNAMENT	YEAR	ORGANISED At	RESULT
1	Divyansh Paliwal	Volley Ball	22-24 Oct-2017	All India Sports Meet Sir Padampat Singhnia	Winner
2	Anshuman Chouhan				
3	Abhimanyu Singh	Cricket			
4	Dheerendra Solanki				
5	Abhimanyu Singh	Cricket	14-16 OCT-2017	Inter College RTU Tournament S. Bhawani Institute Jaipur	Participate
6	Dheerendra Solanki				
7	Shailesh Prajapat				



# EXTRA CURRICULAR

CSE students are not only good at academics but they also shine in extra curricular activities.

**Mr. and Miss. Fresher** title were snatched by two of our very talented CSE students *Divyansh Paliwal* and *Gauri Shrimali*



*Until Next Time.....*

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