

CSE newsletter

Smriti

memory archives



Sneak Peak

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From the HOD's Desk



Dr. Chitra Babu

As we enter into another promising academic year, I am very happy to welcome our newest faculty member Dr. Sriram Kailasam, who hails from the same research lab at IIT Madras, where I pursued my Ph.D. I gratefully acknowledge the efforts of Milton sir, Shomona and Felix in successfully uploading the NBA report for the Postgraduate course. For several years now, both our undergraduate as well as postgraduate students have been using LaTeX for preparing their project reports as well as presentations. However, thanks to Prasad and Bala, this is the first time, we managed to organize a one day workshop on LaTeX. My appreciations to Milton sir, TTM, Sheeraz and Suresh for sharing their LaTeX knowledge with the M.E students. I also would like to congratulate Suresh for filing two patents along with the M.E students. As a mark of Teacher's day well in advance, our faculty members Shomona and Valli have exhibited their poetic talents.

Most of the time period covered by this issue of the newsletter is summer. One would think that what could possibly be an interesting news to report during summer. But, with students of our department, there is never a dull moment. Congratulations to our second year students Siddharth, Sudarshan and Naveen who have won second prize in the nation-wide AlgoRhythm contest conducted by Microsoft Research, India under the Massively Empowered Classrooms(MEC) initiative. I appreciate their faculty mentor Bala for constantly motivating them. Our student Ramya Sriraman is pursuing a very prestigious internship at Montreal, Canada. Several students did their internships at IISc, IMSc, CMI, IITD&M, TCS, L&T Infotech and other places. It was wonderful to hear the news from one of our recently graduated students, D. V. Vignesh that he has been placed in eBay PayPal with a CTC of 15 Lakhs per annum through an off-campus interview arranged through our college placement cell. Congrats DV. I also congratulate the III year student Chaaran for winning the first prize in Mobile App contest at Jeppiar Engineering College.

Another heart-warming news is that our recently graduated PG student Pradeep has joined IIT Kharagpur for pursuing Ph.D. Ten to fifteen of our students are leaving for US to pursue their Master's degree. My best wishes to all of them. Our alumni, Narendran and Soundarya have shared their experiences.

Wishing you all a fun and activity-packed semester ahead.

WELCOME ABOARD

Dr. SriramKailasam completed his BE in IT from Mumbai University in 2005. After working in the software industry for 1 year, he joined IIT Madras for MS. He upgraded the MS programme to PhD programme and completed his PhD in July 2014 under the guidance of Prof. D. Janakiram. His main research projects have extended the MapReduce framework along three dimensions: (a) handling skews in a MapReduce job (Chisel, Chisel++) (b) scaling a MapReduce job across multiple clusters connected by the Internet (BStream) (c) introducing new abstractions for modeling complex algorithms e.g. support for recursive applications (GMR). His current interests include designing algorithms for cloud-assisted systems, wide-area stream analytics and distributed event processing.

Some of his publications are:

- SriramKailasam, PrateekDhawalia, S J Balaji, Geetalyer, and JanakiramDharanipragada, "Extending MapReduce across Clouds with BStream," accepted in IEEE Transactions on Cloud Computing, March 2014.
- JanakiramDharanipragada, Geetalyer, and SriramKailasam, "Generate-Map-Reduce: An extension to Map-Reduce to support shared data and recursive computations," Concurrency and Computation: Practice and Experience, vol. 26, no. 2, pp. 561-585, Feb. 2014.
- PrateekDhawalia, SriramKailasam, and JanakiramDharanipragada, "Chisel: A Resource Savvy Approach for Handling Skew in MapReduce Applications," in IEEE 6th International Conference on Cloud Computing (CLOUD'13), Santa Clara, CA, USA, 2013
- Sriram Kailasam, N.Gnanasambandam, JanakiramDharanipragada and N. Sharma, "Optimizing ordered throughput using autonomic cloud bursting schedulers," IEEE Transactions on Software Engineering, vol. 39, no. 11, pp. 1564-1581, Nov. 2013.



Dr. SriramKailasam

Assistant Professor

WELCOME TO CSE

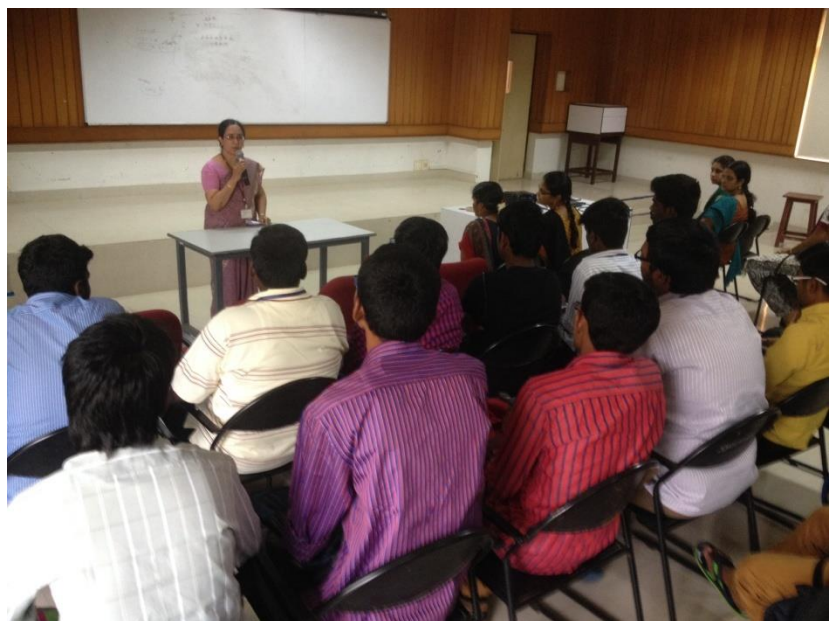
' TOGETHER WE CAN '

Lateral Entry Students – Orientation Programme

An Orientation Programme for the students admitted directly to the 2nd year through Lateral Admissions was conducted on 19-07-2014 (Saturday) at the Seminar Hall in the Department of CSE. The programme witnessed complete attendance of all the lateral entry students. All the IIIrd semester subject handling faculty and faculty mentors also attended this orientation program.

The programme commenced at 8:30 AM with the Head of the Department Dr.Chitra Babu welcoming the new entrants and motivating them to cope with the standards of the SSN Institutions. Dr.Chitra Babu clearly outlined the rules and regulations in vogue in the CSE department and encouraged the young minds to adhere to the same. She elaborated on the importance of improving their language, programming and presentation skills and emphasized on the need for regular attendance to cope with the syllabi.

Dr.R.S.Milton, Professor - CSE, briefed upon the importance of punctuality and regular attendance to theory and laboratory sessions. He concisely stated that hard work and perseverance will always give their rewards and thus motivated the students to continue putting in their best efforts.



This was followed by a briefing on each subject by the respective subject handling faculty of the IIIrd semester who succinctly summarized the objectives of the study, the books to be followed and the way in which the subject should be studied.

The orientation programme concluded at 9:30 AM. A two-week special coaching programme for Lateral entry students was conducted from 19-07-2014 to 01-08-2014 where each subject was allotted 3 sessions of 1.5 hours (4:00 PM to 5:30 PM) to ensure that the lateral entry students were well prepared for the Unit Tests and to enable them get on par with the regular batch of students.



Save your time???

Use Keyboard Shortcuts

1. CTRL+B (Open the Organize Favorites dialog box)
2. CTRL+E (Open the Search bar)
3. CTRL+F (Start the Find utility)
4. CTRL+H (Open the History bar)
5. CTRL+I (Open the Favorites bar)
6. CTRL+L (Open the Open dialog box)
7. CTRL+N (Start another instance of the browser with the same Web address)
8. CTRL+O (Open the Open dialog box, the same as CTRL+L)
9. CTRL+P (Open the Print dialog box)
10. CTRL+R (Update the current Web page)
11. CTRL+W (Close the current window)

Where to use???

Web browser

LaTeX Workshop

19-07-2014

A one day workshop on Latex document preparation system was conducted on 19-07-14 for II year P.G. students from CSE and Software Engineering. It was aimed at giving an introduction to LaTeX and also to equip students to use it especially for the project work.

The day began with an introductory talk and presentation by Dr. T.T. Mirnalinee on the quality of document preparation and where LaTeX comes handy and how it is essential to researches in preparing a quality document. Topics such as format of the document, typesetting options, mathematical functions were discussed in conjunction with several examples. This set the right environment for a hands-on tutorial.

Students were already instructed to install TeXStudio / TexMaker / TeXLive on their laptops. Mr. J. Suresh conducted an interactive tutorial on working with TexStudio and implementing the concepts that was taught in the previous session. Formatting text, Verbatim, working with tables, image, equations was also a part of this session. After a tea break, Dr. S. Sheerazuddin handled a session on the more complicated stuff such as preparation of journal articles and bibliographies. The usage of *tikz package* and how it can be used to create quality images was very interesting, and was indeed something that will be implemented extensively in documentation work.

The afternoon session was handled by Dr. R.S. Milton, where Beamer package and the nuances of using it to deliver an excellent presentation were discussed. It was a day well spent, discovering and learning about LaTeX.

Tephilla Prince

II M.E.(S.E)



Experience with Software Engineering community – SBST workshop '2014

I had a chance to participate in the 7th International Workshop on Search-Based Software Testing (SBST 2014) held in Hyderabad, India, on June 2–3, 2014, which was co-located with ICSE 2014. SBST is a field in software testing that concentrates on optimization techniques. ICSE is one of the most prestigious conferences in the Software Engineering field, where many researchers gather from all over the world, to share their knowledge. There were many workshops co-located with ICSE 2014. The venue of the ICSE 2014 conference and the other workshops was the International Convention Centre, Hyderabad, 25 km away from the city. The program chair for this workshop was Dr. Phil McMinn and Dr. Mark Harman. Dr. Mark Harman was the first person to introduce this area (SBST) to the Software Engineering community.

Two notable keynote speakers for this workshop, were Dr. Lionel Briand (Professor and FNR PEARL Chair, Interdisciplinary Centre for ICT Security, Reliability and Trust, University of Luxembourg) and Cristian Cadar (Senior Lecturer in the Department of Computing, Imperial College, London). Dr. Lionel Briand spoke on the topic of applying SBST in the industry, while Cristian's talk focused on the combination of SBST with its sister technique in testing for generating test cases – Dynamic Symbolic Execution. In addition, there was a paper presentation session, and Ph.D-work discussion related to this field. During the discussion sessions, the participants had opportunities to participate in ongoing research activities and plans to nurture this field in India. Of course, it was a very memorable and wonderful experience together with the Software Engineering community, especially with SBST.

-Dr. A. Chamundeswari



Dr. A. Chamundeswari

Microsoft readies Windows Phone 8.1 update with smart covers and big-screen support

Microsoft is taking a few more cues from Android in the next update for Windows Phone.

With Windows Phone 8.1 Update 1, phone makers will be able to sell smart screen covers that reveal certain information when closed. The new feature was revealed in developer documents, discovered by [WPCentral](#) and [Nokia Power User](#).



Paper publications

1. Priya.R, B. Prabavathy and Dr. ChitraBabu published a paper "Concurrency Control In Deduplication Enabled Cloud Storage" at the Fourth National Conference on Advanced Computing Applications and Technologies (NCACAT-2k14) held at Easwari Engineering College on 7th May 2014.
2. Pradeep.R, Dr.ChitraBabu and B.Prabavathy published a paper "Location Independent Chunk Index ForDeduplicated Cloud Storage" at the National Conference on Advanced Computing Applications and Technologies (NCACAT-2k14) held at Easwari Engineering College on 7th May 2014.
3. Ragupathi.T and N. Sujaudeen published a paper "Dynamic Data Replication for HPC Analytics Applications in Hadoop" at the Fourth National Conference on Advanced Computing Applications and Technologies (NCACAT-2k14) held at Easwari Engineering College on 7th May 2014.
4. Suresh Jaganathan and KarthikaVeeramani presented a paper titled "Intensified Regularized Discriminant Analysis Technique" at the IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE-2014) organized by Poornima University and Poornima College of Engineering, Jaipur, India on May 09-11, 2014.
5. Deepiga A.S., SenthilVelan S. and Dr. ChitraBabu presented a paper on Empirical Investigation of Introducing Aspect Oriented Programming across versions of an SOA application, at the proceedings of the 2014 IEEE International Conference on Advanced Communication Control and Computing Technologies, Tamil Nadu, pp. 1732-1739, 2014.
6. Vinobha A., Senthilvelan S. and Dr. ChitraBabu, published a paper on the "Evaluation of Reusability in Aspect Oriented Software using Inheritance Metrics", at the proceedings of the 2014 IEEE International Conference on Advanced Communication Control and Computing Technologies, Tamil Nadu, pp. 1715-1722, 2014.
7. Parthiban S., Senthilvelan S. and Dr. ChitraBabu presented a paper on the "Design Level Metrics to Measure the Complexity across versions of AO Software", at the proceedings of the 2014 IEEE International Conference on Advanced Communication Control and Computing Technologies, Tamil Nadu, pp. 1708-1714, 2014.

8. ShanmugaPriya.R and Kanchana.R, presented a paper "AOP Based QoS Monitoring of Dynamic Web Service Compositions" at the IEEE International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pp. 818-822, 2014.
9. Sindhu.S.M. and R. Kanchana, presented a paper on " Security Solution for Web Service Attacks in a Dynamic Composition Scenario" at the IEEE International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pp. 1913-1917, 2014.
10. A.CeliaRoseline and V.S.FelixEnigo, presented a paper on "Fuzzy query processing in Wireless Sensor Networks for Animal Health Monitoring", at the International Conference on Advanced Communication Control and Computing Technologies, held at Syed Ammal Engineering College, Ramanathapuram, Tamilnadu, May 08-10, 2014, pp. 1094-1098.
11. Martina Maria Pushpam and V.S. Felix Enigo, presented a paper on "Energy-Efficient and Fault Tolerant Spatial Query Processing in Wireless Sensor Networks", Syed Ammal Engineering College, Ramanathapuram, Tamilnadu, May 08-10, 2014, pp. 790-794.
12. Geethapriya.M, and A.Chamundeswari presented a paper on "Parallelized Genetic Operations for SBST using HadoopMapReduce Framework", at the IEEE International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pp. 1686-1691, May 2014
13. Nandhini.E and Chamundeswari.A presented a paper on "Parallelized ACO Algorithm for Regression Testing Prioritization in Hadoop Framework", at the IEEE International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pp. 1568-1571, May 2014.
14. Beulah A. and Nita Mary Ann published a paper "A New TCP Algorithm to Reduce the number of retransmissions in Wireless Networks" at the National Conference on Advanced Computing Applications and Technologies (NCACAT-2k14), held at Easwari Engineering College, on 7th May 2014. Nita Mary Ann presented the paper, which was chosen as the best paper. It has also been published in the International Journal of Advanced Computer Technology, Special Issue. ISSN: 2320-0790

Microsoft faces anti-monopoly probe in China

An anti-monopoly investigation into US technology giant Microsoft has been launched by Chinese authorities.

China's State Administration for Industry and Commerce - the body responsible for enforcing business laws - said it was looking into "alleged monopoly actions" by the company.





Apple refreshes MacBook Pro line with minor upgrades, no price rise

The [rumors of Apple's updated MacBook Pro](#) line were true -- after a brief downtime, the Apple Store's back up with new MacBook Pros.

Unlike the previous two years, Apple didn't [make any Mac hardware announcements at its WWDC keynote](#) this year, which left users eagerly waiting for news of new Pros. Fans of the aluminum-clad [laptops](#) may be a little disappointed, however, as Apple has given the new MacBooks only a minor speed boost.

15. S. Kavitha presented a paper titled "A Classification System for Fused Brain Images using Support Vector Machine" at International Conference on Modelling, Optimization and Computing (ICMOC 2014) organized by Noorul Islam University, Kumaracoil.

16. P. Suba and B. Bharathi published a paper titled "Analysing the performance of speaker identification task using different short-term and long-term features" at the IEEE International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pp. 1451-1456, 2014.

Book published

J. Suresh and A. Srinivasan wrote a Book titled, "Cloud Computing: A Practical Approach for Learning and Implementation" which has been published by Pearson Education India. Book Details: ISBN: 9788131776513, Price: Rs. 375.00, Pages:440, Imprint: Pearson Education.

Patents Filed

1. A Patent has been filed with application no: 01322/CHE/2014, filed on the date: 13/03/2014, by patentees: Suresh Jaganathan, KarthikaVeeramani, titled: "A System and Method for Face Recognition using Regularised Discriminant Analysis."
2. A Patent has been filed with application no: 01321/CHE/2014, filed on the date: 13/03/2014, by patentees: Suresh Jaganathan, Priya Stephen, titled: "A System and Method for Verifying Face/Objects using Linear Regression and Discriminant Methods"

Guest Lectures Delivered

1. Dr. D. VenkataVara Prasad delivered a lecture at the Anna University, sponsored by FDTP, on "Computer Architecture", organized by St.Joseph's College of Engineering, Chennai
2. V. Balasubramanian spoke on "Theory of Computer" at the University of Madras Academic Staff College NET course on 6.6.14 and 9.6.14.

Invited Reviews

Ms. ShomonaGracia Jacob, Assistant Professor was invited to review research articles on “Biological Data Mining”by two peer-reviewed Elsevier Journals, in the month of June.

- i. Computer Methods and Programs in Biomedicine (5-yr impact factor: 1.589): This paper suggested a new data pre-processing method for large-scale data mining.
- ii. Computers in Biology and Medicine (5-yr impact factor:1.359): This paper described a new scheme to detect vertebrae in CT scout images using classification algorithms.

Ms. Shomona GJ has also been given one year free online subscription to both the peer-reviewed journals for her timely reviews.

The logo for amazon.com, featuring the word "amazon.com" in a black sans-serif font with a curved orange arrow underneath the letters "a" and "z".

Amazon to invest 2 billion to counter flipkart

Amazon, the global leader in e-retail is to invest 2 billion dollars over the next two years in Indian operations as it bids to claim the numerouno position in the Indian market so far dominated by local players such as flipkart.



Ms. ShomonaGracia Jacob
(Assistant Professor - CSE)

We can do it together

Students may fall,
They may also fail
But that's not all
Teachers are there to set u sail...
Pain may be a part of holding the oar
But when hardwork and perseverance enter your ship
Then the highest heights will be the places you soar
If you just give a thought to the teacher's whip.
We want to let you have the best
Of course we use our hand to chide and chasten
Students you need to put in the rest...
Then the sky will be your limit but you must hasten!

Ms. ShomonaGracia Jacob
(Assistant Professor - CSE)

என்டீச்சர் (என் Teacher)

கண்டிப்பாக இருப்பார் - கல்லூரியின் உள்ளே

கனிவுடன்பேசுவார் - அதன்வெளியே !

மனதில்பட்டதை சொல்வார் - என்டீச்சர்

மனம்கோணாவிதத்திலே!

எளிமையாய் இருப்பார் - என்டீச்சர்

ஏழைமாணவர்க்கு உதவுவார் - என்டீச்சர்

எதிலும் நேர்மையாய் இருப்பார் - என்டீச்சர்

அதில் என் அளவும் சந்தேகமில்லை - எவருக்குமே !

பொறுமையுடன் சொல்லுவார் - என்டீச்சர் !

பொறுப்புடன் நடந்துகொள்ள ;

திறமையை மதிப்பவர் - என்டீச்சர் !

திட்டியே தீர்ப்பார்த்திருந்தாவிட்டால் ;

சிறப்பாகக் கற்பிப்பார் - என்டீச்சர் !

சீறிப்பாய்வார் - Single digit Mark எடுத்தால் !!

மகிழ்ச்சியுடன் இருப்பார் - என்டீச்சர்

நான்மனம்மாறி , உடல்வருத்திப்படித்தால்தானே !

-கி. வள்ளிதேவி

உதவிபேராசிரியை



Advance Happy Teachers Day



Teachers don't impact for a year, but for a lifetime.

MEC

AlgoRhythm contest 2014



RUNNERS UP

From left

The HOD of CSE dept.

Dr. ChitraBabu

Asst. Prof.

Mr. V. Balasubramanian

Team members:

Sudarshan. R

Siddharth. G

Naveen. H

Prize

Nokia Lumia 625 phone
(each)

It all started in the beginning of fourth semester. Design and analysis of algorithms was a part of our syllabus. Our faculty was Mr. V.Balasubramanian. Subsequently, the department took special measures to spread awareness regarding Massively Empowered Classroom(MEC), a community initiative taken by Microsoft Research Labs, India.

This program offered free access to online course material related to the Algorithms course, prepared by a few eminent people in that area.

We found the course very useful material. Towards the end of the semester, MEC announced the AlgoRhythm contest, which was open to student teams all over India. So, the three of us decided to take up the challenge.

The contest gave us a scenario and asked us to submit a code written in C to solve the problem correctly. They had also provided a basic framework program to give a level playing field that would take care of consolidating and displaying the answer. So the only challenge left to us was to develop the logic and make it as efficient as possible. The scenario given in the contest involved a stock market environment. Here sales were carried out by exchanging stocks in different numbers. The input consisted of various sets of numbers, each corresponding to a 'time unit'. The time unit fixed a new value for a given share. The required solution was the identification of whether a time unit was profitable or not.

We submitted our solutions, a few days before the deadline. We were a little apprehensive. After an extended wait came a mail. It informed us that our team has been declared runners up and that we would be given Windows Phones. We were on cloud nine. It was a satisfying experience. We owe our teachers a lot for equipping us with the skills required to achieve this.

H. Naveen, Sudarshan. R, Siddharth. G

III year CSE-B

Getting Beaky

with Android

I'm pretty much excited to tell you about my recently published Game on the Google play store called "Beaky". This game was developed in 7 days and coded in Java.

The difficult part is to render support to different screen resolutions. Android phones come with different screen resolutions unlike iPhone (retina & non-retina). There 6135+ different screen resolutions available!

This 'Beaky' game is casual yet tough like the massive hit "Flappy Bird". The players can unlock Achievements and get "Beaky Badges" for each achievement, "Beaky Emperor!" badge being the highest of them all. Players can submit their high score to the "Beaky Board" and see who tops the Beaky Board all over the world.

Finally after days of designing-coding-debugging-testing, I was ready with the final build with all the certificates and licensing. Publishing the game on the Google play store gives you an amazing feeling! I intend to port my game to Windows phone and iPhone in the coming days. I am currently publishing my apps under my own Company/Brand name ExtendsApk {}.

I learnt to code from different sites. Passion and the urge to create and innovate is exactly what drive me till date.

Also check out the other apps of mine.

My website www.extendsapk.in

My Facebook page www.facebook.com/extendsapk

My other apps

<https://play.google.com/store/search?q=pub%3A%20Chaarans%20Sen>

Contact me @ developer@extendsapk.in



Chaarans.S

III year CSE – A



S.Chaaran (3rd yr CSE) participated in "Mobile Zombes (Mobile App Ezpo)" held at Jeppiaar Engineering College on 24/07/2014 and won the First Prize.

It was a cash award worth Rs. 3000 and a gift voucher from Joy



Apple in Talks to Launch Its Mobile Wallet Service This Year

Apple has reportedly entered into discussions with credit card institutions with its plans to introduce a new service by this fall that will enable Apple users to pay for products and goods in retail shops via their iPhone device. To avail this feature, the users would have to give their banking information which will be uploaded in the "wallet". The report also adds that the user's banking information on the iPhone will be saved in a 'secured element', a piece of hardware onboard the device, and the service would run without any network carrier involvement.

Summer Student Program on Theoretical Computer Science – 2014

The Institute of Mathematical Sciences (IMSc), Tharamani, organized a summer program during the period June 9th to July 4th on the topic "Theoretical Computer Science". IMSc is an autonomous institution that was started in 1958 by Prof.AlladiRadhakirshnan which is affiliated by the "HomiBhabha Atomic Research Centre, Mumbai".This program was conducted by the professors and various Ph.D students under the guidance of Prof.Venkatesh Raman and Prof.Ramanujam. The main aim of the program was to give a clearer picture on the topics where most of the researches are being performed. Students and research scholars from various parts of the country were part of the program. The entire program was divided into three sessions. The first two sessions during the day comprised of lectures on various topics. The third session,"Tutorials", was one in which problems were discussed. The problems that were discussed were intriguing and it helped a lot in designing new optimized algorithms for the same. The following lectures were given a broad view with various algorithms and real-time examples.

1. Belief Networks
2. Linear Programming
3. Combinatorial Geometry
4. Linear Algebra
5. Perfect Matching in Graphs
6. Distributed Algorithms and Games
7. Convex Hulls
8. Fault Tolerance
9. Kernalization
10. Branching Algorithms

Another area that was focused upon during the program was the encouragement for taking up research projects and work with the scholars of the institute. General, weallcoulddiscoveranotherwellspringoflearninganddiverseapproaches toexecutethem.

INTERNSHIP

at

L&T Infotech

I worked as a Summer Intern for L&T Infotech in the Business Intelligence/ Data Warehousing department from 6/6/2014 to 2/7/2014.

I was tasked with learning the concepts of Data Warehousing and Business Intelligence such as ETL, OLAP, OLTP etc. and creating high performance Reports, Dashboards and Widgets using SAP's Business Objects 4.1 and SAP Dashboards. As part of my responsibilities, I had to interact with the company's clients and prepare user-friendly, dynamic Reports according to their Business Needs. I also had to imbue the Report with some complex functions such as Drill-Down, On-the-go Filtering and User-Prompting.

I had to juxtapose Reports using Dashboards and provide the client with those Dashboards as well. I had to create Reports from scratch, starting from establishing a connection to the Database, then moving on to Building the Data Foundation Layer and Business Intelligence Layer, and finally using the Universe thus produced as the source of my Reports. In all, it was an extremely informative experience and I thoroughly enjoyed it.

BezzamVarun

III yr CSE – 'A'



Bezzam Varun

III Year CSE-A

Our Experience at the Summer Research Fellowship Programme at IISc, Bangalore

This summer has been a very eventful couple of months for us, in terms of how much we have learnt. Our guide, Professor (Emeritus) C E VeniMadhavan, of the department of Computer Science and Automation at IISc, assigned us with the interesting challenge of analyzing computational humour, and to develop a system that can automatically generate jokes.

In terms of analyzing humour computationally, we were required to study one liners and we were asked to point out the exact cause for their humorous nature, which is a work in progress. So far, we have studied extensively on how much has been achieved in the past, and they include the following:

1. RadaMihalcea's work over the years -- This focused on automatic recognition of humour in one-liners, by using Machine Learning techniques to recognize humour. Her work also involved performing experiments on different types of data differentiated by quality and quantity, that included humour-specific stylistic features- alliteration and antonyms.
2. J.Taylor and Mazlack's work -- This focused on humour intent and content, which based humorous content on incongruity theory. This also analyzed different jokes- Wordplay jokes, jokes that depend on context, and syntactically ambiguous jokes.

Therefore, a partial solution has been arrived at, which comprises of Natural Language Understanding. This requires the usage of ontologies.

A popular ontology, Cyc is being studied to come up with a solution. Ontology is a source of world knowledge that uses logic to obtain results

Using the ontology would simplify the understanding of the joke and hence, detecting the incongruity

As for the generation of computationally humorous jokes, we have proposed a model by which a standardized template of three types of jokes can be generated –

1. “What is the difference between...” jokes. For eg.
“What is the difference between a hurt lion and a heavy downpour?”
Ans. One is roaring with pain, and the other is pouring with rain”
2. “What do you get when...” jokes. For example,
“What do you get when you cross a centipede with a parrot?”
Ans. A walkie-talkie.”
3. “What happens when...” jokes. For example,
“What happens when a tree is unwell?”
Ans. It becomes a sick-amore.”

This requires us to either feed in the questions and perform some kind of situation analysis and arrive at an answer that is funny, or we can reverse engineer the joke from a funny phrase. Computationally, the second is preferred over the first. It is easy to amass a corpus of funny phrases. What remains is to generate a question that makes sense syntactically and semantically. After all, what is a joke, but a well formed sentence?

This is the problem that persists in this area of generating humorous content. We need to perform a kind of template matching to make sure that both the parts of the joke’s question make sense, and they form a whole in some observable universe.

Another challenge is to make sure that we incorporate easy-to-understand words, in order to make sense to the most common people. This can be done by using two parts of the sentence, that can augur well with the general tune of the joke, also consisting of words that are used relatively more frequently. Therefore, the challenge in generating humorous content lies in selecting two semantically proper phrases that gel well together, from which the joke’s punch line can be derived.

In conclusion, computational humour is a less-researched field, marked by some very interesting findings, and involving a lot of useful and funny programs that can be used and built.

Sanjana.M

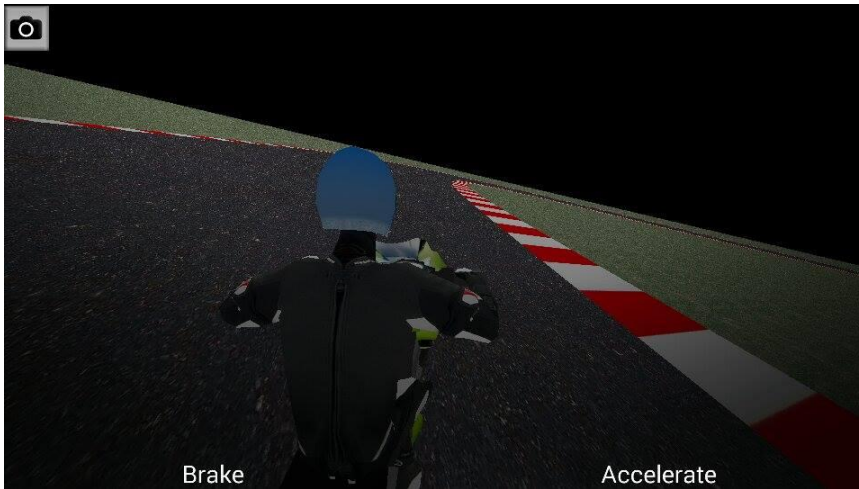
Aparna Anand

IV yr - CSE

INTERNAL FUNDED PROJECT

It all started one fine day when we were discussing about the possible venues to go for our class excursion. We had this wild idea that our class could go on a vacation overseas (inspired to an extent by the American model of going on a Europe trip before they graduate). However, the idea was shot down by the department and more importantly, it was beyond the budget of most of our classmates. We refused to be bogged down by this temporary setback and began thinking on how to provide this opportunity to experience a foreign trip to people without them being physically present. That is when we came up with the idea of using virtual reality to simulate an environment. We decided to approach our department for internal funding for this project and presented our idea. We were on cloud nine when we were informed that our project was selected for receiving internal funding from our college. With the consistent help of our guide , Mrs Angel Deborah , we were able to implement our ideas . We succeeded in creating a Head Mount Display which would get input from sensors in Android phones.





The input was processed locally on the Android device and the generated visual output was streamed to the Head Mount Display which would project it to the user's eyes giving him/her a perception of being in a virtual environment. This system is capable of generating a wide variety of virtual environments and is not restricted to any particular environments. The only restriction here is one's imagination – the landscape of Mars, a simulation of how some construction activity would alter a landscape and many more. The scope of possible applications for this system is wide and includes domains as diverse as military applications, medicine and the gaming industry. As of now, we have created a virtual simulation of our department building, a racing game and table tennis game, compatible with our Head Mount Display.

D.Thiageshwaran
S.Vignesh
IV Yr CSE-B



D V Vignesh of the recently graduated B.E batch has received an offer through an off campus interview process at eBay PayPal at OMR, Chennai at a CTC of 14,86,000 LPA.

INTERNSHIP :

Institute of Mathematical Sciences.

Kalaimathi.R (IV year CSE-A)
Aishwarya.S (IV year CSE-A)
Kaushik.P (IV year CSE-A)
MeghaUmesha (IV year CSE-A)
AkshayaBhat (IV year CSE-A)
ManojNatha (IV year CSE-A)
Venkatraghavan (IV year CSE-B)
Varsha (IV year CSE-B)
Shanmugaraj(IV year CSE-B)
Chrislin(IV year CSE-A)

D4Design Creative Institute.

Abishek.S (IV year CSE-A)

Chennai Mathematical Institute

Ashrayaravikumar. (IV year CSE-A)

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Ayshwarya.S (IV year CSE-A)
Shanthini.V (IV year CSE-B)
Sinduja.P (IV year CSE-B)

Indian Institute Of Science,Banglore.

AparnaAnand (IV year CSE-A)
Sanjana.M (IV year CSE-B)

Tata Consultancy Services

NeelaNiranjani V (IV year CSE-B)

Ecole de Technologiesuperieure-Montreal

RamyaSriraman (IV year CSE-B)

INTERNSHIP :

Bhoomi Organisation

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Encore Software Services

Amrutha Ravi (III year CSE-A)

Mayanka.P(III year CSE-A)

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AshwinKumar.R(III year CSE-A)

L&T Infotech -

BezzamVarun(III year CSE-A)

Apollo Tyres -

Gaurav Pandey(III year CSE-A)

Frost and Sullivan -

Jayashree.S (III year CSE-A)

Locoworks, Indian Railways -

Keerthana.P (III year CSE-A)

HCL Technologies

Mukund Ram(III year CSE-A)

Titan Industries Ltd

MohanaPriya.K (III year CSE-A)

MohanaPriya.S (III year CSE-A)

Shriram Value Services

AshwinAlagappan (III year CSE-A)

SAtvatInfosol

Naveen(III year CSE-B)

T InfomonkTecnologies

Naveen Nivetha(III year CSE-B)

MLS Bharath Petroleum

Vijayalakshmi (III year CSE-B)

CDAC

Sanjana (III year CSE-B)



S.Prasanthi



Anandh.V



P.Vignesh



P.Preethika

TATA ELXSI INTERNSHIP CUM PROJECT

The top 20 students from final year CSE department were shortlisted to attend an interview conducted by TATA ELXSI, Chennai. The questions tested our knowledge in topics such as Networks, Algorithms, Software development etc. The four of us S.Prasanthi, P.Preethika, P.Vignesh, Anandh.V selected have the golden opportunity of doing our final year project under the guidance of TATA ELXSI. We are fortunate to have 2 guides – Ms. Angel Deborah from CSE department and Mr. Ramesh Ramanadan from TATA ELXSI.

On 21/7/14, the four of us and Angel Ma'am visited the TATA ELXSI campus. We were briefed on the scope of the project. The project focuses on selecting optimal subset of test cases when performing regression testing. It is an open-ended problem.

Across all the phases of software development, software testing and maintenance requires a lot of time and workforce. It plays a major role in software development process. Regression testing has to be done whenever any change is made so that the change doesnot affect the other modules.In a large project,with millions of LOC and large number of people working across the globe, it becomes difficult to keep track of the changes made to the code and before committing the code into a common repository it is necessary for every developer to run every test case which would easily consume a minimum of one week. Hence there isa need to identify a minimal subset of test cases that satisfies all the conditions of the software development and to optimize the testing process.So our main aim is to develop an intelligent set of test cases that would represent the whole set.

We are supposed to meet our guide at TATA ELXSI twice everymonth and read around 20 IEEE papers to get a clear understanding of the problem definition.

By the end of this semester we are expected to arrive at a concrete problem definition and build a prototype of the Test Infrastructure so as to ease our work during the end semester.

THE INDUSTRIAL VISIT TO POLARIS

The recent Industrial Visit to 'Polaris Financial Technology, Chennai,' by 3rd year B.E, Computer Science and Engineering students, on 17th July, 2014, proved to be more than just memorable. Unlike the other Industrial Visits, we were exposed to an amalgamation of Technical sessions and Laughter therapy sessions, unfolding at various stages of the IV.

First, we were guided by Mr.Ramesh and Mr.Shankar, Senior Associates of the company, to the Financial Design Centre (FDC), the only one in world. It is called 8012, representing the longitudinal and latitudinal coordinates of India. At the entrance there was an amazing artwork of the world which was made only by using coins of Indian currency. As we moved on, the rich ambiance of the Financial Design Centre showcased the primary motives of 'Polaris', called the 3 eyes for successful financial operation. They are : Business, Technology, Desirability. Checking for the viability of a business, looking for technological feasibility and checking if the operations are absolutely necessary are what the motives imply. We were enlightened about companies such as Apple, Honda and Ikea that have already mastered these motives. 'The 7 Dimensions of Additive architecture'-denoted by COPARIS : Customer Experience, Operational Efficiency, Performance, Analytics, Risk Management ,Integration and Security ,was mind-boggling to all of us. It was followed by an extraordinary video, played in a theatre with Digital logistics, explaining each dimension.

Following this session, we were enlightened about the primary focus of Polaris : providing services for Retail Banking, Corporate Banking and Capital Market management. The modern-day connection between technology and banking enterprises was an element of surprise to all of us. Next, we were reminded about the positive forces required to succeed in life. They are : Perspective, Skill, Expertise and Alignment. After this session, we were provided with snacks.



As students, we never expect the unexpected. But what was awaiting us in Polaris was an unexpected 'Laughter Therapy Session', handled by Mr.Sathya. Up until then, laughing only seemed like an emotional reflex to a joke. But we laughed hard for no reason, patted ourselves for what we have already achieved, forgetting everything else in the world. He triggered the part of the brain that controls happiness and brought out the natural-self of all of us. Even the faculties, Ms.Bharathi and Ms.Thenmozhi, who accompanied us for the IV, forgot all the pressures of their lives and enjoyed the session thoroughly.

After 2 hours of 'Laughter Therapy', we were exposed to the concept of 'Design Thinking'. Given any problem, an optimal solution can be easily obtained by applying this concept. First step involves 'Identifying' or understanding the given problem from all possible perspectives. Next, we 'Define' the problem statement, which is followed by ideating the problem by thinking of different ideas to solve the problem, called as 'Divergence'. Using the constraints of the problem, by 'Convergence', we eliminate the solutions which are not feasible. Then we define 'Prototypes' for the problem and check if the solution method can be satisfied by the given entities. Finally, we 'Test' the solution to the problem to ensure that it works successfully.

Before drawing the IV to a close, Mr.Sathya recorded videos of students giving their feedbacks about the Industrial Visit and their overall experience at 'Polaris'. After that, we thanked the associates who guided us and bid farewell.

As the IV brought out the small bits of potential in us, this is exactly the kind of IV we, as students, are looking forward to. We hope to visit the organization again.

I-CELL TALK ON SUFFIX TREES

(22-07-2014)

We attended the summer student program on Theoretical Computational Sciences. We had lectures on game theory, string matching algorithm, kernelization, convex hulls and some tutorial classes. It was interesting to know about some of the topics taught in IMSC and how they are useful in various applications.

I-Cell gave us the opportunity to share our knowledge with our juniors and brief them about Suffix Trees. It is our first experience in I-Cell talk. We started with the introduction of string matching algorithms and tries. We further gave examples and showed the construction of suffix trees and arrays. It was an exciting experience altogether and we thank Sheerazuddin sir and the department for giving the platform for us to share what we learnt. It was more of an interacting session where we could clear some questions asked and we could get more insight into the topic taken. We would look forward to attend more I-Cell talk .

- KalaimathiandChrislin

IV year CSE-A



I-Cell talk

15-7-2014

The first session of I-Cell talk for the year 2014-2015 was held on 15-7-2014 by S.Venkatraghavan, final year, CSE on the topic "String matching algorithms" which forms the basis for many important applications like DNA Sequencing. The talk was aimed at exposing various string matching algorithms and their efficiencies. Algorithms like Naive algorithm, Karp-Rabin algorithm and KMP algorithm were discussed. The talk started with the naïve algorithm which was the least efficient and ended at the Boyer-Moore algorithm being the most efficient.

Many third year and fourth year students participated in the talk. It was held for 40 minutes and involved an interactive session on discussing the algorithms followed by a question and answer session.

Venkatraghavan

IV year CSE



Venkatraghavan

IV year CSE



Apple Buys Beats Electronics For \$3 Billion

Apple announced this week they will pay \$3 billion to buy music brand Beats Electronics, the maker of the popular Beats by Dre premium headphones, bringing co-founders Dr. Dre and Jimmy Iovine onto their executive team. What do you think?

Accenture Career Day

The Accenture career day was held on 15-7-2014 at the main auditorium. It was conducted by officials from Accenture India. Initially, the students were provided insight into the Accenture corporation and its various domains like Technological Services, Financialservices etc. Videos were presented to showcase the environment and workinggoals of the software giant. The recruitment process was briefed upon andstudents were interactive.

It ended with a couple of activities like quiz, oral presentations etc. Participants of the activities were awarded Accenture goodies.

A lucky draw was conducted at the end and the firstlucky student won a gift coupon from Croma and the second lucky student wona full set of Accenture goodies. They also briefed about the AccentureInnovation Jockey powered by Yahoo, which is a competition to provideinnovative ideas.

This year's theme is Internet of Things and Digital Governance.

Venkatraghavan S and Sivaraman L

My First International Journey

I am Narendran, a Masters student at University of California, San Diego. Prior to this, I was a software engineer at eBay for a year. Before that, I had the most wonderful phase of my life as an undergraduate computer science student at SSN College of Engineering, Chennai.

Let me take this opportunity to shed light on my experiences as a student at University of California(UC), San Diego.

I landed in Los Angeles, USA on Sept. 4th, 2013. It was my first international journey and I was excited to realize that I was right then at the USA. I got a place to stay at Costa Verde Apartments at La Jolla, a beautiful place overlooking the west coast and tipping the Mexico - United States border. Officially, my graduate classes commenced on Sept. 23rd, 2013. UC San Diego follows a quarter system wherein international students (like me) have to take courses/seminars which collectively account for atleast 12 credits each quarter. Since each course accounts for 4 credits, international students can either opt for 3 courses each quarter or 2 courses and a few research seminars that usually account for 2 or 1 credit each. In my case, I picked two courses during the first quarter - Algorithms and Artificial Intelligence. I was also the Teaching Assistant for the undergraduate computer networks course. The courses are well-structured in terms of focus on theory, labs, team projects and thought-provoking assignments.

More enthralling than the experiences as a student were the teaching experiences. It was a totally new and challenging experience for me to be a Teaching Assistant. Since, apart from knowing the subject, it was important to convey it in an easily understandable fashion to the students. I learnt a lot of nuances in teaching while moulding myself to become a better instructor. They include reducing my pace while explaining concepts so that I choose the best words, using better examples, drawing more suitable analogies and making good use of the blackboard.



Narendran.T

B.E CSE 2008-12

TECH NEWS



Nokia X series discontinued

Nokia X phones were devised to be a gateway to the company's pricier Lumia phones. The operating system that runs the phones was to blend the core technology found in Google's Android system with services and designs found in Microsoft's own Windows Phone system. Nokia looked to Android as a way to sell phones with locally tailored apps unavailable on Windows. But with non-impressive sales and with the effect Microsoft having completed its deal to buy Nokia's phone business in April, the Nokia X series is gone less than three months later.

I spend a good amount of time in the famous Geisel library skimming journals and technology magazines. I generally borrow more books from the library than I could possibly read. My most favorite weekend-killers would be attending hackathons. I have won four hackathons till now including a major league hackathon at Los Angeles. People from all corners of the planet come down to the hackathons to exhibit their ideas and build prototypes. It is a great experience to get along with all those students given their varied backgrounds and skillsets.

I am currently working as a summer intern at Nimble Storage, a startup focusing on storage solutions for data center environments. At Nimble Storage, as a summer intern, I am working on the end-to-end design and development of a single-sign on authentication system that will enable customers to invoke operations on the storage arrays directly from the management & analytics platform (called Infosight). The project is interesting and challenging since I had not been exposed to systems security projects before. From next quarter, that is Fall 2014, I will be involved in research at the CAIDA labs at San Diego Supercomputer Center where I will be studying the current internet infrastructure and designing and developing features for the next-gen content centric networking model (called Named Data Networking). I have one more year at UC San Diego, and I have thoroughly enjoyed the journey so far.

Narendran.T

Founder of Drona

B.E CSE 2008-12

SCALING NEW HEIGHTS

Having qualified the GATE,I, R. Pradeep, Ph.D Scholar, IIT Kharagpur , entered the portals of SSN to glow with immense potential. This temple of knowledge was a source of help, guidance and revelation to a glorious future.

I had previously served Computer Sciences Corporation for a couple of years and witnessed umpteen opportunities and fearless freedom of thought long with a high pay and trustworthy peers. But the volatility of the field made me leave with tears.

SSN welcomed me with a scholarship from the institution which I enjoyed for two years of study without any limitations. The lawns of SSN gave me impetus, freedom and ambience of thought. The scenic beauty, bounty of landscape and greenery taught me patience and perseverance that led to the shaping up of my dreams that I sought to cherish with gratitude.

The Department of Computer Science housed teachers renowned for academics, sound in knowledge, integrity, motivation and inspiration. The guidance and motivation received in the department unearthed my talents. The Library facilities enriched me and nourished my thirst for knowledge. All this were the building blocks that eventually led to my entry into IIT Kharagpur.

Thousands of candidates applied, 419 were screened to appear for a written test that eliminated many. Finally 19 were selected in the interview that followed and one among the lucky few was me gaining entry into IIT Kharagpur for Ph.D. But for the sound instruction, inspiration and motivation that I received from my teachers in the department of CSE, SSN I could not have entered my dream destination. I must record my gratitude to my department and college.



SSN Bus App

A student of our department, Seshathiri R has come up with an Android app which would be of use to those who travel by SSN buses. The SSN Bus app as it is called, has a database of all the bus routes and their stops and arrival times which can be searched both by route number and location. It is largely device-independent as it does not make use of hardware which is exclusive to any manufacturer. The app is downloadable for free at <https://play.google.com/store/apps/details?id=sesha.codem.ssnbus>

TECH NEWS



Google Offers Free Play Music Subscription on Chromecast's 1st Birthday

Google on Thursday, on the eve of Chromecast's first birthday, announced a free Google Play Music subscription for Chromecast users.

In a blog post, Google said, "To celebrate Chromecast's birthday, Google Play Music is offering All Access subscriptions free for 90 days to anyone with a Chromecast (and who isn't already an All Access subscriber). This offer will be available in the US starting July 24, through September 30."



I salute with reverence the atmosphere in SSN. The interactive approach in the department of CSE and the freedom enjoyed by students for independent thinking would definitely mould everyone to attain great heights.

I thank my parents for their support and cooperation. I thank Mr. Shahul Hammed Sir for his ideas related to Green Computing which gave us hope on doing projects. I thank Dr. ChitraBabu Mam and B. Prabavathy Mam for their support and guidance in my final year project that instilled confidence in me to handle projects. I am indebted to my guru, Dr. Venkata Vara Prasad Sir, whose indomitable will and untiring energy have always been a source of inspiration and encouragement to me.

R. Pradeep

ME CSE 2012-14

Want to be young always?

Just read on...

In this fast and racing world, higher education is something of most value and importance. Like many others', it was my dream too to come to the United States for my masters. I was targeting the Silicon Valley to pursue my higher studies and got admitted into the University of Southern California, Los Angeles. My bachelors in engineering and the knowledge I gained helped in making this journey smooth.

I chose to do masters in general computer science, but my interest always lied in operating systems, security and networking. Getting to build an operating system from scratch in Professor Michael Crowley's operating systems class was as much interesting as how tedious and challenging it was. Developing a "Network File system" in the Computer Communications class and getting to explore "Cloud security" technologies in the Security Systems class helped me realize where my true passion lied in the vast field of Computer science.

One important thing I learnt was, not to let my self-confidence and thoughts sway listening to the discouraging minds. When I started to believe in what I did, the outcomes turned out great. Today, I work as a Software engineer in the Security and Fabric Infrastructure team of Brocade Communication Systems, a dominant vendor in Fibre Channel Storage Area Network.

"Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young." – Henry Ford. If you have the interest and opportunity, don't miss it!!!



Soundarya Ravi

**Software Engineer,
Brocade Communication
Systems, Inc.
San Jose, California.**

(SSNCE - CSE Class of 2010)

PARADIGM

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Parents Speak...

The staff of the CSE department were delighted to hear the comments of the parents - a rewarding experience indeed for any teacher/mentor/guide. Parents often come to visit the staff of the CSE department and express their views about the academic system at SSN and the CSE dept in particular.

One such parent was quoted as saying, 'The faculty have placed immense faith in our son and have given him opportunities that we could not even think he could handle.' This one small step they said motivated their son to strive, to seek and to find the path to achieve his goals. Parents say they never want the teachers to help their wards... They just want them to extract the latent talents to raise their students to heights where they would never need to seek help but be in a position to help out others. Parents are glad that the staff at CSE are just at it.

In the words of Robert Frost "There are two kinds of teachers: the kind that fill you with so much quail shot that you can't move, and the kind that just gives you a little prod behind and you jump to the skies."

**Association of
Computer
Engineers (ACE)
Inaugural
Function
on
06-08-2014**

**PARADIGM 2k14
on
September 5**

Upcoming Events

CSI Chapter

"NS3 network simulator" workshop on 19th Sep 2014.

ACM Student Chapter

- 1) C++ Programming Workshop
- 2) Code County 3.0
- 3) Distinguished Speaker Programme
- 4) Networking Boot Camp
- 5) Android ROM Development Hands-on Workshop
- 6) Mock Interview
- 7) Algo Wars
- 8) Online Events

I-Cell

SI.NO	NAME	TOPIC	DATE
1	Varsha P	Kernelization	5 August 2014
2	Sivaraman L	Iterative Compression	12 August 2014
3	AkshayaBhat	Distributed Computing-1	19 August 2014
4	Kaushik P	Distributed Computing-2	26 August 2014
5	Aishwarya S & MeghaUmesha	Convex Hulls	2 September 2014
6	RamyaSriraman	Hybrid Algorithms in Computer Graphics	9 September 2014
7	N Manoj Kumar	Disconnectedness of a Graph Using Eigen values	16 September 2014

Other Events:

Android Workshop on 13th and 14th August' 2014.

THE TEAM

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