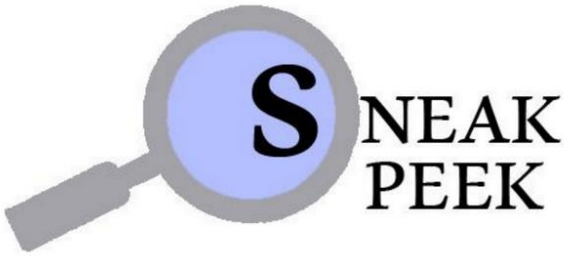
Volume: 3 Issue: 4

Smriti

Memory Archives

CSE Newsletter



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  - An Experience to Cherish
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Caterpillar has signed an MOU with our college!

H.O.D's DESK

As we enter into another exciting academic year, here comes our newsletter with activities and achievements of our department students and faculty. I am really pleased that after more than a year of technical interaction with Caterpillar Electronics, Caterpillar has signed an MoU with our college and also wants to engage with our department faculty in finding solutions to various industry-relevant problems. My heartfelt appreciations to Prasad and Suresh for their efforts in obtaining the GPU Education Centre status to our college from Nvidia.

Congratulations to Bhuvana who successfully defended her doctoral work.

Our department decided to go an extra mile in providing a few refresher sessions in algorithms and data structures, the knowledge of which plays a distinguishing role in bagging coveted dream placements. I highly appreciate Milton sir who readily agreed to deliver these series of lectures.

It is wonderful to see that lots of our current final year students have gained unique internship experiences at places like Universities in Canada, Microsoft Research India, Texas Instruments, TCS, Serendio, IITM and IITD&M. My compliments to Mukund Ram who has won a consolation prize in the innovation contest conducted by TI for his design of i-Watch. My hearty wishes to our final year students Chaaran and Ashwin Kumar, who have made our department proud by winning the second runner-up among 200 teams that participated in the Mobathon contest conducted by Daimler Financial services.

Three of our M.E students were given job offers at Caterpillar following the internship/project that they pursued with them. Among them, Indu Joseph has taken the offer. Congrats Indu! I also congratulate the recently graduated undergraduate student Suseendran, who has been given an offer at FlipKart after his successful internship there earlier. It is very encouraging to note that our UG alumnus Ashraya has been selected for direct Ph.D. at IISc, and she has taken it up over an M.S admit at an abroad university. Way to go, Ashraya!

I congratulate all the office-bearers of Association of Computer Science Engineers. The association has been inaugurated and is poised to launch lot of creative ideas for the annual symposium, Paradigm, and beyond that too.

Caterpillar signed an MOU with SSN College of Engineering!

FACULTY ACTIVITIES

Dr. J. Suresh

Dr. J. Suresh has been recognized as Supervisor to guide Anna University Ph.D/M.S Research scholars.

Dr. Shomona GJ

Dr. Shomona Gracia Jacob reviewed Research Articles for two Elsevier Journals:

(a) *" Applied Computing and Informatics".* The paper proposed a novel approach to Determine Software Security Level using Bayes Classifier via Static Code Metrics.

(b) *" Computers in Biology and Medicine".* The paper aimed at Prediction of Recombinant Protein Overexpression in Escherichia coli.

She has been given one year free subscription to access Scopus - Elsevier manuscripts.

FACULTY ACTIVITIES

Dr. D Venkata Vara Prasad

Dr. J. Suresh

Through the combined efforts of **Dr. D Venkata Vara Prasad**, Professor and **Dr. J. Suresh**, Associate professor of CSE Department, SSN College of Engineering has been selected by NVIDIA as a GPU Education Centre based on their demonstrated commitment to advancing the state of parallel education using GPU Computing and/or CUDA C/C++.

This status as a GPU Education Centre qualifies SSNCE for the following benefits:

- *GPU teaching kit consisting of (1) book, (1) K40 {active} and (2) Titan X GPUs as part of this award. Donated GPU models are commercially worth Rs 4 Lakhs.*
- *Participation in the Centres Reward Program to receive special pricing on Tesla equipment.*
- *Access to webinars for CUDA and GPU related programming from experts in various fields.*
- *Access to our technical team for support when needed.*
- *Access to 100 GPU programming labs available at nvidia.qwiklab.com for free, which can be divided amongst our students. As these labs are self-paced and hosted in the cloud, a student only needs a web-browser and internet access to participate. Available labs can be viewed here under Labs tab.*
- *NVIDIA-certified slides, hands-on lab exercises, and*

INTERNATIONAL JOURNALS AND CONFERENCES

1. **Kavitha S.** and **Thyagarajan K.K.**, *"Dual Channel Pulse Coupled Neural Network Algorithm for Fusion of Multimodality Brain Images with Quality Analysis"*, Applied Medical Informatics, Vol. 35(3), July 2014, pp. 31-39.

2. **Balasubramanian V.** and **Mala T.**, *"A Review of Various Data Security Issues in Cloud Computing Environment and its Solutions"*, ARPN Journal of Engineering and Applied Sciences, Vol. 10(2), February 2015, pp. 1-7, ISSN 1819-6608.

3. **Nethra K.** and **Bharathi B.**, *"Speaker Verification using Ant Colony Optimization"*, International Journal of Applied Engineering Research, Vol. 10(55), 2015, pp. 507-512 ISSN 0973-4562.

4. **Sumathi S.** and **Sarath Chandran K.R.**, *"An adaptive Reconfigurable System Framework with Efficient Dynamic Configuration Mapping"*, International Journal of Applied Engineering Research, Vol. 10(34), 2015, pp. 27189-27194, ISSN:0973-4562.

5. **Thiageshwaran, Vignesh S., Sakthivel Murugan S., Sarath Chandran K.R.** and **Angel Deborah S.**, *"An Integrated Augumented Reality System with Human Motion Tracking and Analysis"*, International Journal of Applied Engineering Research, Vol. 10(34), 2015, pp. 27195 – 27200. ISSN:0973-4562.

6. **Lakshmi Priya** and **Shomona Gracia Jacob**, *"Predicting Protein-Protein Interactions through Associative Classification Technique"*, International Journal of Computer Science, Vol. 3(5), May 2015, pp. 88-95. ISSN 2321-5992.

7. **Kalai Magal R.** and **Shomona Gracia Jacob**, *"Improved Random Forest Algorithm for Software Defect Prediction through Data Mining Techniques"*, International Journal of Computer Applications, Vol. 117(23), May 2015, pp. 18-22. ISSN 0975-8887.

8. **Kovarthini S.** and **Priyadharsini R.**, *"Example based Approach for Enhancement of Underwater Acoustic Image using Markov Random Field"*, International Conference of Advances in Applied Engineering and Technology, May 14-15, 2015, Syed Ammal Engineering College, Ramanathapuram.

9. **Gayathri Devi M.** and **Priyadharsini R.**, *" Underwater Acoustic Image Enhancement using Sparse Representation"*, International Conference of Advances in Applied Engineering and Technology, May 14-15, 2015, Syed Ammal Engineering College, Ramanathapuram.

REACHING THE FINISH LINE

I successfully defended my Ph.D oral examination on Monday, 20.07.2015 at 1:30 PM. The session started with the introduction of the two examiners, Dr. Kusum Deep IIT-Roorkee and Dr. C. Chandra Sekhar IIT Madras followed by the presentation of my research work done and questionnaire.

The title of my dissertation is, ***"Design of Memetic Algorithm with Automatic Termination Scheme and Preferential Local Search Using Adaptive Weights"***, under the guidance of Dr. C. Aravindan. I am happy that the session went well and overwhelmed by my friends' collective support, which I would like to cherish forever.

- J Bhuvana
  AP/CSE

Faculty Internship Program at L&T

"Campus Springboard" is a Campus Connect initiative of L&T InfoTech to create a platform for college faculty & students to come together, learn and understand latest technologies & best practices used by IT professionals of L&T InfoTech in developing live projects for customers.

Totally 11 faculty members, from SSNCE(1), SVCE(1), RIT(1), REC(1), RMD(1), RMK(1), RMKCE(1), EEC(2), SIT(1) and SEC(1) were the attendees. Three Groups were formed Group I - SSNCE, REC, RMKCE, EEC, Group II - RIT, SVCE, SIT, RMD and Group III - RMD, EEC, SEC. Each group has to visit the different projects i.e, Development, Testing, Maintenance, and Maintenance& Support.

Group I was assigned Testing, Maintenance, Maintenance & Support kind projects and Group II & III with Development, Testing, Maintenance, Maintenance & Support.

Day 1 – Vipul Bhagat and Kavitha Raman from Campus Springboard from L&T Infotech, initiated the program on the first day of 13th July 2015. In the first day they gave an overview of L&T Infotech and about the program.

Day 2&3 - Maintenance & Support (Project Manager: Mr. Sriram)

Sriram explained his project (Insurance Domain) and assigned his team leader and members to explain what they are doing, how they are maintaining and supporting the project. Main observations are i) work assignment by the project manager (done every Tuesday), ii) meetings held - Weekly status meeting, Defect prevention meeting (held on every Thursday), client meetings (every day after 8.00pm). Apart from the regular projects, team members have to come up with innovative ideas and to be presented.

Day 4&5 - Testing (Project Manager: Ms. Krithika)

Krithika explained her project (Banking Domain) and about functional testing (what they are concentrating). Main observations in this project are, i) tools used for testing (Selenium, HP QTP & HP Quality Centre) and ii) Manual and Automation testing

Day 6&7 - Maintenance (Project Manager: Mr. Mayakrishnan Ramanathan)

Mayakrishnan explained his project (Insurance) and assigned his team members to explain what they are doing, how they are doing. Main observations in this project are, i)Huddle Meeting- kind of meeting conducted daily to discuss the issues among the team members and ii)tools such as SVN & Sharepoint.

Day 8 - Session on Quality Assurance and Audit by Ms. Nirmala, Quality Manager, L&T Infotech.

She explained the importance of QA and showed some of the templates (Contract Management Document, Project Management Document etc.) used in projects.

Day 9 &10 - Preparation by the participants (Group Wise) & Sharing of Knowledge among the Groups and Valedictory session.

J. Suresh

Associate Professor/CSE

Summary:

In short, it is a program where we got exposure on how projects are carried out in an IT Company. Overall, we observed what they (PM/TL/Programmers) are doing, their daily activities, tools they use - Splice-M (tool developed by L&T for Worksheet / Document Management), SVN & SharePoint for Version Control, HP Quality Centre, Selenium, HP Unified Function Testing (QTP). Most of the sessions were held in conference room and explained by the respective project manages, team leaders and members.

Did You Know?

CAPTCHA

is an acronym for *"**C**ompletely **A**utomated **P**ublic **T**uring test to tell **C**omputers and **H**umans **A**part"*

EYES
On The Road

EYES is a new system for smartphones and tablets –now in the prototype phase– which aims to make overtaking maneuvers on highways safer. EYES provides visual help to the driver when he overtakes and it is also useful in monitoring maneuvers for autonomous vehicles.

The system has been developed by researchers at the Group of Computer Networks of the Department of Computer Engineering (DISCA, in Spanish) of the UPV. “In scenes where overtaking entails a critical traffic maneuver such as: on two-way highways, low visibility lanes, or in situations with large vehicles, this is a safety system to help reduce the number of accidents. Since it provides real time information, it allows the driver to make the decision to start overtaking at the right time,” says Juan Carlos Cano, researcher at the Group of Computer Networks of the Department of Computer Engineering of the UPV.

EYES runs autonomously and with no driver intervention. When different validation tests are run in order to guarantee the direction of the vehicles, the application receives and shows in real time, on a tablet or smartphone, the video of the highway seen by one of the vehicles that precedes us. Thus, it provides the driver further information to decide the best moment to overtake in low visibility situations.

For image transmission, EYES uses a system based on Wi-Fi technology, which establishes point-to-point connections between several vehicles in way that is very clear for the user. Thus, it does not depend on the use of 4G cellular communications systems.

“EYES provides a better vision of the highway and every vehicle travelling in the opposite direction. And it is particularly useful when large vehicles block the frontal view of the driver, so it could reduce the risk of accidents. It is an innovative system that could be within anyone’s reach,” explains Juan Carlos Cano.

For more details refer: http://dblp.uni-trier.de/pers/hd/c/Cano:Juan=Carlos

Ms. S. Angel Deborah

AP/CSE

Workshop On Big Data Tools

Dr.V.S. Felix Enigo

Associate Professor-CSE

A workshop on "Big Data Tools" was conducted at the Madras Institute of Technology, Chrompet, Chennai. The objective of this workshop was to familiarize the participants with various software tools used in big data domain. Two resource persons from CDAC Mr. V. Solai Murugan and Mr. P. Vignesh Raja handled the three day sessions and hands-on. First day focused on introduction about Big Data, Hadoop Framework, HDFS, Map reduce programming and installation of pseudo-distributed mode in Hadoop 2.x. In the second day, overview of NoSQL DB and hands-on on Pig, Hive, Sqoop, Flume and Hbase was done. In the last day, hands-on on Hadoop 2.x in fully distributed mode, MongoDB was taught. A full-fledged hands-on was not done for "R" and Visualization tool Gephi, due to lack of time. Instead demonstration was given by them. It was a thoroughly interesting session and enabled the audience to gain good knowledge of the basic working of many big data tools.

DBT Sponsored Hands-on Workshop on Recent Research Trends in Computing Techniques for Bioinformatics

Dr. R. S.Milton, Professor, Department of Computer Science and Engineering, was invited to inaugurate the DBT Sponsored Hands-on Workshop on Recent Research Trends in Computing Techniques for Bioinformatics, held during July 24-25, 2015 at **Mepco Schlenk Engineering College, Sivakasi**. Dr. Milton also handled a session on Introduction to machine learning, Artificial Neural Networks, and SVM.

LaTeX Workshop

The workshop on **"LaTeX"** was organized by the Department of Computer Science and Engineering, in association with IEEE students chapter and ACM students chapter on 17th & 18th of July, 2015.

Coordinators: Dr. D. Venkata Vara Prasad, Dr. J. Suresh

Mr.V. Balasubramanian

No of Participants: 37 (M.E CSE and M.E S.E students)

Speakers: Dr.R.S.Milton, Dr.R.Kanchana, Dr.B.Bharathi,

Dr. S.Sheerazudhin, Mr.S.SenthilVelan, Ms.K.Vallidevi

During the first session of Day 1, Dr. S. Sheerazudhin, Associate Professor, covered topics like Introduction to LaTeX, Mathematics, Typesetting, and Macros. The next session was handled by Ms. K. Valli Devi, Assistant Professor. She covered Formatting Text, Verbatim and Images. The Next session was handled by Mr. S. SenthilVelan, Associate Professor. He delivered a talk on Tables, Equations, Graphics, Packages and coding.

Day 2 was kick-started by Dr. R. Kanchana, Associate Professor. She gave a talk on Bibliographies. In the next session, Dr. B. Bharathi, Associate Professor, SSN CSE, delivered a talk on Graphs and Graphic Packages. The last session was handled by Dr. R.S. Milton. He gave a talk on Presentations: Beamer package and LaTeXiT. Hands on training was given in all the sessions.

LaTeX WorkShop

EDUCATION - WHERE LEARNING NEVER STOPS!

Sacrifices form a part of Life,
At the throat of happiness we lay the knife,
What is this ... a daunting question? Does it really matter...?
I wonder if anyone knows the answer....finding it does get harder!!!

Infancy, Childhood, Adolescence and late teens,
Witness joy and happiness, achievements and pleasure,
Late tees and middle-age...come family pressures and worries,
What have we gained all this while...we begin to measure!

The same experiences were shared by my comrades and me...
Academics, Sports then Career and Family...
Was this not work enough that we chose to study higher... Oh My!
On God we placed our trust and just aimed high!

Sleepless nights and long working hours...
Seminars-Research-Journals-Presentations – all earthly powers
Fee payment...Progress reports and publications...is that all?
No..No.. No...you have to prove your worth...your stuff...in that Viva hall...

But now, it's done...God brought us through it all...
All that matters is whether you rise..no matter how many times you fall??
Suddenly we stop to think... No there can't be a pause...
Education..Research...Learning can never be complete... Its the beginning of a noble cause!

Come on friends and students, let's do it together
Hand-in-hand-supporting each other
Let's never let go of professional ethics in our venture to achieve
We can have it all – if only we believe!

We will do it because we can, it is not impossible!
One has to suffer pain to realize the worth of what we gain
But when it is done, we make our family, our teachers and our Nation proud
Our flag holds high, no matter how large the crowd!

-Dr.Shomona GJ
Associate Professor/CSE

Faculty Development Training Program on Foundation Skills in Integrated Product Development (FSIPD) Train the Trainer Program

The FDP was launched by the Hon'ble Minister for Higher Education Mr. P.Palaniappan. Dr. D. Mohan, Director CFD, Anna University, delivered the welcome address. The Introduction about SSC NASSCOM was delivered by Dr. Sandhya Chintala, Vice President NASSCOM & Executive Director – SSC NASSCOM. Special address was by Mr. Samir Yajnik, President Sales & COO Asia Pacific, Tata Technologies Ltd. The Key note address was delivered by Mr. B.V.R. Mohan Reddy, Chairman NASSCOM, Founder and Executive Chairman of Cyient. Dr. M. Rajaram, Vice Chancellor of Anna University delivered the presidential address. Inaugural Address was delivered by Mr. P.Palaniappan, Hon'ble Minister for Higher Education, Government of Tamilnadu.

The training programme included topics on Current Industry Trends New Product Development (NPD) Process, Requirement Types, Development Requirement Engineering & Principles, Requirement Management, Traceability, System Design, SRS, SDS, Sys. Modeling and Zackmans Framework. Moreover topics like Industrial Design, Usability Engg, Conceptualization (Mech, H/W, S/W, Co-design), Detailed Design, Verification, Validation, Six Thinking Hats, System integration, Integration challenges, application to Toll Plaza Case Study, Product documentation, prototyping were very interesting and gave an in-depth view of the problems directly faced by the industry in the form of real-time examples and the ways in which it was solved. The goal of this entire programme was to make the student resource industry ready.

The programme concluded with a Project Presentation, followed by a visit to AU-FRG CAD-CAM Lab and 3D printing Machines which included a live demo. Dr. T.V. Gopal delivered the Vote of Thanks.

Dr.G.Raghuraman.

Associate Professor/CSE

FDP ON INDUSTRY READY PROGRAMMING SKILLS

A one-day faculty development program on "*Industry ready programming skills"* was organized by *Cognizant Technology Solutions* on 25th July 2015 at CTS Academia Campus, Siruseri. The program was about the importance of right way of programming, techniques for higher order thinking and pedagogy for millennials. About seventy participants from different engineering colleges in Chennai participated in the workshop.

The day started off with an informal mini-quiz on identifying phrases that we use every day. Though it sounds simple, we were amazed at how something so simple was so difficult to reproduce quickly. With that note on simple things, Mr. Varadharajan, Capability Architect - Cognizant Academy at Cognizant Technology Solutions, the speaker for the day made us understand the importance of simple things when it comes to programming. *Coding correct* VS *Coding right* is something a developer should always have in mind. Optimizing the code plays an important role in utilizing the computing resources efficiently. He quoted tidbits from history, in one of which he said how a neglected "else" block happened to wreak havoc in the entire eastern coast of US with a power blackout for more than 10 days.

From the industry's perspective, he added that a developer should test his code for all test cases by looking for defects in the software requirements given by clients rather than sticking to it word for word. From the teacher's perspective, he suggested using a case study approach in assessment questions for incorporating fun in learning and grading student submissions based on code review, test coverage and performance. One such fun assessment question to share is

"The mysterious multiplying Jar" –On the sea there was 1 island and on the island there were 2 countries and each country has three mountains, each mountain has four walled kingdoms, each kingdom has five villages, each village has six houses, each house has seven rooms, each room has eight cupboards, and each cupboard has nine boxes, and each box has ten jars. Find how many jars were in the island?

In a nutshell, the program highlighted both on the teachers' and the students' perspective on acquiring a life-long skill called programming.

Ms. M. Saritha, AP

Ms. S. Lakshmi Priya, AP

UPA YOGA

True to the words of an English saying, **"Yoga is not a religion. It is a science, science of well-being, science of youthfulness, science of integrating body, mind and soul"**, yoga is the most superficial aspect of this profound science of unfolding the infinite potentials of the human mind and soul. So, as a part of celebrations for **International day of Yoga on 21st-June-2015**, Isha Foundation, Coimbatore has opened up the possibility of **UPA YOGA** to be offered to the world. Isha Foundation has been a leader in offering scientifically structured solutions for individuals to live as conscious, joyful and healthy human beings. Upa Yoga is a powerful tool for transformation in an easy-to-learn and practice format. It was organized to benefit the students and faculty members of the college.

Date:	**1st July, 2015**	**03.00 to 04.30 pm**
	4th July, 2015	**10.00 to 11.30 am**
Venue:	Seminar Hall, ECE Dept Ground floor	
Contents:	6 tools of Upa Yoga - Yoga for Health, Joy, Peace, Love, Success and Inner exploration	

The benefits of Yoga are the following.

- Enhances vitality, focus, memory and productivity
- Strengthens and stabilizes the spine
- Stabilizes the body, mind and emotions
- Can relieve back pain, stress, anxiety and tension
- Can relieve from chronic ailments and improves overall health
- Enhances teamwork and communication
- Imparts a lasting sense of joy, peace and fulfillment

In the first session on 1st July, 15 faculty members and 35 students participated. In the second session on 4th July, 6 students and 48 faculty members participated. Hence, there was an overwhelming response to this programme with a total 104 participants. Instructors from Isha Foundation, Coimbatore came on both the sessions.

Organized by
Dr. R. KANCHANA

Workshop on Yoga-Uyir Nokkam

Uyir Nokkam is a simple yet powerful yogic practice designed by Sadhguru of Isha Foundation, Coimbatore to make our body, mind, emotions, energies, and the five elements within us, function for our wellbeing.

The format of the program is 2 hours a day for 3 days. The program is conducted by trained teachers under the guidance of Sadhguru.

Benefits of this practice include:

- Improved physical health
- Stress free life
- Better relationships
- Effectiveness in handling situations
- Become naturally loving and joyful

The Uyir Nokkam programme has been organized as per the following schedule.

Date: 14th to 16th July 2015

Time: 06.00 am to 08.00 am

Venue: Seminar Hall, Dept of ECE, Ground floor

25 students of BE I year participated in this programme and felt touched. The participants gave their feedback as with only these 3 days of practice, they feel relaxed, fearless and more self-confident. They ensured that they would do the practices learnt in this programme (called Yoga Padha) everyday as a group in the evening.

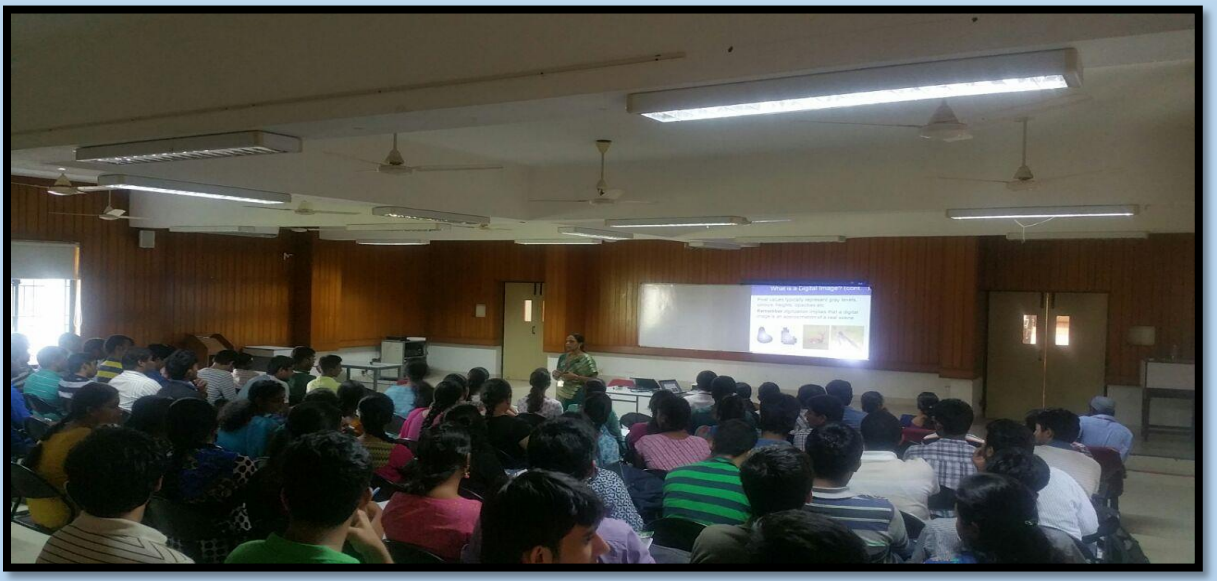
-Dr. R. Kanchana

Introduction to Image Processing

It all started at the CSE DEPT SEMINAR HALL with an introductory session on image processing techniques. The guest lecture took place in two sessions.
In the first session, the resource person, Dr. T. T. MIRNALINEE explained the audience what exactly a digital image is. She carried the lecture on by explaining the various image processing techniques. These include histogram equalization, image de-noising, image segmentation etc.

The target audience were third year CSE students. She kept the session interactive by shooting questions which made the concepts more clear and understandable! The first session ended with an explanation of what an image feature is and how feature extraction is done.

In the second session, Ms. P.Mirunalini gave the audience an introduction on OpenCV, an image processing tool. Starting with the data types in OpenCV, the concepts were explained to the participants with sample codes on how an image is clipped and features are extracted from an input image. Though there are many image processing tools in the market, the question arises on why OpenCV is of immense importance. I am sure that, at the end of the session, each and every participant had an answer to this question.



Art Corner

*A **wise** old owl sat on an oak; The more he saw the less he spoke; The less he spoke the more he heard*

-Ranjini Ramesh
CSE - B
3rd Year

Sketch of Harold Whittles, a boy hearing for the first time in his life.

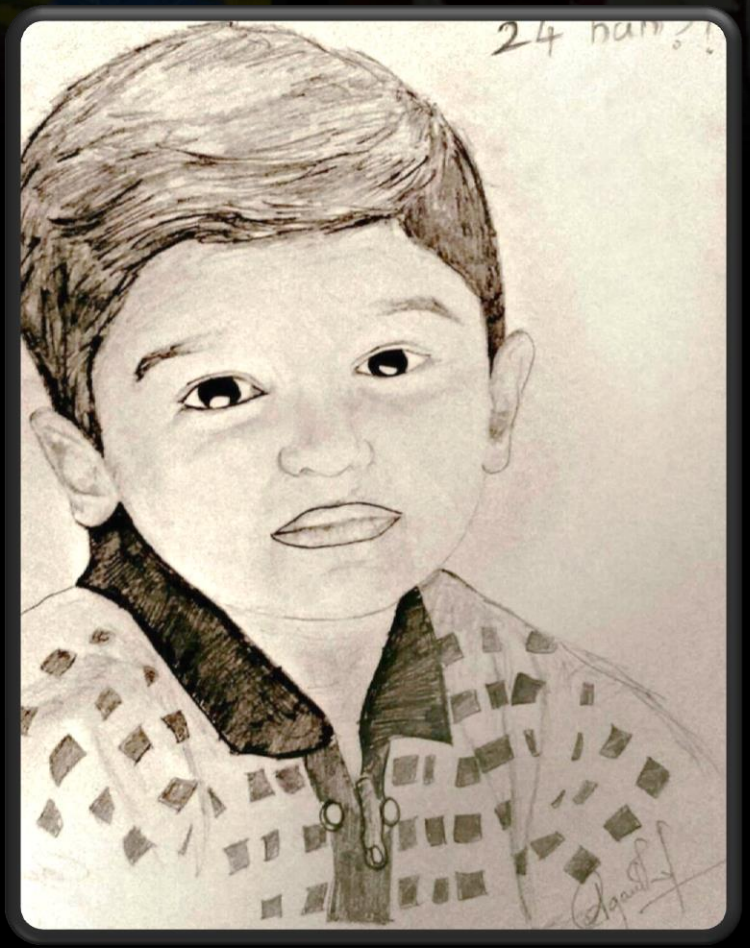
-M.R.Sudha
CSE - B
3rd Year

Embroidery Art

-Thiviya Kalyani

CSE - B

3rd Year



Children see magic because they look for it.

-Gowtham

CSE - A

2nd Year

ACE INAUGURAL

Association of Computer Engineers (ACE) was inaugurated on 28th July 2015 to kick-start their activities for the coming academic year 2015-2016. The flagship event of ACE, 'Paradigm' is the students' symposium of the CSE department which will be taking place on 1st September, 2015.

The inauguration began with a prayer song and ceremonial lighting of the lamp. The Chief Guest, Mr. Vaidyanathan, who is the founder and CEO of Classle, unveiled the official logo of Paradigm 2k15. Following this, the official website of Paradigm 2k15 designed by M.Arvind, 4th year, was launched. The 3D Virtual Website, which is designed based on a medieval theme, is a visual treat. After the website, the official Android and Windows apps for Paradigm 2k15 were launched by Mr. Vaidyanathan and Dr. Chitra Babu respectively.

The Chief Guest Mr. Vaidyanathan then addressed the gathering with an insightful speech about building one's ability as well as one's reputation. This was followed by a brief speech by the HOD, Dr. Chitra Babu, who spoke about the importance of passion in learning.

Following this, the promotional video for Paradigm 2k15 was showcased, which, judging by the thunderous applause was the most awaited part of the morning. The ceremony then concluded with the national anthem, leaving students in eager anticipation of the actual event.

ACE OFFICE BEARERS

Devesh Rastogi
President

Siddhaarth S
Vice president

Shivani K
Secretary

Ashwin Kumar
Joint Secretary

Vishal Ramaswamy
Treasurer

Arvind M
Joint Treasurer

Ruban B
Event Co-ordinator

Bharath Kumar S
Event Co-ordinator

GOOGLE SPOTLIGHT STORIES

Google Spotlight stories aims to bring viewers a world of storytelling tailored for mobile devices. As the “immersive short” plays, one can move the phone screen around to see things from multiple angles and follow the characters of one's choice. This makes it interesting to watch it again, as one can see things from a different perspective each time.

Spotlight Stories transforms one’s phone into a mobile movie theater by using 3D and 2D animation, 360° spherical cinema-quality video sensor fusion techniques and full-sphere surround sound .Spotlight Stories uses the smartphone as a virtual viewfinder or a window , allowing the user to look wherever they like in a full 360-degree environment. This is different from Virtual Reality which has full field-of-view immersion, where the viewers actually experience being a part of that world.

Spotlight Story Development Kit (SDK) was showcased at the Google I/O developer conference 2015.The SDK would provide the content creators with the tools needed to tell immersive stories once it becomes available to the public.

- **Indu. M**
3rd Year CSE-A

student internships

1. Mukundram M (IV Year)

I won the consolation prize at Texas Instruments DIY Innovation Contest held at Texas Instruments, Bangalore, India. Several employees from Texas Instruments also took part. We were asked to use TI's MCUs to do our projects. My project was *'iWatch'* - a wall clock that controls ambient lighting based on the music being played. The prize was a Tiva C Series Launchpad from TI and a cash prize of Rs. 3000.

2. Naveen H and Sudharshan R (IV Year)

We have been doing an internship at Tata Consultancy Services, Sholinganallur for a period of two months starting from 20th May. We aare working at the Travel Transport and Hospitality Division (TTH) of TCS, with the Technology Excellence Group (TEG), which is mainly concerned with exploring the latest technologies and making proposals to clients about the use of the same. We are working on *Java web development*. Our main task is to use the *Play framework* along with the *Akka* library for distributed computing. Using these we are trying to develop an efficient shopping cart for an airline that would use this new pattern called CQRS (Command Query Responsibility Segregation) with Event Sourcing.

student internships

3. Akalya K N (III year) and Roshini M (III year)

We interned at Source HOV Pvt.Limited, Guindy during the month of May from 20th to 27th, where we got practical experience on "*OPTICAL CHARACTER RECOGNITION*"- process of extracting text from images. During this course of intern, we gained knowledge on different concepts of how to process different types of forms namely health forms (Smart approach), invoice forms (Form storm approach) and Tax forms (Turbo scan).This helped us gain experience in handling different types of software for processing the forms to extract text from it.

4. S Revathy (III year)

I did my internship at AIRPORTS AUTHORITY OF INDIA (AAI). I went in there for a week's training program. I learnt about *air traffic control* and *radar image processing*. AAI provides air traffic services such as Communication, Navigation and Surveillance. We went to Meenambakkam ATC office and Porur Radar Station. At Porur, we were shown in detail the computer that was recording all the surveillance done by the RADAR and graphics, maps and position of flights. ATCOs explained the software used and message coding. At Meenambakkam, we visited equipments section, transmitter and receiver section and we went up to the terrace where the antennas where placed. From there we could see the flights taking off and landing. We got to know about the Automatic Messaging and Switching system with the knowledge of the protocols and cables. It gave me a lot more exposure.

student internships

5. Siddarth G (IV Year)

I landed a lucky internship at Microsoft Research India (MSR), Bangalore during Summer 2015. The internship extended for 2 months during which I was delegated to work on a MOOC started by MSR called the *Massively Empowered Classroom* (MEC), which was also the reason why I got an internship into this wonderful place. My primary objective here was to build an analytics module for all the videos on the MEC website and finally integrate it with the live site as well. It was an amazing experience, given that the people around me were absolutely great.

6. Nivetha Thiru (IV Year)

This summer, I performed a *Data Mining and Machine Learning* Project for a trading company, Sri Kailash Controls, encompassing efforts to find patterns in their inventory database and come up with a machine learning model to predict inventory levels so as to cut down their costs and improve their working capital.

7. V Mageshwaran (IV Year)

Company: Zoho Corp

Area of Work: Anomaly Detection in Streaming Data (Analyzing the Pattern)

After applying for the internship program, there was a face to face interview round which I had got through. The difficulty level increases with every question and they concentrated mainly on *Java* and *OOPS*. The work environment was comfortable and they had very limited rules. They won't urge you to complete the task in time, but they expect the quality of the output to be extraordinary and because of this reason, I think it is one of the best companies to start your career with and set this company as a platform to expand your domain.

8. Devesh Rastogi (IV Year)

I was elated to get an opportunity to do my Summer Fellowship Programme at IIT Madras. The training programme spanned over two months, and I worked in the domain of Networking with NS3 and Wi-Fi Module. The title of my project was *Dynamic Channel Selection*, which is based on the following concept: Mobile devices connect to Wi-Fi access points. Various algorithms can be applied on the access point to maximize performance. Access points monitor each channel and whenever there is congestion, the access point automatically shifts to a new channel frequency.

student internships

9. Dhivya Ganesh (III Year)

I attended an internship at SAP Labs India Pvt. Ltd., Bengaluru for *Android App Development* From 01/06/2015 to 12/06/2015. I was assigned a mini project on developing an Android application for conducting mock GRE quiz. Following this, I was provided with another assignment to develop another Android application for diabetic patients.

10. Priyanka R (IV Year)

I did my summer internship at Center of Development for Advanced Computing, Bangalore. My project involved research on the *Rose compiler*, *OpenCL* and *Sage III reference*. Because my work was going to be integrated with the work of another intern, I also had to read how her code could identify parallel parts of a program and write a separate kernel. So my work involved building the statements necessary to set up the platform, device, buffers in the kernel before creating calls to execute it itself. It was also imperative to add these statements to the appropriate place of the abstract syntax tree created for the program by the ROSE Compiler. So, the final product of my project was a design to convert C to OpenCL code (parallel segments). It was a true learning experience and taught me how to research on topics which haven't been dealt with on a wide manner, before. I'd like to thank CDAC for providing me with this opportunity.

MOBATHON

Ashwin Kumar S and **Chaaran S** of IV CSE A section participated and won the **THIRD** place in the **'MOBATHON' (Mobile App Contest)** conducted jointly by the **Centre for University- Industry Collaboration (CUIC) & Daimler Financial Services India (DFSI) Private Ltd.**, at College of Engineering, Anna University, Guindy, Chennai from 29th to 30th July, 2015. The prize included a cash award of Rs.10,000 each and a trophy. Initially, the event was organized comprising of three zones (Chennai, Coimbatore and Madurai) that included more than 200 teams. Only 20 teams were short-listed after the Preliminary round on 22-07-2015. The preliminary round was based on the innovation and creativity of the participants where they were expected to highlight the code and their previous projects. The finals were conducted on 29th and 30th of July when they were asked to develop an App for the DFSI within a day. The Apps were judged by experts from Anna University and Daimler. Teams from CEG, Anna University bagged the first two places while the third place was won by the SSN-CSE student team.

Did You Know?

Only **8%** of the world's money is physical currency. The rest only exists on computers.

Report on Internship at VNC Technologies

In the months of June and July, I had the privilege of working at the Chennai branch of Virtual Network Consult (VNC) Technologies. In my time there, I worked in the following areas:

1. I contributed towards their efforts into automating testing, by writing python test scripts that verify various functionalities of their on-line portal.

2. I worked directly on the front-end and back-end of their on line portal (which was built using an Open Source CMS, Plone), helping them incorporate various new features of Plone like Plone Mosaic and PloneFormGen.

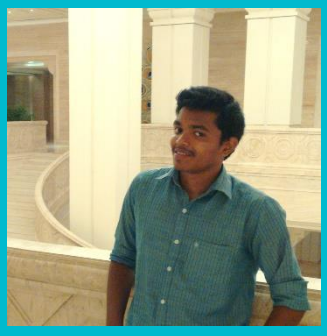
This internship taught me a variety of skills. I learnt how to code in Python and also learnt a bit of JavaScript, CSS and HTML. Working with a huge website, helped me understand all the nuances of Web development. I got a look into all the layers that go into making a website, which is capable of handling traffic of over a thousand users simultaneously. It was truly an enriching experience.

Varna Suresh

CSE -B

V Semester

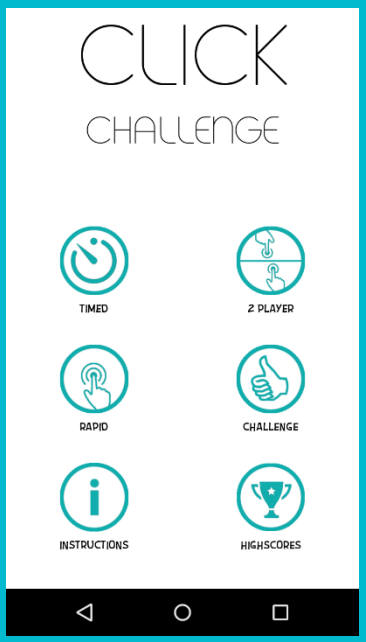
CLICK CHALLENGE



I, Anirudh T.S of CSE-A, 4th year have developed and published an Android application that is a game that tests your finger speed by clicking rapidly on a button against a running timer. It involves various challenges to be completed and hence the name CLICK CHALLENGE! There are multiplayer and rapid modes to instantiate a war of clicks with your friends! Beat your best by making high-scores in various modes! Enjoy clicking!

Play store link:

https://play.google.com/store/apps/details?id=gocash.borntowindevelopers.com.clickchallenge



InternshIp at Amazon

I got the opportunity to intern at Amazon as a result of winning a programming competition based on Algorithms and Data structures held at the Computer Science Symposium of College of Engineering, Guindy. The contest was followed by a short interview conducted by Amazon employees, which I managed to clear.

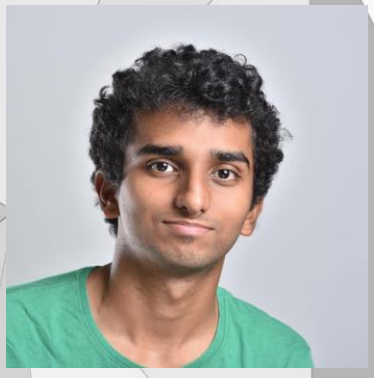
This internship was my first experience in the corporate world and developing something that uses many software principles and design methods. Before my internship, through my first year I was mostly taking part in Algorithmic contests, solving problems primarily without focusing on the coding aspect. However, the internship proved to be a change from what I was used to doing, and gave me an opportunity to improve my general programming skills, understand what it is like to develop in a team environment and document your work well for other developers to understand.

My project was a prototype project, where I had to develop a scripting engine for a kindle textbook creating application. This was a completely new project that needed to be started from scratch and was given to me to be done independently. Hence, I had the freedom to make my decisions and develop in my own style and show my creativity. Initially, it was hard to take in, as I found the corporate systems and software very sophisticated for someone who used to just solve problems based on algorithms. But as the internship proceeded, I got used to the systems and managed to develop a working prototype of the scripting engine. This was well received by my managers and some of the higher officials as I could come up with use-cases that would benefit the customers in a totally different way and the possibilities were endless with respect to what could be done with the interface I developed.

The work culture is what I liked the most during my internship. No one questions you. You can come to your office any time you like, leave any time you want, work from home if you want to. Dress code was casual, several recreational features were available, and food coupons were given on a regular basis. This gave the motivating environment for being creative and enjoying your work. However it also gives each employee the responsibility of reaching his or her goals without being continuously monitored. All this readily agrees with Amazon's work motto of "Work Hard, Have Fun, Make History".

I had a lot to take from this internship. I have become a better programmer, a better planner and a better communicator through this experience. I hope to get more opportunities similar to what I could get this summer.

amazon



Prashant Mahesh

CSE- A II Year

InternshIp at Amazon

I did my summer internship as a **SDE – Inter (Software Development Engineer)** in **Amazon Development Centre, Chennai**, for 2 months. In this internship, I was in the conversion team for Kindle Devices. I was assigned the project of converting Powerpoint presentations (PPT) to a format supported in Kindle devices. The challenge in this project was that I was the first one to work on the PPT conversion pipeline and I had to build it with minimal guidance. During the first 3 weeks, I had to thoroughly research about which software would efficiently and completely extract all the required data from a PPT. The distinguishing feature about PPT is animation and I was able to extract all the details related to it using a third party software in Java. The extracted data from the PPT was then serialised into a XML file. I created an in-memory model for efficiently storing and accessing the extracted data with respect to the basic features like texts and Images. I used TinyXml to develop a parser to parse through the XML and then populated the in-memory model with the extracted data.

After gaining a deep understanding about how the existing PDF conversion works and the structure of the required file format, I developed a conversion engine for the PPT model to a file format supported in Kindle devices. The conversion engine that I had developed is just for texts and images which could later be modified to add animation, smart arts etc. Since this project is still in its rudimentary stage, I made sure that it could be modified and understood easily in order to enhance the features that are converted into the required format. This conversion pipeline that I had developed is now being accepted and used as the basic structure for this conversion process. All through the course of my internship, I accumulated knowledge about the workflow and the intricate details addressed during a conversion process. I was exposed to the use of a build system developed by Amazon to maintain consistency throughout all the projects. The major skill I developed during this internship is to research diversely and code with impeccable simplicity, logic and documentation so that it could be later understood and modified by others in future.

amazon

S. Vidhyalakshimi

312212104117

CSE - B

Design and Analysis of Algorithms

The DAA Special Course was handled by Dr.R.S.Milton, Professor/CSE. The audiences were the final year CSE students. The course was designed to be handled in three sessions spanning three weeks. The first session included a basic introduction to the fundamentals in DAA with a few illustrations. The second session commenced with an introduction to the basic concepts in Recursion and the differences between Recursive and Iterative processes. The talk also covered the basic requirements to be met before Recursive operations can be applied in Programming. In addition to this, problems on merging and searching were also discussed. The final session covered in detail about Red-Black trees.

-Raghul Asokan, Sudarshan R
IV CSE B

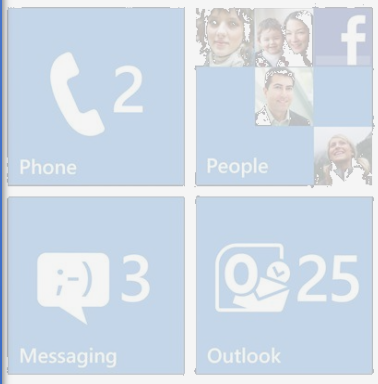
Moonlight

The night turned out to be flabbergastic,
The shadows struck a chord with the moon,
The grass played to the music of the wind,
The enchanting beauty of the dewdrops seemed to never end,
Nefarious, was the buzzing of the bees,
Captivating, was the sight of the trees,
The river flowed with all its might,
Intoxicating was that beautiful sight,
Like a sunflower I waited for the sun,
But, time never seemed to run,
I moved forward putting everything behind,
Hoping that even the darkest night will come to an end.

-T.Dhivya Bharathy
CSE – A, 2nd year.

THE CURIOUS CASE OF WINDOWS PHONE

‘Don’t you have Snapchat?’ ‘What?! You don’t have an official Facebook app?’ ‘Instagram is still in Beta?’ ‘How do you access Gmail?’ Welcome to the world of a Windows Phone user. These are a few of the many questions our Android and iOS brothers bombard us with every day. Don’t be mistaken, they are not here to express their sympathies, but rather to mock at us for not having all those supposedly cool apps. But we don’t let them dampen us. We know what a Windows Phone is capable of. A bit of history now, when Windows Phone 7 was first previewed by the Redmond giant Microsoft in February 2010, it created a storm. The Modern styled UI received rave reviews. Exaggerated flatness was a key component. The interface was slick, beautiful, fast and fluid. It was unprecedented for a mobile OS design, perhaps rivalled only in speed by iOS. Some critics felt that compared to Windows Phone 7, iOS felt dated. But it failed, admittedly due to the lack of apps and it missed a few important features a modern mobile OS must have. In 2012, Microsoft released Windows Phone 8, the successor to WP7. It added all the features which were missing in WP7. The problem of apps was still not solved. Windows Phone was caught in a vicious circle. Developers didn’t want to develop apps for WP because it had very little market share and very few people used it. Very few people used it because there were no apps. This problems still plagues the WP ecosystem. But WP has a fierce group of loyalists and I am proud of the fact that I am one among them. The first time I got my hands on a Windows Phone (WP8), I was lost for words, it was beautiful, so fast, so fluid, and oh my god! So responsive! I never felt the same when I tried the iPhone or any other Android phone. In comparison, they were close to being utterly dull and lifeless. My first phone is a Windows Phone and I don’t have any idea of jumping the ship. Speaking of iPhone reminds of a thing, Apple for long, particularly its iconic founder Steve Jobs was in favor of Skeuomorphic design for his company’s mobile OS, the iOS. Skeuomorphism is a design language where icons or objects on a screen represent their real life counterparts. When Tim Cook took over the reins of the Cupertino giant, he brought a drastic change to the next version of iOS, which was christened as iOS, a major leap. Apple had literally taken design cues from Windows Phone 8. Icons were made flat, there were transparent effects, and skeuomorphism was consigned to the past. Metro (or Modern) design was the future.



It appeared that there were some fans for Microsoft even at Cupertino. Still Windows Phone struggled to thrive. People like us didn't care. We didn't want apps. We didn't mind if WP didn't have a notification center. We fell in love with it. In love with an OS which made us happy every time we used it. We felt even proud when Google took a leaf out of Windows Phone and created Android Lollipop, the UI for which they promptly gave the name Material Design. The reason? Flat. Flat. Flat. The UI was completely redesigned. It was flat, kind of fluid and fast. Google fans won't accept it though. They won't even accept the fact that Google intentionally doesn't develop any apps of its services (Gmail, YouTube etc.) for Windows Phone. This is something hard to digest, when it comes to UI and design, you have to hand it to Microsoft. Coupled with such an OS and the brilliant hardware Nokia produced, the Lumia series of Windows Phones became hugely popular. The best products of this combination were the Lumia 920, the Lumia 930 and of course the monstrous Lumia 1020 with a whopping 41 Megapixel rear camera. Even the recently launched iPhone 6 doesn't stand a chance when it comes to a fight of the best camera smartphone against the 1020. The point is Windows Phone users don't want all those apps, fancy mind boggling hardware, we are in love with our phones and that is enough. I can't help but laugh when my friends with rupees 20K Android phones keep cleaning their RAM every now and then, because Windows Phone runs fluidly even on devices whose RAM is as low as 512MB.

Another area of concern for Android is availability of updates, as of now only 12% of Android users have Lollipop, the latest Android version on their phones, the rest of the devices might not even get the update. On the other hand every Windows Phone out there is guaranteed an update to Microsoft's next generation mobile OS, Windows Mobile 10. Windows 10 will be the first Operating System to run on almost all devices, Desktops, Laptops, Tablets, Mobile phones, various touchscreen devices, and Internet of Things (IoT) devices. A single OS to run them all. Despite its various flaws and lack of support from developers, we will stick with Windows Phone, ask us why? We don't know! We can't put in words the joy of seeing tiles on our Start screens zapping across the screen alive with useful information. Yeah, Live Tiles indeed! Windows Phone revolutionized the way humans interact with smartphones and touchscreens, making interaction easier, fun and fast. In return I extend my sympathies to all the Android and iOS brothers out there! I don't know how many of you have started typing hate mail to me right now! Still you can mail me at rahulch@outlook.in! I have a wonderful Mail app on my Windows Phone!!

- Rahul Ch
2nd Year
CSE

DIGITAL MARKETING AND MANAGEMENT

I, Vedavi Balaji, have successfully completed my internship with **Rentalook Enterprise**, Bangalore. I completed my internship on 10th July starting from 8th June.

Rentalook Enterprise is an online rental and purchase boutique website.

I worked for Rentalook under the domain digital marketing, management and content development.

Digital marketing included content developing in social media sites and also brand activation and brand marketing. Brand activation specifies the development of a brand and establishing the brand in the business world. Brand marketing involves advertising the brand and key customer interaction.

My work as content developer, included jobs such as developing blogs and content for the website. It also included creation of newsletter and media posts.

Operation management includes managing operations such as developing interactions with other businesses, establishing b2b partnerships and overall documentation and maintenance. It also involves b2c interactions and management.

It was a wonderful experience where I learnt the entire working of a start-up and the nuances of a start-up and the corporate world.

I learnt about marketing and brand activation for fashion brands. It was an experience in an e-commerce domain.

I also learnt about SEO, i.e., Search Engine Optimization. It basically means making the search engine produce relevant and accurate information regarding the brand, such as the brand's website and official social media pages. It is completely an organic advertisement process that is free of cost.

Increasing traffic to website through SEO involves major factors such as quality of website, including relevant phrases that are often searched, solid substance and content, giving relevant information and answers.

Overall I seeked this experience keeping in mind my dream of pursuing MBA for higher studies, and this was a complete package of all I wanted to know about marketing and management.

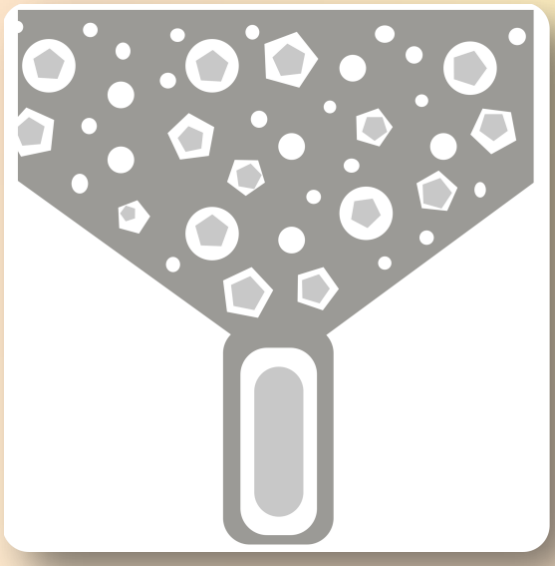
New apps from Extendsapk

Boom: - “the party Game”

It’s an interesting fun filled game played with friends and families during parties or gatherings. It’s a modern adaptation of the age old lot games wherein everybody takes turn and picks a task from the lot bowl. The players take turns and shakes if the person who gets boomed! He should perform the specified task.

Google Playstore link:

https://play.google.com/store/apps/details?id=in.extendsapk.boom.party.game&hl=en



Shake Torch – “Flashlight app”

Now just ((Shake)) to turn ON the Flashlight without even looking at your phone, just as easy as that! Which utilizes the built in accelerometer sensor in your mobile phones to detect your hand motion and toggle the FlashLight ON and OFF. It has an added “Blink” feature which acts as SOS signals in case of emergencies to alert you need help.

Google Playstore Link:

https://play.google.com/store/apps/details?id=in.exendsapk.shaketorch&hl=en

Check out my Online store at

www.extendsapk.weebly.com

Chaaran
CSE
4th Year

INTERNSHIP AT SPAN

During the summer, the three of us did an internship at SPAN Infotech Pvt. Ltd., Bangalore, from 1st-25th June, on Android Development. We developed an application called “Food On Go” which lets employees of SPAN order food from the cafeteria from the comfort of their desks.

In the first week, we were asked to go through Java tutorials and the basics of Android, while the requirements of the app were laid out. In the second week, tutorial sessions on Android and the Eclipse IDE were conducted by our mentors and basic concepts such as activities, services, layouts, etc. were discussed. We also came up with an SRS and started working on the app – incorporating new features as we learned them.

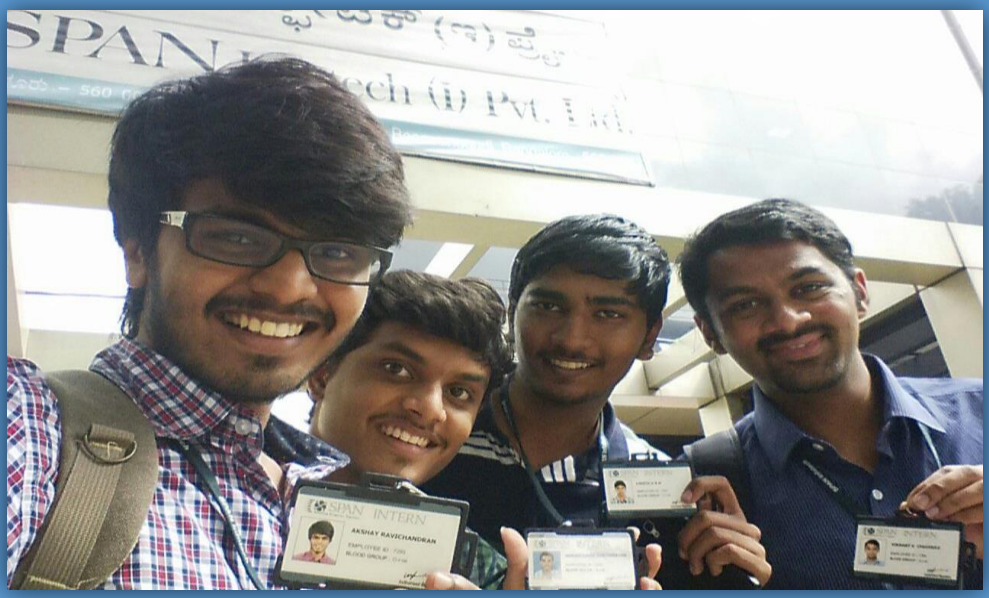
During the third week, we were able to showcase the first version of the app with just the basic features. We then improved the UI by adding colorful buttons and dialog boxes. By the end of the third week, we showed a more complete version of the app that our mentors found satisfactory.

Overall, our experience at SPAN was one of a kind. We went there without any knowledge on Java or Android but came out as confident individuals capable of becoming Android application developers in future.

Akshay R

A.R. Lohith

K. Harikrishna



The guest of honour was Mr. Vaidhya Nathan, Founder & CEO, Classle and a professional with 25-years' experience, who has made a stand in this world by building reputation. The session started with a brief introduction about Mr. Vaidhya Nathan following which the participants were given an insight about the topic. He motivated us by pointing out that, **"To stand out from others in this world, one needs to build reputations, which acts as a showcase of their abilities."** Gone are those days when building reputation can only be done in and around our locality. But now, with the blooming technology, '**Building Online Digital Reputation'** is just at our finger tips. He started the lecture with a story, about himself as he believes he knows himself better than anybody else. He explicated how he focused on building reputation and used it to progress in life. He emphasized on the fact that **'we are what our reputation is**' and elaborated on the necessity to leave a digital footprint. He shared some information about sites that allows one to achieve this, such as GitHub, Classle, LinkedIn and lot more. He encouraged the students to actively participate in online coding events and to continuously be updated with works in GitHub and to utilize online material like the ones their company provides. He briefed in a nutshell about what they do and what makes their company different from any other company working on the same area. On the ending note, we had some students who interacted with him in order to understand his company, thoughts and beliefs better. The facts he shared surprised us on the as to, how reputation can make a difference and indeed bring better opportunities.

Mohana Priya K
IV CSE A

Internship at IIITDM, Kanchipuram

The Indian Institute Of Information And Technology, Design and Management conducted a Research Internship RISC 2015 during the period June 1st- June 30th. They are doing research in various fields and we were given the choice to choose our own field of interest from among them. Their research fields included Data mining, Image processing, High performance computing, Data Structures and Algorithms, etc. I applied for Data Mining and CGPA seemed to be the only criteria for selecting the students.
The person under whom I was working was a faculty at IIITDM. And his student, who is currently pursuing Ph.D helped us and guided us throughout. They were currently working on compression techniques , both image and text and gave us a brief idea about the basics of data mining, frequent pattern mining, clustering, classification and the various algorithms used like Apriori, Frequent Pattern Growth, K-means clustering, Naïve Bayes Classification, etc. We were exposed to a set of problems which helped us to understand the concepts better and boosted our ability to think beyond the normal. A set of topics were given for us to start working on, from which we can choose our topic of interest and work either individually or in a team. I chose to go with text compression. They had already come up with a new algorithm to compress text data using frequent pattern mining and I was asked to devise a new and more efficient algorithm leading to a greater compression using one of the frequent pattern mining algorithms. I worked in a team of two and within a period of two weeks, we were able to come up with an algorithm which we then implemented in R Studio and generated the results. The work is not complete yet and it needs to be optimized. We also started writing a rough draft of the paper which is yet to be completed. It was an overall good experience and I got the chance to know the various aspects of Pattern Mining which I believe will be quite useful for me later. I also got the chance to bond with the knowledgeable students from other colleges and also got to know what they were working on. The person who guided us helped us a great deal by providing us with all the materials like Papers, Journals, Books, etc that we needed. Apart from the workload, we also had the chance to be engaged in other fun activities.

-Parinitha GK, CSE B, 3rd year

The Indian Institute of Information Technology, Design and Manufacturing (IIITD&M) conducted a month long internship programme- Research Internship in Computer Science(RISC 2015) in the month of June. The internship covered a fairly large number of fields in computer science such as Data Mining, High Speed Computing, Human Computer Interaction, Data Structures, etc. The field I opted to work under was Data Mining, more specifically, Text Mining.
In the first week of the internship, the faculty taught us various text mining algorithms such as Apriori, FP-Growth, etc. At the end of the first week, we were exposed to a variety of problems that they were already working on. We had to choose a problem and work on it until we solve the problem. My problem was to compress text data using Frequent Pattern Mining. We were guided by the faculty on how to approach the problem. I spent two exhaustive weeks working on a solution for the problem and finally came up with a solution along with the implementation. The next step was to gather results for various compression data sets. After this, I proceeded with the writing of the paper. The faculty explained to us the art of paper writing. With their guidance, I was able to successfully complete the initial draft of the paper before the end of the internship. I wish to work with them soon to complete the paper and publish it in a good Journal.

-Vishal T.V.. CSE – B. 3rd year

Research Internship in Computer Science (RISC 2015) was conducted by Indian Institute of Information Technology Design and Manufacturing (IIITDM) during the period June 1st-30th. Research topics included various fields like Data Mining, Human-Computer Interaction, and High Performance Computing etc. I selected Data Mining and to be more specific, I worked on Text Compression. The faculty staff at IIITDM gave us a brief idea on some of the data mining algorithms like Apriori, Frequent Pattern Growth etc. We were exposed to the various problems and drawbacks in the current algorithms that guided as to how the algorithms can be improved.

I worked in a team of two. My problem was to use data mining algorithms in the field of text compression to improve the compression ratio. After two weeks, we were able to come up with a new algorithm for text compression algorithm (Huffman) which gave us a better compression ratio than the conventional one present. After generating results using standard datasets, we began working on the paper writing process. We completed a draft of the paper. Rest of the work is still in process. Overall experience was great and I was able to learn a lot from it. It also gave me an idea as to what researchers do and how to go about doing research. I also learnt how to write and publish papers in journals and conferences.

-Vignesh G, CSE - B, 3rd year

This is a report on our amazing experiences during out internship at the **Indian Institute of Information Technology, Design and Manufacturing**. We were given with a variety of fields to work on, some of which include Data Mining, Image Processing, High Performance Computing, Data Structures etc. Due to my interest in Data mining, I chose that field and worked under Dr.Sivaselvan, a Professor in the Computer Science and Engineering Department at IIITD&M.

Their entire problem set required solutions for compression using frequent pattern mining. We worked on text compression and image compression. Especially, **I worked on lossy image compression using sequence mining**. The internship provided a great opportunity to all of us. We had our first research experience. This instigated me to become a computer scientist and take research as my profession. This internship served as a good start to my career. In the sense, for people with little knowledge in the field, the introductory basic classes helped a great hand. These classes were in the first week of internship and in the second week, we were asked to work on the problems. It took us nearly two weeks to come up with a working solution for our problem. The next week, we spent optimising our code, and thereby improving our results. This was indeed the first time we actually tried scaling up to a large input base. We also learnt how industry standard algorithms worked, and also traced their origins. The very feel of coming up with an algorithm and seeing it give results that were comparable to standard algorithms was a bliss. This internship made me realise that there is a world of knowledge out there to acquire. This summer indeed turned out to be a fruitful one. **One summer to remember for a lifetime.**

-Vijay V, CSE – B, 3rd year

Research Internship at the University of Montreal

I am currently carrying out my research internship at the University of Montreal, under Professor Mickael Begon, dept. of Kinesiology. This research internship was offered to me under the MITACS Globalink Research Internship program that is offered to undergraduate students in heir penultimate year of study after a rigorous screening process.

During my 12 week long internship, I aim to optimize human muscle movements such as jumps using software like MUSCOD and GPOPS. MITACS organizes various campus tours and industrial visits to ensure that we are able to make the most of our time here in Canada. It has been amazing experience so far and I will take home many lessons from my time here.

Mitacs

Samiya Nasim

IV CSE B

INTERNSHIP EXPERIENCE AT AIR INDIA

While most of our friends were doing internship in the technical field, we did ours in the management field. A two week long internship at Air India, taught us many incredible things, the first being the working and activities of a typical government office. Having said that we learnt a lot about the working of the Personnel Department. We went through the case files of different categories, some of them twenty years old. We also learnt about the functions of the Personnel Department, their Acts(a legal perspective), their APAs(Annual Performance Appraisals) and we had an one to one interaction with the higher authorities who briefed us about the company policy. Overall it was an interesting learning experience and in the end, we submitted a project titled,"A General Study of the Personnel Department in Air India".

Shwetha Padmanabhan

R. Vijayaraghavan (III Year B)

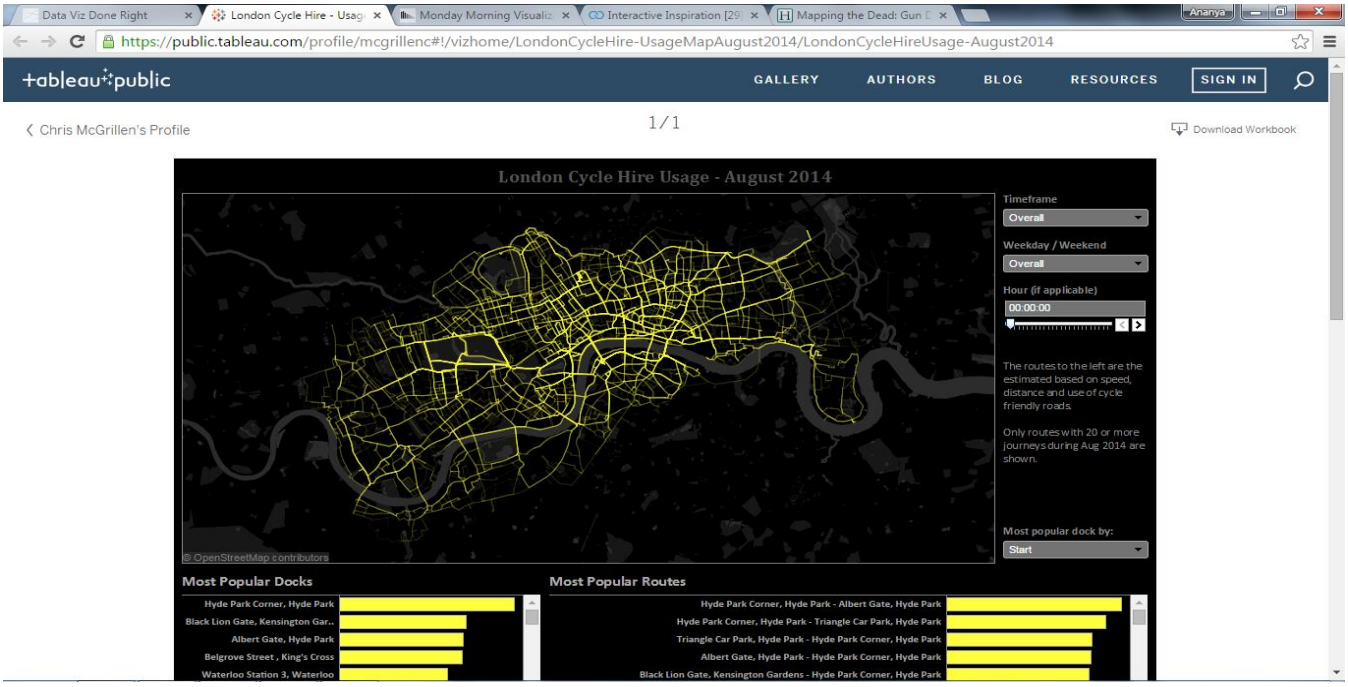
एअर इंडिया
AIR INDIA

Data Visualization and Tableau

During the month of June, I interned at SwaaS Systems, a software start-up in Guindy. I worked in the field of Data Analytics and Visualization, mainly involving Business Intelligence. Data Visualization is the process of representing complex data reports in the form of easy to comprehend, interactive graphical dashboards, called a Visualization or Viz.

Tableau is a popular Data Visualization tool that is highly user-friendly and doesn't require a lot of technical knowledge. The full version of the software is very expensive, but there is a free version exclusively for students. This can be installed from the Tableau website after providing a valid proof (our college ID card should do). Tableau is great for exploratory data analysis, to find relationships and patterns between different data sources.

With the proper data, Vizs can be created for any field, not just for business. Tableau Public is a platform where data enthusiasts all over the world upload their work. These range from analysis of boxing statistics to usage of cycles in a city. They are all visually stunning and definitely worth taking a look at. www.datavizdoneright.com is a blog that contains a compilation of the best of these. Do check it out!



- Ananya Ganesh
3rd Year CSE-A

Data Scientist at Serendio Inc.

I have been interning as a Data Scientist at Serendio Inc., which is a Text Analytics start-up. I also served as the open source community manager of Serendio Inc. It is actually a 6-month intern where I had to work from office for 2 months and from home for 4 months. During my intern period, I have been researching on **Topic Modelling** to develop a product that can predict the list of topics from which any text is built or composed. The approach that I used was based on **Google's Word2Vec** and so the final product is equipped to learn any number of topics. An added feature was that it can also accept an explicit list of topics to be learnt. One other product which I developed was a **Universal Multi domain Sentiment Scorer** supporting text from all types of sources and domains. Presently I am improving this model by automating the domain identification part using topic modelling on the text to be analysed. This would help in detecting the domain of the text and thus predicting the sentiments based on the domain. One of the unique features of this model is that, it will score the text based on sentiments from -5 to +5 (the most negative to the most positive), instead of giving just a binary positive or negative classification. As always, it does not stop with building cool algorithms, but we also need to cater it to the end users around the world. This would require a lot of effort too. This is where, three internees, including me, developed **a web app** using play framework with basic tools like HTML,CSS,JS to demonstrate the utilities of our text analytics package. We also developed a REST API interface, apart from the GUI as the number of API calls is limited in the free version though.

Furthermore, I developed a **parser** that is capable of handling unstructured social network text data that is capable of handling emoticons, abbreviations, hash tags, spelling mistakes, etc. I applied the same to the unstructured text before predicting the sentiments/topics, thus making my models more accurate. With Serendio being a start-up, I should say the learning curve was exponential during this internship.

The various utilities that I developed during my intern have been added to their core text analytics engine called Diskoveror of which they will be bragging of in next 5 years, if not now.

All of this software has been open sourced under Apache Licence (v2.0) and available at my github link: https://github.com/tpsatish95 . A detailed technical blog on this is to be published on Serendio's website soon; So stay tuned!

IITM SUMMER RESEARCH FELLOWSHIP

As soon as I finished my Numerical Methods examination on 18th May 2015, I was excited to start my internship at IIT Madras under Dr. Dharanipragada Janakiram. The happiness of getting inside after showing my call letter was even greater than the happiness of having finished my 6th semester exams, as it filled me with a bout of content and confidence, being one of the 17 students who were selected for the internship among the 2200 applications.

I worked in the Distributed and Object Systems (DOS) Lab, CSE Department in a team of size two from 18th May to 17th July 2015. The first time, I went there all alone, without any acquaintance, I was lucky to walk into our senior Sowmya S. Sundaram, who was my sole companion throughout the first week. Within a week, I found myself comfortable in the DOS Lab, thanks to the people there- Abhijit C.S, Abhinay Bulakh, Aditya Sapate, Chaitanya Munukutla, Muthu Ganesh and Nikul Prajapati. Dr. D. Janakiram told me that Nikul Prajapati would be my project mentor and that we would be working on the same project. Our project is based on real time big data processing. As I started working, I made tons and tons of mistakes and started learning from them. I'm thankful to have a project mentor and partner like Nikul from whom I learnt the qualities of diligence and patience. Each day in the lab made me realize that we students need to look way beyond the class room learning and the so called 'prescribed syllabus' and I would like to thank Dr. D. Janakiram for giving me this opportunity.

As I leave this place, I am glad that it was a knowledgeable experience and I would like to thank our HOD for letting me go through this Summer Research Fellowship.

S Sanjana

IV Year, CSE B

The art of dreaming

There is something wonderfully simple about the way young children see life. It is a way of seeing in which anything is possible, and this means that they see no reason why they can't grow up to be an astronaut or a cowboy or a princess.

I personally remember a time when I truly believed that I would grow up to be a famous historian unraveling mysteries. As I grew older, this dream changed to becoming an undefeatable lawyer, who becomes a great politician. Somewhere along the line though, this dream faded and for a long time I never properly replaced it.

For some reason, I stopped dreaming. To be more accurate – I stopped believing my dreams were possible.

We All Dream

"All men dream; but not equally. Those who dream by night in the dusty recesses of their minds wake in the day to find that it was vanity; but the dreamers of the day are dangerous men, for they may act out their dreams with open eyes, to make it possible." – T. E. Lawrence

As I look around myself each day, I don't think I am the only one who has experienced this. So why is it, then, that we forget how to dream the beautiful dreams of our childhood?

Personally, I believe that we are taught to forget. As Bill Strickland says in Make the Impossible Possible:

"We're told how complicated life is, told we can't do this and we're not smart enough or fast enough or talented enough to pursue that. And in hearing that – in responding to these words whose effect is to close doors and narrow our thinking – we make ourselves poor… in our imagination and in leading a meaningful life."

So the big question is: **how can we learn to dream again?**

Let Go

Lately I have started to dream again like I did as a child. From this I have come to a powerful realization: **let go of the need to know *how***. I would quickly discount my dreams as mere fantasies because I could not immediately imagine how these dreams would become reality. But the truth is, just because my mind doesn't immediately know how it will accomplish something, it doesn't mean it is impossible.

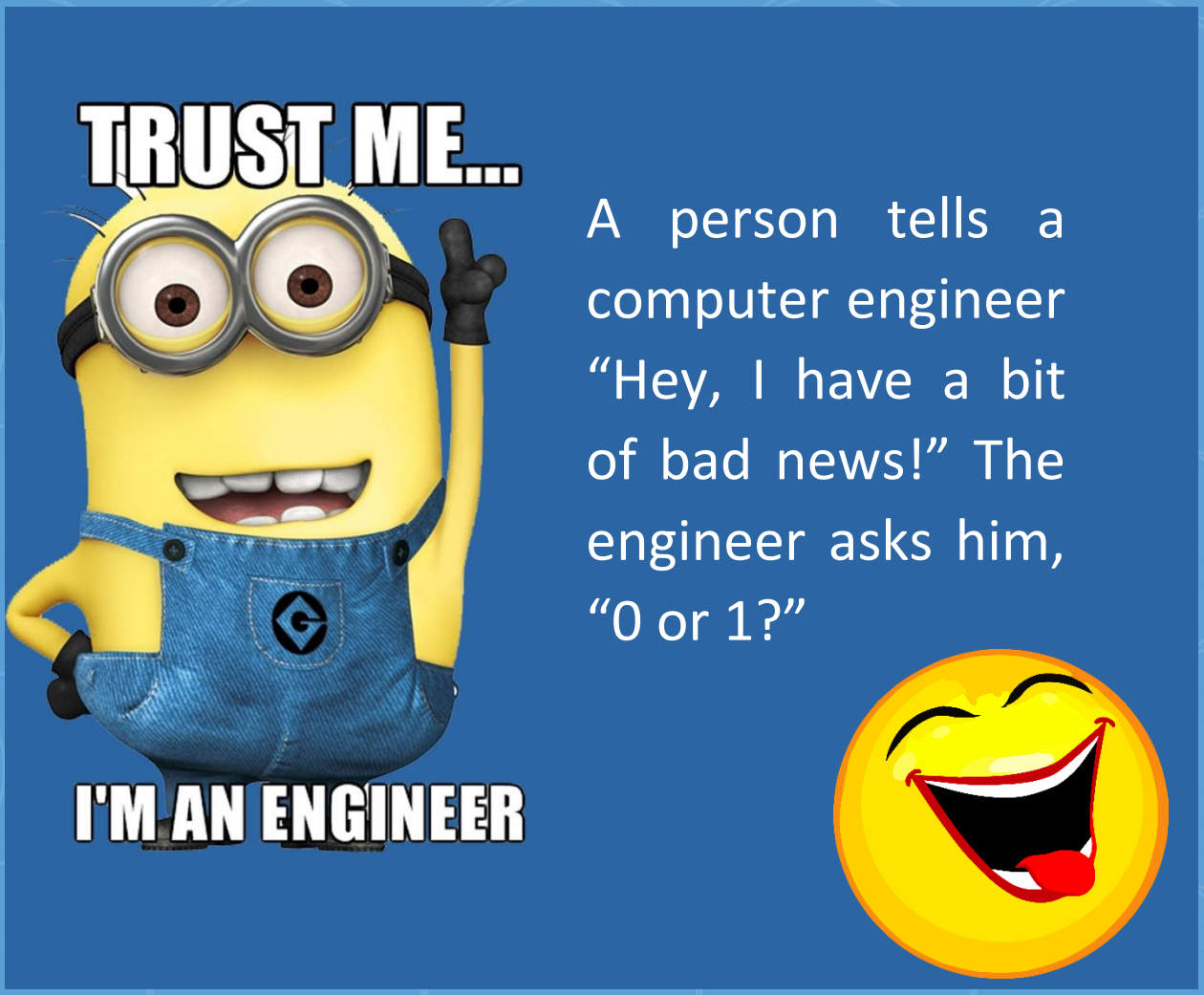
It can be uncomfortable to let go of the need to know how as this can make us feel vulnerable or silly. But if we are to dream to our full potential, it is essential that we learn to have faith in our abilities. This means we should dream wildly without trying to know how these dreams will become reality. There will come a time when we should develop a plan, but initially we should enjoy the beauty of our dreams and trust that a path exists to realizing them.

- **R.Vijayaraghavan**
- **CSE – B, 3rd year**

ALUMNI ACTIVITIES

1. **Ashraya Ravikumar**, a 2015 passed out alumni of SSN, BE-CSE has gained admission to the Ph.D. Science Program in Physical and Chemical Sciences in the department of **Molecular Biophysics Unit** at the **Indian Institute of Science, Bangalore.**

2. **Indu Joseph**, (2013-2015) M.E Batch who did her internship at **Caterpillar** has been offered a job there.



My Journey to Flipkart

It's been almost 4 months since I entered the family of Flipkart. I work in the Ads Platform of Flipkart as a Software Developer Engineer in Test-1. And I would like to share a few words about how I got such an opportunity. It started when Flipkart came for a pool campus recruitment drive, where SSN along with 4-5 other colleges was invited. The first round of the process was Online Programming, conducted through Hackerrank. We were given two problems to solve within an hour. About 2 weeks after the first round I got a call from Flipkart informing me about the second round of the process which would be happening through a Skype call. The interviewer evaluated my thought process and ideas. Most of the questions were related to the projects I did, the problems I faced while doing them and how I found a solution for them. One of the questions was, "What is your favourite online application? If you were asked to make two enhancements to the Application, what would they be?"

The thing about Flipkart is that the people here are highly experienced and rarely recruit freshers without an Internship. I was offered an Internship at Flipkart, Bangalore for a period of 3 months starting April. During the Internship, I was assigned a Mentor to ease me into the work environment and guide me through the learning. What they look for in a candidate, is not how technically sound he/she is, but how eager they are to learn new things, how quickly they understand a problem and their approach to solve it using whatever they have learnt.

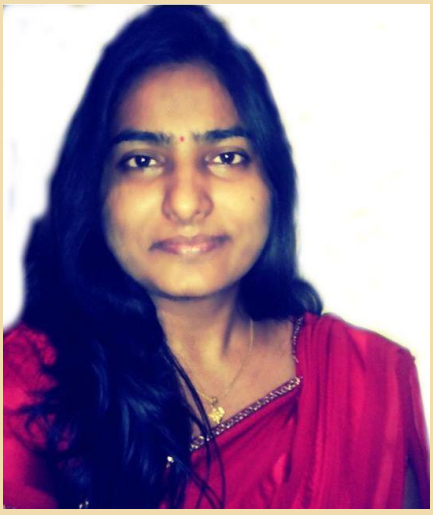
I primarily worked on building Automation Frameworks for testing some of the components. I also developed tools to facilitate Performance Testing. Flipkart believes in an open culture. I was given complete freedom to choose which language to write the frameworks and tools with, the technologies to use and such. An admirable thing about working at Flipkart is that everyone's voice will be heard and considered irrespective of their designation. My work was reviewed by my mentor who gave valuable feedback for doing things more efficiently. Near the end of my Internship, my mentor and my manager evaluated my performance and I was offered the position of Software Development Engineer Test - 1. It's been a wonderful journey that I hope to continue, and gather valuable experience and knowledge during my time at Flipkart.

- Susindaran
  (BE 2011-2015 Batch)

An Experience to Cherish

One of the greatest opportunities I feel happy about utilizing was the chance to be a post-graduate student in the Department of Computer Science and Engineering, SSN College of Engineering. The infrastructure (library, class atmosphere and hostel) attracted me and induced in me the interest to learn and achieve. The CSE department staff especially my guide (Dr. Shomona Gracia Jacob) gave me guide lines and motivated me to perform well in spite of my health constraints. The project work induced in me further interest to study and I decided to pursue Ph.D in my field of interest. I looked out for a University that will not require much travel and where I could stay close to the Supervisor and the University on account of my health condition. I tried my luck at the VIT PhD admissions. I wrote the written test and attended the oral interview. I was thrilled to know that I was selected to pursue Ph.D course in VIT Chennai.

I believe that this feat was made possible because of the continuous motivation and the research atmosphere at SSN institutions. I specially thank Dr. Chitra Babu, HOD-CSE, my project Supervisor Dr. Shomona and all my faculty and friends who have extended all the support and care I needed during the course of my study.



Kavitha
ME Alumni

Working in the Corporate World

– *An Alumnus' Account*

Hello, this is Athiswamy R, working as Senior Systems Engineer in Infosys. I completed my B.E (CSE) from SSN College of Engineering in 2002. I feel privileged to have passed out of such a prestigious Institution. When I entered the corporate world I felt pretty comfortable in adjusting to the corporate demands as we have been trained for it right from the beginning of our college days.

In college, we have been asked to work in the Linux environment which is vital in IT sector and this gave me an edge over my other colleagues who had no such experience. Also, we have been trained to do programs on our own which helped us code in an independent and efficient manner. The students from CSE department are strong in the concepts that are taught at college level and hence they can be easily trained and deployed in any unit - this is evident from the fact that our department students used to finish Infosys training in Fast Track batch.

In a project, it is often a SSN CSE student who breaks the ice with some good technical ideas. All this is possible because of the skills we picked up in college that helped augment our technical skills. When asked to do presentations, SSN students stand out once again. The exposure to new technologies like cloud computing, big data etc., during our college days gave us a cutting edge from other college students. Our department used to encourage students to take part in National/International level conferences and technical workshops which helps the students to think extensively and propose new solutions.

Our Symposium "Paradigm" is a national level technical symposium which is managed by the students, instilled in us the motivation to manage events and fostered the art of team spirit. Finally I want to add some words about the faculty who made people like me achieve our dreams and have a good professional career. The teachers in our department are highly skilled and have in depth knowledge of the subjects and can be contacted at any time in case we don't have a clear idea about any topic and they are willing to explain the concepts till we get a clear understanding. Thank you SSN for making me the person I am now.

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