



Controlling complexity is the essence of computer programming. ~Brian Kernighan

“ ENGINEERING IS THE ART OF DIRECTING THE GREAT SOURCES OF POWER IN NATURE FOR THE USE AND CONVENIENCE OF MAN ”

EDITORIAL DESK

Hello!!! We are happy to welcome you all aboard the fledgling 1st edition for the scintillating year 2015. 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 1st 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.

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.

PLACEMENT TRAINING & ACTIVITIES

Placements & Training unit plays a vital role in interacting with various industries, multi national companies to ensure students with technical exposure, industrial training enriching and enabling them to acquire employability opportunities, it invites professionals from industries and organizations of repute with an endeavor to assists and provide employment to students in the placement process by organizing Lectures, Workshops, Career counseling and training in Soft skills, Behavioral skills

FACULTY TECHNICAL ARTICLE BY

Title Name: Google File System by Dr. PENMETSAM VAMSI KRISHNA RAJA

STUDENT TECHNICAL ARTICLE BY

Title Name: Green Cloud by AVIRNENI PRATHIBHA

WORKSHOP ON

The Department Of CSE Organized A Three Day Workshop On " Cloud Computing " Around 70 Participated From Different Colleges -

GUEST LECTURES ON

The Department Of CSE Organized Guest Lectures On Latest Topics To Fill The Gaps -

- Recycling Of e-waste
• Shell Programming
• Redblack Trees
• Advanced Testing Tools

VICE CLUB ACTIVITIES

- Women's Day
• Teacher's Day
• Engineer's Day
• International Yoga Day

SEMINAR

The Department Of CSE Organized A Seminar on IBM BlueMix

INDUSTRIAL VISIT

THE DEPARTMENT OF CSE, ORGANIZED A ONE DAY INDUSTRIAL VISIT TO CCMB



## Faculty Technical Article : Title - **GOOGLE FILE SYSTEM**

Written by **Dr. PENMETSA VAMSI KRISHNA RAJA**

### INTRODUCTION

The great success of Google Inc. is attributed not only to its efficient search algorithm, but also to the underlying commodity hardware and, thus the file system. As the number of applications run by Google increased massively, Google's goal became to build a vast storage network out of inexpensive commodity hardware. Google created its own file system, named as Google File System.

### ASSUMPTIONS

In designing a file system for Google's needs, they have been guided by assumptions that offer both challenges and opportunities. The system is built from many inexpensive commodity components that often fail. It must constantly monitor itself and detect, tolerate, and recover promptly from component failures on a routine basis.

### GOOGLE FILE SYSTEM ARCHITECTURE

A GFS cluster consists of a single master and multiple chunkservers and is accessed by multiple clients. The basic analogy of GFS is master maintains the metadata; client contacts the master and retrieves the metadata about chunks that are stored in chunkservers; next time, client directly contacts the chunkservers. Figure 1 describes these steps more clearly. Each of these is typically a commodity Linux machine running a user-level server process. Files are divided into fixed-size chunks. Each chunk is identified by an immutable and globally unique 64 bit chunk handle assigned by the master at the time of chunk creation. Chunkservers store chunks on local disks as Linux files and read or write chunk data specified by a chunk handle and byte range. For reliability, each chunk is replicated on multiple chunkservers. By default, three replicas are stored, though users can designate different replication levels for different regions of the file namespace.

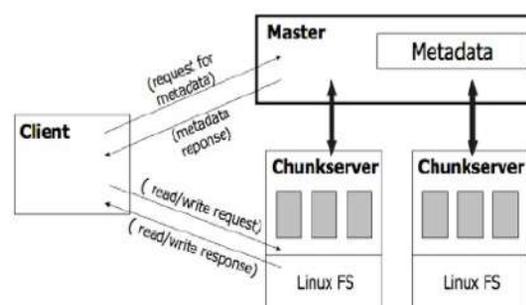


Figure 1

### CONCLUSION

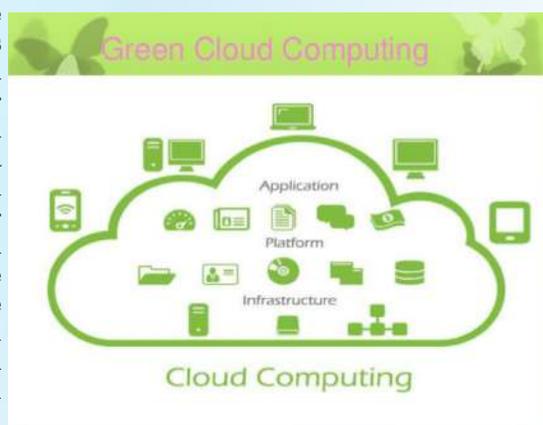
Data processing workloads on commodity hardware. While some design decisions are specific to the unique setting, many may apply to data processing tasks of a similar magnitude and cost consciousness. Google started work on GFS by reexamining traditional file system assumptions in light of current and anticipated application workloads and technological environment. We treat component failures as the norm rather than the exception, optimize for huge files that are mostly appended to (perhaps concurrently) and then read (usually sequentially), and both extend and relax the standard file system interface to improve the overall system.

## Student Technical Article : Title - **GREEN CLOUD** Written by **A.VIRNENI PRATHIBHA**

### INTRODUCTION

Green computing is defined 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." The goals of green computing are similar to green chemistry; reduce the use of hazardous materials, maximize energy efficiency during the product's lifetime, and promote the recyclability or biodegradability of defunct products and factory waste. Research continues into key areas such as making the use of computers as energy-efficient as possible, and designing algorithms and systems for efficiency-related computer technologies.

Modern data centers, operating under the Cloud computing model are hosting a variety of applications ranging from those that run for a few seconds (e.g. serving requests of web applications such as e-commerce and social networks portals with transient workloads) to those that run for longer periods of time (e.g. simulations or large data set processing) on shared hardware platforms. The need to manage multiple applications in a data center creates the challenge of on-demand resource provisioning and allocation in response to time-varying workloads. Normally, data center resources are statically allocated to applications, based on peak load characteristics, in order to maintain isolation and provide performance guarantees. Applying green technologies is highly essential for the sustainable development of cloud computing. Of the various green methodologies enquired, the DVFS technology is a highly hardware oriented approach and hence less flexible. The result of various VM migration simulations show that MM policy leads to the best energy savings: by 83%, 66% and 23% less energy consumption relatively to NPA, DVFS-



DVFS and ST policies respectively with thresholds 30-70% and ensuring percentage of SLA violations of 1.1%; and by 87%, 74% and 43% with thresholds 50-90% and 6.7% of SLA violations.

## INDUSTRIAL VISIT

Visited Company Name	Location	Date	Students Attended
CCMB	Uppal Road, Habsiguda, Hyderabad, Telangana	26/09/2015	70

WORKSHOPS & SEMINAR  
GUEST LECTURES

S. No	Gap	Action Taken	Date-Month-Year	Resource Person with designation	Students Attended
1	Utilization of E-Waste	A Guest Lecture on "Recycling of e-waste"	1/08/2015	Mr.K.Sathish, Gurunanak Institute of Technology	80
2	Linux Programming	A Guest Lecture on "Shell Programming"	3/08/2015	Mr.Sujith Majetty, Coign	85
3	Workshop	A Workshop on "Cloud Computing"	17/09/2015 to 19/09/2015	Mr.Sujith Majetty, Coign	85
4	Data Structures	A Guest Lecture on "RedBlack trees"	3/10/2015	Ms. Vanaja, CVR Engineering College	80
5	Software Testing Methodologies	A Guest Lecture on "Advanced Testing tools"	5/10/2015	Ms Sunitha Rekha, CVR Engineering College	85
6	Cloud Computing	A Seminar on IBM BlueMix	12/10/2015	Mrs. Shravani, TASK, ITE & C Dept, Govt. of Telangana	70

## ACADEMIC TOPPERS

SNO	ROLLNO	TOPPER	%AGE
<b>II-ICSE-A (2014-15)</b>			
1	13UP1A0537	1	81.3
2	13UP1A0532	2	80.7
<b>II-II CSE-B (2014-15)</b>			
3	13UP1A0558	1	78.9
4	13UP1A0553	2	74.5
<b>I CSE-A (2014-15)</b>			
6	13UP1A0503	1	74.3
7	13UP1A0508	2	65



## CAMPUS PLACEMENTS

The following students outshone the name of the department by getting placed in prestigious companies that visited campus of VMTW for recruitment of final year B.Tech Students.

S.No	Company	Date	package	No. of. Students Placed
1	APALYA TECHNOLOGIES	18th October, '15	1.8 LPA	3
2	NTT DATA	17th October, '15	12000/- (S) & 3 LPA	5
3	ZEN TECHNOLOGIES	13th October, '15	2 LPA	3
4	TEK SYSTEMS	05th October, 15	3.7 LPA	2
5	MAQ SOFTWARE	12th & 14th August, '15	2.4 LPA	3
6	Model N	05th August, '15	2.41 LPA	2
7	TECH MAHINDRA	21st June, '15	2.13 LPA	3

## BATHUKAMMA CELEBRATIONS

Bathukamma is a colorful floral festival of Telangana and is celebrated by VMTW womenfolk on 13 OCT with exotic flowers of the region. The festival has over the years become a symbol of Telangana culture and identity



## TEACHER'S DAY CELEBRATIONS

Students of CSE department celebrated teacher's day here on Wednesday. The Hod of CSE Department V. Indrani delivered a speech about Dr. Sarvepalli Radha- Krishnan, who was a great scholar and teacher. On 5<sup>th</sup> of September celebrated as Teachers 'Day all over the India every year. Spoke about the importance of Teachers and motivating the students. She said all the teaching and non-teaching staff should work together as a family.



## ENGINEER'S DAY CELEBRATION

Engineer's day on 15th September 2015 with active participation from students of all years of B.Tech. Engineering is not merely knowing and being knowledgeable; art of the organized forcing of technological change. To identify the great works done by our hardworking engineers each year 15th September is celebrated as Engineer's Day marking the birth anniversary of Sir Mokshagundam Visvesvarayya, recognizing his contributions in the field of hydro energy in India. There were four technical competitions: Poster Making, Project Presentation and Coding Decoding, computer Crossword organized by the English Faculty and CSE Department for the students of CSE. The winners were accolade by prizes given by, HOD of CSE Department.

## YOGA DAY

The yoga day was celebrated with great enthusiasm by the students - The proceedings began at 8:30 am with the lighting of the lamp by principal **Dr. P. Sudhakara Rao, HOD's, V Indrani, Dr. A.Narmada, T.Srinivasulu, L.Kiran Kumar**, The special -

The special faculty for yoga pointed out the importance of yoga in order to remain physically fit and mentally alert. Yoga deepens our breath, opens our vocal chords, increases the intake of oxygen by the blood, alkalizes our body and relaxes our mind

