

# NEWS LETTER

Volume 4

Issue 4



**VIMAL JYOTHI**  
ENGINEERING COLLEGE

Department of  
**Computer science  
and Engineering**

Bi-monthly News Letter  
August , 2016

## VISION

To contribute to the society through excellence in scientific and knowledge-based education utilizing the potential of computer science and engineering with a deep passion for wisdom, culture and values.

## MISSION

To promote all-round growth of an individual by creating futuristic environment that fosters critical thinking, dynamism and innovation to transform them into globally competitive professionals.

To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry.

To develop human potential to its fullest extent so that intellectually capable and optimistic leaders can emerge in a range of professions.



**MEMORIES WITH FIRE...**

**THANK YOU FOR INSPIRING  
GENERATIONS TO COME**

## They Made us Proud ....



Four of our Staff members Ms Divya B ,Ms Neena VV, Mr Sunder V and Mr Jilson P Jose received a partner faculty award in relating to their excellence in Infosys Campus Connect program. The function was held 30th of June 2016 at Mangalore campus of Infosys . Department of CSE Congratulates the staff members for auspicious achievement.

**Infosys** | Campus Connect

## One more Professor to the Dept. of CSE

With full respect, on behalf of the entire CSE department, We welcome Dr. V. Chandrasekhar ,New Professor to our Department . He is graduate from REC Trichy (Currently NIT Trichy) in Computer science and Engineering . His Post Graduation was from Sastra university . He Completed his Doctoral Research from Anna University. He Got 17 + years of Teaching Experience in Engineering Colleges .His Publication credit Includes 7 journal papers, 16 conference papers and 13 workshops . His main area of interest mobile Ad-hoc Network . The Student and staff community of CSE wishes him a all the success for the life in Vimal Jyothi.



Dr . Chandrashekhar

# Jyothirgamaya 2016

VJEC is blessed with another group of young and talented students. BTECH students of this year has been welcomed to our campus by Jyothirgamaya 2017. Students came with their parents with great enthusiasm and excitement. The student volunteers arranged the venue very beautifully that caught everyone's attraction. The management and most importantly our Principal addressed the public welcoming them and also introducing the importance and beauty of the technological world. The students also had the chance to play a part in oath taking ceremony. The students were provided with candles. When it got lighted the entire atmosphere of the hall changed. The program continued till the noon. The parents and students were introduced to college campus as well as the rules and regulations the students must follow here. The management assured the students will be nurtured and trained to become an asset for the parents.

With the goal of motivating students both freshers and others towards studies, toppers of each class were awarded for their excellence. The students were indeed excited to receive awards in front of their parents. With this the program ended.



## LET THE GAME BEGIN...

The students of S7-CSE had a hands on workshop on "GAME DEVELOPMENT" on 5<sup>TH</sup> and 6<sup>TH</sup> of August. It was really interesting and surprising. Interesting because this generation is behind all kind of games, all were eager and excited to learn how to make a game and surprising because through this workshop we could know marvelous and unknown facts behind the building of a game. The session was handled by 2 eminent personalities Mr.Basil and Mr.Rejoy V M. They made us aware that playing games and having its fun part is not just important, but knowing about its internal technologies and art is also essential. Our HOD Mr. Manoj V. Thomas welcomed the gathering, and also gave an introduction to the topic. They also spoke about its relevance and scope in the

coming future. Game development can be a leisure activity and once we understand its base we could easily make one.



## ANDROID APP DEVELOPEMENT

The students of S5-CSE had a workshop on "android app development" on 15<sup>th</sup> and 16<sup>th</sup> of July. The session was handled by Mr.Sobin from Baabtra system Technologies. In this workshop we learned how to build an android app. In the present generation people depend on mobile applications for most of the purposes. Some of the popular apps are messaging apps like Whatsapp,

commercial apps like Flipkart etc. In this workshop we learned to make an app for coffee shop. It was a great experience for us to learn to build an android app. Android software development is the process by which new applications are created for the android operating system. Applications are usually developed in Java programming language. The session was very interactive.



# Science Behind Pokémon GO

Pokémon GO is a free-to-play (free roaming) location based game, which is now being a new hit in the mobile gaming all over the world. It's actually an AR (Augmented Reality) based game developed by Niantic for iOS and Android platforms. It was released initially in selected countries in July- 6- 2016. The game allows you to locate, capture, battle, and train virtual creatures called Pokémon, who appears in the screen of your mobile as if they were in the same real-world locations as the player. For this the game uses mobile GPS capabilities to locate Pokémon's and camera for AR. It involves physical activities, for finding a Pokémon in the real world you should travel to different locations and explore the game. By this game we can be more active in the real world; all of these facts lead this game to big hit and quickly become a global phenomenon and was one of the most used mobile apps, reportedly having been downloaded by more than 100 million people worldwide. It has also attracted controversy for contributing accidents and becoming a public nuisance at some locations.

## Game play

Players must physically travel to explore the game's map and visit pokéStops (The small circular purple one in the image) or cube (blue icon), depending on proximity and gyms (largest tower shown in the image). By throwing Pokémon balls we can catch the Pokémon's.

When we talk about the big hit there is a key point, that made the game most popular, yes it's AR and it's just like Virtual Reality (VR). Augmented Reality differs from its better-known cousin virtual reality, which is exemplified by Facebook's Oculus, Google Cardboard and similar efforts. Broadly defined, virtual reality (VR) encompasses a set of technologies that places the user in a computer-generated, three-dimensional environment. Augmented reality mixes the phys-

ical with the virtual, superimposing a computer-generated image onto the view of the real world as seen through a headset or mobile device. Microsoft's HoloLens technology takes augmented reality and uses it for everything from gaming to collaborating on documents and analytics. HoloLens is currently a developer project and not generally available. While HoloLens is interesting, "Pokémon Go" is the game that is popularizing augmented reality, "Pokémon Go is simple but remarkable it's the first mainstream case of augmented reality applied to the masses."

AKHIL.T ,S3 CSE

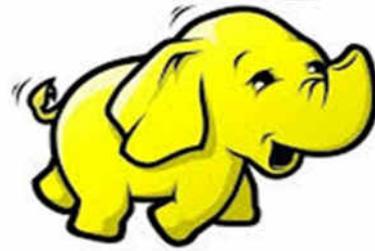


## PEOs of Department

- I. Graduates will achieve broad and in-depth knowledge of Computer Science and Engineering relating to industrial practices and research to analyze the practical problems and think creatively to generate innovative solutions using appropriate technologies.
- II. Graduates will make valid judgment, synthesize information from a range of sources and communicate them in sound ways appropriate to their discipline.
- III. Graduates will sustain intellectual curiosity and pursue lifelong learning not only in areas that are relevant to Computer Science, but also that are important to society.
- IV. Graduates will adapt to different roles and demonstrate leaderships in global working environment by respecting diversity, professionalism and ethical practices.



# hadoop



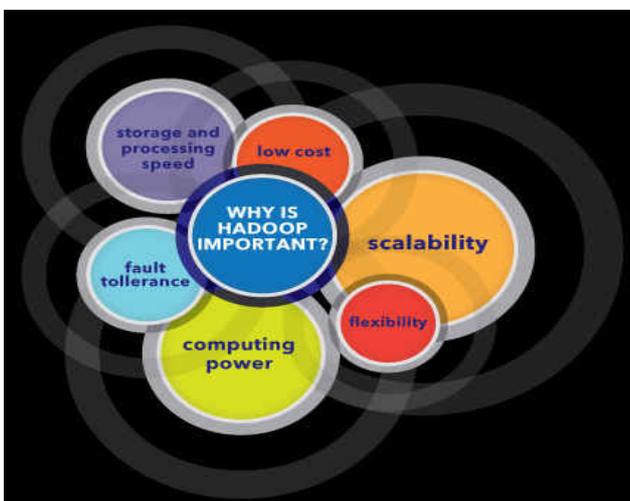
## Hadoop

Due to the advent of new technologies, devices, and communication means like social networking sites, the amount of data produced by mankind is growing rapidly every year. The amount of data produced by us from the beginning of time till 2003 was 5 billion gigabytes. If you pile up the data in the form of disks it may fill an entire football field. The same amount was created in every two days in 2011, and in every ten minutes in 2013. This rate is still growing enormously. Though all this information produced is meaningful and can be useful when processed, it is being neglected.

### What is Hadoop?

**Hadoop** is an open-source framework that allows to store and process big data in a distributed environment across clusters of computers using simple programming models. It is designed to scale up from single servers to thousands of machines, each offering local computation and storage.

**Hadoop** makes it possible to run applications on systems with thousands of nodes involving thousands of terabytes. Its distributed file system facilitates rapid data transfer rates among nodes and allows the system to continue operating uninterrupted in case of a node failure. This approach lowers the risk of catastrophic system failure, even if a significant number of nodes become inoperative.



Hadoop was inspired by Google's MapReduce, a software framework in which an application is broken down into numerous small parts. Any of these parts (also called fragments or blocks) can be run on any **node** in the **cluster**. Doug Cutting, Hadoop's creator, named the framework after his child's stuffed toy elephant. The current Apache Hadoop ecosystem consists of the Hadoop kernel, MapReduce, the Hadoop distributed file system (HDFS) and a number of related projects such as Apache Hive, HBase and Zookeeper. The Hadoop framework is used by major players including Google, Yahoo and IBM, largely for applications involving search engines and advertising. The preferred operating systems are Windows and Linux but Hadoop can also work with BSD and OS X

### Why is Hadoop important?

**Ability to store and process huge amounts of any kind of data, quickly :**

With data volumes and varieties constantly increasing, especially from social media and the Internet of Things (IoT), that's a key consideration.

**Computing power :**

Hadoop's distributed computing model processes big data fast. The more computing nodes you use the more processing power you have.

**Fault tolerance :**

Data and application processing are protected against Hardware failure. If a node goes down, jobs are automatically redirected to other nodes to make sure the distributed computing does not fail. Multiple copies of all data are stored automatically.

**Flexibility :**

Unlike traditional relational databases, you don't have to preprocess data before storing it. You can store as much data as you want and de-



side how to use it later. That includes unstructured data like text, images and videos.

**Low cost :**

The open-source framework is free and uses commodity hardware to store large quantities of data.

**Scalability :** You can easily grow your system to handle more data simply by adding nodes. Little administration is required.

**Disadvantages of Hadoop?**

**MapReduce programming is not a good match for all problems:**

It's good for simple information requests and problems that can be divided into independent units, but it's not efficient for iterative and interactive analytic tasks. MapReduce is file-intensive. Because the nodes don't intercommunicate except through sorts and shuffles, iterative algorithms require multiple map-shuffle/sort-reduce phases to complete. This creates multiple files between MapReduce phases and is inefficient for advanced analytic computing.

**There's a widely acknowledged talent gap:**

It can be difficult to find entry-level programmers who have sufficient Java skills to be productive with MapReduce. That's one reason distribution providers are racing to put relational (SQL) technology on top of Hadoop. It is much easier to find programmers with SQL skills than MapReduce skills. And, Hadoop administration seems part art and part science, requiring low-level knowledge of operating systems, hardware and Hadoop kernel settings.

**Data security:**

Another challenge centers on the fragmented data security issues, though new tools and technologies are surfacing. The Kerberos authentication protocol is a great step toward making Hadoop environments secure.

**Full-fledged data management and governance:**

Hadoop does not have easy-to-use, full-feature tools for data management, data cleansing, governance and metadata. Especially lacking are

# OLO 3D :

## The First Ever Smartphone 3D Printer.

Olo will turn your smartphone into a 3D printer.

We all print our daily projects using a printer. Ever thought of printing a 3D picture? Here comes an invention to do so.

An ambitious project called the OLO 3D printer is aiming to do a highly portable 3D printer that uses the smartphone's screen to print 3D objects. You place your smartphone's inside the box, close the lid to block out light completely and then the smartphone displays the design in white light as the object is printed on top of a film. Olo apparently uses a new type of liquid resin called daylight resin which you need to

pour the box be-



tools for data quality and standard-ization.

Abhina and Keerthana ,s3

Vishnu Pradeep ,S3 CSE

## One day Industry interaction program on TCS Campus Commune

Department of CSE arranged an industry interaction program with TCS on 14th of July 2016 .Two representatives to interact with our students to talk on their Campus Commune Activities .All final and pre-final year students attended the session. The session gave an insight to the Campus Commune for the students and they .Students taken part in the Code Vita Competition held on 18th July .



**PTA Meeting :** General  
PTA MEETING OF S5  
CSE CONDUCTED  
27/07/2016

### **Workshop/FDP:**

Four of Our Staff members Ms. Vidhya SS, Ms. Ancy K Sunny, Ms. Neethu Geoge and Ms Asha Baby attended a workshop on FDP on Graph Algorithms and Computational Geometry from \*11th to 16th July

### **Training session on Outcome Based Accreditation and NBA Processes :**

Ms. Vidhya SS and Mr Anoop Jose has taken a sessions on Document preparation on Different NBA Criteria's on 2nd July 2016 . The workshop session was arranged by Mechanical Engineering Department.

### **Editorial Board**

#### **Student Support:**

Ms. Rizwana –S6 CSE  
Ms. Priyanka - S6 CSE  
Ms. Lakshmi—s6 CSE

#### **Staff Support:**

Mr. Midhun TP

## POs and PSOs of Department

### **Engineering Graduates will be able to:**

- Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering Fundamentals, and an engineering specialization to the solution of complex engineering problems.
- Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- Design/ Development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.-A4

### **PROGRAM SPECIFIC OUTCOMES (PSOs)**

- An ability to apply development principles to analyze and design complex software and systems containing hardware and software components of varying complexity.
- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the trade-offs involved in design choices.