



Accredited by



Saranathan College of Engineering

(Affiliated to Anna University Chennai)



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
E MAGAZINE 6.0
COMSCEWAVE 2018

About us

The Department of Computer Science and Engineering was established in the year 1998 with the intake of 40 students initially. It was increased to 60 in 2000 and 120 in the year 2011. This program is affiliated to Anna University, Chennai. This immense growth is due to the efficient working of staff members and students. The department has the pride in showcasing its 100% of admission. With relentless efforts, the department has accomplished Accreditations by the **Institution of Engineers (IEI)** in the year 2015 and **National Board of Accreditation (NBA)** in the year 2018.

The department library is strategically placed to access to all the students. It spreads over an area of 100 sq. ft. It acts as a storehouse of knowledge with over 604 books including books with various domains in Computer Science and Engineering. Reference books are added to the Library every year. The department with its cohesive team of faculty members offers a sound program at the UG level. It shapes the students to keep up with the growing demands and changing trends of the software industry and research laboratories.

Apart from curriculum, the active participation of students in inter and intra college technical contests are being encouraged by the department to develop their interpersonal skills and the students have won many Best Project awards, Mobile App, Web Applications and Coder awards. Students are also actively participating in Infosys Foundation Programs(FP), TCS campus commune, TATA crucible project competition, and CSI Project Contests, etc.

VISION OF THE INSTITUTION

Impart an inclusive engineering education that beyond being a facilitator for a career and rudimentary skills, equips the students to offer ethically & environmentally conscious solutions to societal issues.

MISSION OF THE INSTITUTION

Develop the Institution into a Model Self Financing College of Engineering and Technology. Deliver Professional Training to our students with state-of-the art Laboratories and convert them into Technocrats of international repute.

1. Create a nurturing, holistic environment of engineering education to facilitate every student realize their full potential.
2. Strive to make the students strong in basic concepts armed with appropriate skills to enhance one's ability to apply the knowledge and provide solutions to real time issues.
3. Maintain an ambience that facilitates the students to strengthen their ethical value systems.
4. Actively promote R&D and institute-industry interaction.

VISION OF THE DEPARTMENT

To evolve as a centre of academic excellence and advanced research in Computer Science and Engineering discipline.

MISSION OF THE DEPARTMENT

1. To inculcate in students a profound understanding of fundamentals related to discipline.
2. To inculcate skills, attitudes and their applications in solving real world problems with an inclination towards societal issues and research.

3. To promote research in the emerging areas of computer science and technology

PROGRAMME EDUCATIONAL OBJECTIVE

PEO1: Acquire strong foundation in the mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyse engineering problems.

PEO2: Develop the ability to analyse the requirements of the software, understand the technical specifications, design and provide novel engineering solutions and efficient software/hardware designs.

PEO3: Have exposure to emerging cutting edge technologies, adequate training & opportunities to work as teams on multidisciplinary projects with effective communication skills and leadership qualities.

PEO4: Have awareness on the life-long learning and prepare them for research development and consultancy.

PEO5: Have a successful career and work with values & social concern bridging the digital divide and meet the requirements of Indian and multinational companies

From the desk of the Principal



It is our effort to make SCE of Computer Science a top educational institution that can create IT professionals, who blend effectively, technological skills with management perspectives and to impart an inherent discipline that will help them face challenges in the future. Consequently the true education should deepen our insight, widen our horizon and create a meaningful outlook. Equally the students are fortunate enough to have born in a free nation, with all the facilities to shape their career in such a way, that they should be part of a good and healthy society with progressive attitude towards divinity.

Dr. D.Valavan
Principal

From the desk of HoD



It gives me immense pleasure to lead the department of CSE. The department has well qualified and eminent faculty. The main objective of department is to develop the students both personally and professionally to achieve successful career in Industry, Research and Academics. Consequently, great advances have taken place in the field of computer science and engineering, bringing together the understanding of the scientific and technological foundations of computing, the concepts of software and hardware as well as those of communication technologies. The Department of Computer Science and Engineering endeavors to contribute to these advances through teaching and research in this field. The E magazine attempts to present the Department and its activities for general information to all concerned.

Dr. S.A.Sahaaya Arul Mary
HoD/CSE

Editor's Message

It gives us a great contentment to bring it to you the department magazine of CSE. This magazine is a platform to exhibit the innovative ideas of teachers and students. **COMSCEWAVE** presents the achievements of students and the contribution of staffs. We would like to extend our heartfelt gratitude to all those who have contributed to make this a success. we are thankful to all the authors who have sent their articles. We truly hope that the following pages will keep you attached to this magazine.

K.Mohanappriya AP/CSE

INDUSTRY INTERACTION



Oracle

Academy Courses

Courses	No.of Students Certified
Database Programming	115
Java Programming	35

Microsoft Technology Associate(MTA) Courses

Courses	No.of Students Certified
Database Fundamentals	10
Python	25

Infosys Campus Connect Program

Courses	No.of Students Certified
Foundation Program 4.1	CSE – 93 Mech and ICE – 35 & 23

Totally 3 Batches Enrolled

QIC – Spoken Tutorial Courses

Courses	No.of Students Certified
C Programming	35
Python	25

Infosys Soft Skills Program

Courses	No.of Students Certified
Infosys Soft skills Training Programs	620 (12 Batches Enrolled)

Departments Events



SEMINARS FROM INDUSTRIAL EXPERTS

NAME OF THE TOPIC	RESOURCE PERSONS	CONDUCTED DATE
Seminar on 'Way to Zoho for III & IV Year Students	Mr.M.Venkateshwaran, Member of Technical Staff at Zoho Corporation	27 Jul 2018
A Technical Seminar on Applications of Machine Learning and Basics of Statistics	Ms. Gajalakshmi, Consultant, Data and Analytics, Infosys Ltd.	05 Oct 2018



Guest Lecture

Final Year students has participated in one day Guest Lecture on “**REAL TIME APPLICATIONS OF OPERATIONS RESEARCH**” by Dr. P. Mariappan, Associate Professor, Department of Mathematics, Bishop Heber College (Autonomous), Tiruchirappalli on 7th September 2018

Technical Events organized

S.No	Event Name	Guest / Resource Person	Organized by	Date
1	Inauguration of Dot Code Community (DCC)			19 Sep 2018
2	Inauguration of Computer Society of India (CSI) - Student Chapter followed by Technical QUIZ Program			30 Aug 2018
3	Inauguration of Celcom Solutions Global Centre of Excellence			31 Jul 2018
4	Inauguration of Salesforce Centre of Excellence			27 Jul 2018
5	A Five Day FDP on 'Salesforce Essentials for Business Specialist' in association with ICTACT		Dept. of CSE	23-27 Jul 2018
6	HackwithInfy Contest in association with Infosys			9 Jul 2018
7	Inauguration of DELL EMC ² Centre of Excellence for Data Science and BigData Analytics		Dept. of CSE	6 Jul 2018

Dot Code Community (DCC)

Inaugural ceremony of “**Dot Code Community (DCC)**” was held on **19th September 2018**. In his presidential address, our principal Dr. D. Valavan has motivated the students to make use of the DCC platform to enhance their programming skill and software development skill for industry readiness. Mr.

Vinay Sastha (IV Year CSE) ,briefed the DCC activities and benefits of being DCC Member and he also explained the procedure for becoming DCC Member and how to gain credits which will be useful in their placements.

Dr. S.A. Sahaaya Arul Mary, Head of the Department/CSE, introduced the DCC Representatives from each batch to the audience and our beloved principal gave them representative badges. As a part of DCC Activities, Mr. Rohit Raj (III Year CSE) has developed a website application for Seminar Hall Booking and he spoke about the application and what are the challenges faced during the software development and how the DCC helped out to bring the application successfully.



Official Launch of DCC Website and Logo

Computer Society of India (CSI) - Student Chapter

CSI Students' Chapter with 182 student members has been inaugurated on 30th August 2018. Mr. HR. Mohan, past chair, IEEE Computer Society, Madras Chapter has inaugurated the chapter and delivered a lecture on "Computers – Past and Future". He has also explained the importance of CSI for the students and gave guidance for making effective use of CSI. In the afternoon session he has conducted ICT Quiz for the CSI members. About 182 CSI student members have actively participated and answered questions enthusiastically. This quiz program has been a big ice breaking session for the CSI student

members. Mr. HR. Mohan has contributed Rs.3000/- from IEEE-CSI Chapter towards the prize amount for conducting quiz.



Mr. HR. Mohan, past chair, IEEE Computer Society, Madras Chapter inaugurates CSI and organizing Quiz program at CSI Inauguration

Center of Excellence

Inaugural ceremony of Celcom Solutions Global Centre of Excellence was held on on 31st July 2018. Celcom Personnels handed over the MoU signed to the Principal on this auspicious occasion



Celcom Personnels, Celcom Global Private Limited

Mr. Rajesh Rajagopalan Nambiar (Country Head), SalesForce & Mr. Shivakumar, CEO, ICT Academy handing the over the Salesforce Centre of Excellence MoU to the college secretary on the Inaugural Ceremony that was held on 27th July 2018



Inauguration of Centre of Excellence in SalesForce Mr. Rajesh Rajagopalan Nambiar (Country Head), SalesForce & Mr. Shivakumar, CEO, ICT Academy

Inaugural ceremony of “DELL EMC Centre of Excellence in Data Science and Big-Data Analytics” was held on 6th July 2018 .Mr. G. Saravanan, Deputy General Manager, Academic Alliances, ICT Academy was the chief-guest of the programme.



Saravanan (Regional Manager ICT Academy) - Data Science and Big Data Analytics

FDP Organized

A Five-Day Faculty Development Programmed on “Salesforce Essentials for Business Specialists” was organized by department of Computer Science and Engineering in partnership with Salesforce and ICT Academy between 23rd and 27th of July 2018 for internal and external faculty members. The prime objective of this FDP is to enable the teaching fraternity about the usefulness of Salesforce and also to make them be able to improve the self-learning culture by completing the modules online thereby scoring points and badges. Participants were also trained about how to complete super-badge modules for the sake of quickly getting more number of points and badges.



FDP on 'Salesforce Essentials for Business Specialist' in association with ICTACT on 23-27

Jul 2018



STUDENTS AWARDED IN SYMPOSIUMS/OTHER EVENTS



STUDENTS ACHIEVEMENTS

Outstanding Performance

HACKWITH INFYCONTEST

HackwithInfy Contest in association with Infosys was held on 9th July 2018. Totally 91 students participated in the round1 of this contest. Out of 91, 13 students have been shortlisted to participate in round-2 of the contest.

Details of the students who have been shortlisted for round-2 are as follows:
A.Vigneswar, R.Balaji, A.Dinesh, V.Sandhiya, .A.Afrin, I.Akshaya, K.N.PadmaPooja, S.Dhivya, K.ArunBalaji, R.K.ShaleeniPriya, R.SamitaSri,R.Saran, R.ShivShankar.

Out of these 13 students **K.ArunBalaji has got a placement offer at Infosys.**

TCS-CODEVITA

Final Year student K.ArunBalaji has been placed in Tata Consultancy Services by participating in TCS CodeVita contest.

Zoho Cliqtrix'19

R.Balaji got selected among 34 teams for the finals and presented his app in Zoho Office, Chennai on 29-Oct 2018 and got 2nd prize worth Rs.50, 000. He is also provided with internship offer at Zoho, with stipend of Rs.15, 000 per month, which may be converted into placement in future.



ACM 3rd NATIONAL LEVEL WOMEN HACKATHON – 2018

Our final year girls team's project has been selected under the topic "Sustainable Smart Society" for final round of "ACM 3rd National level Women Hackathon" organized by ACM-W (Title Sponsor), Ahmedabad University (Venue Sponsor), Oracle Academy (Golden Sponsor) and TCS (Silver Sponsor). For this Hackathon, 500 projects were submitted from all over the nation, out of which 25 were shortlisted for the second round, based on the innovation of the projects and technology used of which, we were one among them.



"Sustainable Smart Society" for final round of "ACM 3rd National level Women Hackathon" organized by ACM-W (Title Sponsor), Ahmedabad University (Venue Sponsor), Oracle Academy (Golden Sponsor) and TCS (Silver Sponsor).

HACKATHON COMPETITION

- Sivakumar A Radhakrishnan B Vinay satha R participated in the Hackathon competition held at sparkout Tech Solutions,Coimbatore on October 13th & 14th 2018

STUDENTS ACHIEVEMENTS IN CO-CURRICULAR ACTIVITIES

- **Final year student H.Aashika Parveen & Eniyamanjari** has been nominated as a student Ambassador of **IIM Bangalore & Casio Electronics Ltd.**
- Our students have actively participated in various technical events conducted at Velammal Institute of Technology on 18th August 2018 and they have won **OVERALL CHAMPIONSHIP**



Overall Championship in Technical Events

- R. Kesava Pradha of II – CSE and N. Immanuel Irwin of III – CSE has participated in Technical quiz event held at VELAMMAL INSTITUTE OF TECHNOLOGY , Chennai on 18th August 2018 and has won First prize
- GR. Thayalan of III - CSE has participated in Web Designing Contest event held at VELAMMAL INSTITUTE OF TECHNOLOGY , Chennai on 18th August 2018 and has won First prize with a cash award of Rs2000.

- S. Jeyashree , R. Harini , R. Janani , GR. Thayalan , R. Kesava pradha has received an **Internship offers from SURYA INFORMATICS** for the period September -2018 till November 2018.
- R.Balaji of Final Year CSE has participated in an Event “IdeaFest” held by Kerala Startup Mission. His project, “**Smart Vaccine Reminder**” is selected for their sponsorship under Kerala Mission Startup

Students Awards in Technical Events

S.NO	Student Name	Event Name	From date	To date	Conducted at (college name / location)	Prize
1	R.Balaji	App Building Contest - Cliqtrix	28/10/2018		Zoho Cliq	II Got Rs.50,000 Cash prize
2	M.Sheik Magdhoom	Link it	19/9/2018	20/9/2018	Coimbatore Institute of Technology	II
3	J.Samsson	Link it	19/9/2018	20/9/2018	Coimbatore Institute of Technology	II
4	R.Abinash	,The Loop	19/9/2018	20/9/2018	Coimbatore Institute of Technology	I,II
5		Crack In				I,II
6	K.Muruganandam	,The Loop	19/9/2018	20/9/2018	Coimbatore Institute of Technology	II
7		Crack In				II
8	S.Sudharsan	Code Cracker	20/9/2018	20/9/2018	K.Ramakrishna College of Technology	I
9	S.Vigneshraj	Code Cracker	20/9/2018	20/9/2018	K.Ramakrishna College of Technology	I
10	S.Sudharsan	Web 2.0	18/8/2018	18/8/2018	Kongunadu College of Engineering	II
11	S.Bhagya Lakshmi	Paper Presentation	7/9/2018	7/9/2018	TRANSCEND-2K18Dhanalakshmi Srinivasan Engineering College,Perambalur	I
12		Adzap				I
13		C-Debugging				I
14	Akilandeswari.D	Paper Presentation	7/9/2018	7/9/2018	TRANSCEND-2K18Dhanalakshmi Srinivasan Engineering College,Perambalur	I
15		Adzap				I
16		C-Debugging				I
17	V.Arivarsan	Crack in	19/9/2018	20/9/2018	Coimbatore Institute of Technology	II

S.NO	Student Name	Event Name	From date	To date	Conducted at (college name / location)	Prize
18	M.VeeraHarish	Innovate Contest	23/8/2018	23/8/2018	K Ramakrishnan College of Engineering	III
19	V.Varshini	Innovate Contest	23/8/2018	23/8/2018	K Ramakrishnan College of Engineering	II
20	B.Rajaram	Innovate Contest	23/8/2018	23/8/2018	K Ramakrishnan College of Engineering	III
21	R.Kesava Pradha	Technical Quiz	18/8/2018	18/8/2018	Vellammal Engineering College, Chennai	I
22	N.Immanuel Irwin	Technical Quiz	18/8/2018	18/8/2018	Vellammal Engineering College, Chennai	I
23	GR.Thayalan	Web Designing Contest	18/8/2018	18/8/2018	Vellammal Engineering College, Chennai	I
24	S.RoshanKumar	Technical Quiz	11/9/2018	11/9/2018	MAM College of Engineering	II
25	S.SathishKumar	Technical Quiz	11/9/2018	11/9/2018	MAM College of Engineering	II

Students Participation in Technical Events

S.NO	Student Name	Event Name	From date	To date	Organized by (dept name / org. name)	Conducted at (college name / location)
1	Shaarna Fathima S	3rd National Level Women Hackathon 2018	7/10/18	8/10/18	Oracle Acadamey,acm-w Ahmedabad University	School of Computer studies, Ahmedabad University
2	Padma pooja K N	3rd National Level Women Hackathon 2018	7/10/18	8/10/18	Oracle Acadamey,acm-w Ahmedabad University	School of Computer studies, Ahmedabad University
3	Samyutha J	3rd National Level Women Hackathon 2018	7/10/18	8/10/18	Oracle Acadamey,acm-w Ahmedabad University	School of Computer studies, Ahmedabad University
4	M.Bhavadharani	Web Development	20/9/2018	20/9/2018	Dept of CSE	Sai Ram Engineering College
5	B.Beryl Susanna	Web Development	20/9/2018	20/9/2018	Dept of CSE	Sai Ram Engineering College
6	T.Dinesh	Web Development	20/9/2018	20/9/2018	Dept of CSE	Sai Ram Engineering College
7	M.VeeraHarish	Code Cracker	20/9/2018	20/9/2018	Dept of CSE	K.Ramakrishna College of Technology
8	S.Sudharsan	Code Cracker	20/9/2018	20/9/2018	Dept of CSE	K.Ramakrishna College of Technology
9	S.VigneshRaj	Code Cracker	20/9/2018	20/9/2018	Dept of CSE	K.Ramakrishna College of Technology
10	N.Vignesh	Code Cracker	20/9/2018	20/9/2018	Dept of CSE	K.Ramakrishna College of Technology
11	S.Nivetha	Paper Presentation	18/9/2018	18/9/2018		Kings College of Engineering, Thanjavur

12	K.Banumathi	Paper Presentation	18/9/2018	18/9/2018		Kings College of Engineering, Thanjavur
13	M.Sheik Magdhoom	Paper Presentation-Cyber Security	19/9/2018	20/9/2018	Dept of CSE	Coimbatore Institute of Technology
14	B.RajaRam	Paper Presentation-Cyber Security	19/9/2018	20/9/2018	Dept of CSE	Coimbatore Institute of Technology
15	J.Samsson	Paper Presentation-Cyber Security	19/9/2018	20/9/2018	Dept of CSE	Coimbatore Institute of Technology
16	M.JeevaRamanathan	Coding Contest,Debugging,Data Processing,The Loop,Crack in	19/9/2018	20/9/2018	Dept of CSE	Coimbatore Institute of Technology
17	M.VeeraHarish	Innovate Contest	23/8/2018		Dept of CSE	K Ramakrishnan College of Engineering
18	S.Sudharasan	Innovate Contest	23/8/2018		Dept of CSE	K Ramakrishnan College of Engineering
19	V.Varshini	Innovate Contest	23/8/2018		Dept of CSE	K Ramakrishnan College of Engineering
20	A.Suganya	Innovate Contest	23/8/2018		Dept of CSE	K Ramakrishnan College of Engineering
21	J.Samsson	Innovate Contest	23/8/2018		Dept of CSE	K Ramakrishnan College of Engineering
22	B.Rajaram	Innovate Contest	23/8/2018		Dept of CSE	K Ramakrishnan College of Engineering
23	R.Kesava Pradha	Coding Contest	18/8/2018		Dept of CSE	Vellammal College of Engineering
24	N.Immanuel Irwin	Technical Quiz	18/8/2018		Dept of CSE	Vellammal College of Engineering
25	GR. Thayalan	Coding Contest	18/8/2018		Dept of CSE	Vellammal College of Engineering
26	S.Dhivakar	Coding Contest	18/8/2018		Dept of CSE	Vellammal College of Engineering

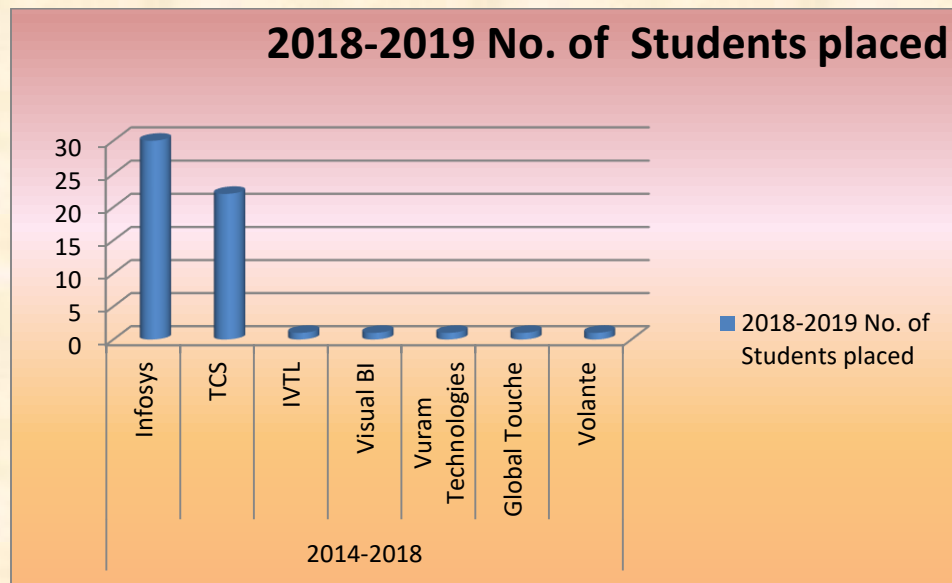


Placement details



Placement Details

2018-2019		
Students Batch	Company Name	No. of Students placed
2014-2018	Infosys	30
	TCS	22
	IVTL	1
	Visual BI	1
	Vuram Technologies	1
	Global Touch	1
	Volante	1





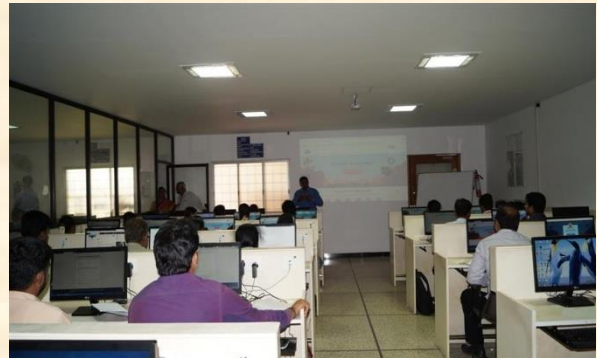
Faculty Contributions



Faculty Achievements

KNOWLEDGE ENRICHMENT THROUGH FDP

- Mr.S.Venkatasubramanian, Ms.N.Kavitha, Ms.J.SathiaParkavi, Ms.K.Mohanappriya, Mr.A.T.Barani Vijayakumar, Mr.R.Mohankumar, Mr.P.Dineshkumar, Mr.Karthik, Mr.Hemanth Kumar ,Mr.M.Anbazhagan, Mr.D.Boobala Muraldharan has participated in “**5 days FDP on Salesforce Essentials for Business Specialist**” conducted by ICT academy from July 23rd to July 27th 2018 at Saranathan College of Engineering.

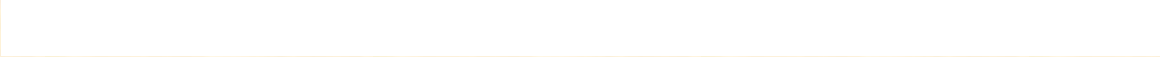


- Dr.S.Mohana & Ms.R.SenthamilSelvi has actively participated in 3 days webinar based Train The Trainer workshop on “**Data Visualization**” conducted from 25th July to 27th July 2018.
- Dr.P.L.RajaRajeswari & H.Sugunya has attended two days of workshop on”10 essentials qualities of a good teacher” by ICT academy on 10th & 11th August 2018 at Saranathan College of Engineering

INTERACTION WITH OUTSIDE WORLD

- Dr.S.A.SahaayaArulMary & Dr.P.L.RajaRajeswari served as a judge in TNSCST Project contest at National College on July 20th and 21st 2018

FACULTY ACHIEVEMENT

- Mr.S.Venkatasubramanian, received the Global Teachers Award presented by AKS educational services and award at NewDelhi on 16th Sep 2018.
 - Ms.N.Kavitha, Ms.S.Prabasri, Ms.N.LavanyaBai has successfully completed the SkillTester exam conducted by ICT Academy and recognized as ICT academy certified Trainer in C++ programming during the month of August 2018.
 - Mr.R.MohanKumar has successfully completed the SkillTester exam conducted by ICT Academy and recognized as ICT academy certified Trainer in C programming during the month of August 2018
- 

TECHNICAL ARTICLES

Tizen Operating System

Like Android operating system, Tizen operating system is also an open source and one can use Tizen Common base to develop a new profile to meet the memory, processing and power requirements of any device so, we can easily expect it to grow to a next level.

Tizen is a flexible operating system built from scratch to address the needs of all stakeholders of the mobile and connected device ecosystem, including device manufacturers, mobile operators, application developers and independent software vendors. The best thing about this OS is support for HTML-5. We will discuss more on the significance of HTML-5 support soon. Tizen also provides application development tools based on the JavaScript libraries jQuery and jQuery Mobile.

Tizen Operating System Vs Android Operating System:

- **Booting** – Tizen is lightweight and offers faster start-up compared to Android.
- **Notification bar** – Just like devices running Samsung's TouchWiz UI, there will be a swipe down notification bar on Tizen devices.
- **Smoother scrolling** – Tizen offers improved scrolling and rendering performance for web browsing.
- **Multi-tasking and multi-touch** – Multi-tasking and multi-touch gestures are supported just like on Android devices.
- **3D** – Tizen will offer 3D window effects with support for apps and games that require advanced 3D graphics.
- **64-bit processors** – Tizen version 3 will support 64-bit processors, which is something that Google is working on for its next Android update.



Ranjani III CSE B

Digital Image Forgery

- Digital image forgery is the process of manipulating photographic images using image-processing tools like digital photo editing software to produce a digital image as evidence to the court; there is a need to identify the authenticity of the image. Digital Image forgery can be classified as the forgery with copy move and without copy move. In case of copy move type, some part of the image is cut and pasted somewhere in the image so that there are no manipulations like rotation, scaling etc. In the other case, due to the above-mentioned types, the data becomes highly correlated. The advent of the modern digital

technology has not only brought about the prominent use of digital images in our daily activities but also the ease of creating image forgery using public accessible and user friendly image processing tools such as Photoshop. Hence the need for image authenticity assurance and detection of image forgery such as photomontage becomes increasingly acute as digital images take role as news photographs, legal evidence and digital financial document.



Vignesh III CSE B

A Security Assessment Model for Infrastructure as a Service (IaaS) Clouds

The vulnerability of cloud computing systems (CCSs) to advanced persistent threats (APTs) is a significant concern to government and industry. We present a cloud architecture reference model that incorporates a wide range of security controls and best



practices, and a cloud security assessment model-Cloud-Trust-that estimates high level security metrics to quantify the degree of confidentiality and integrity offered by a CCS or cloud service provider (CSP). Cloud-Trust is used to assess the security level of four multi-tenant IaaS cloud architectures equipped with alternative cloud security controls. Results show the probability of CCS penetration (high value data compromise) is high if a minimal set of security

controls are implemented. CCS penetration probability drops substantially if a cloud defense in depth security architecture is adopted that protects virtual machine (VM) images at rest, strengthens CSP and cloud tenant system administrator access controls, and which employs other network security controls to minimize cloud network surveillance and discovery of live VMs.

Madhubala III CSE A

An Intermediate Data Partition Algorithm for Skew Mitigation in Spark Computing Environment

In the parallel computing framework of Hadoop / Spark, data skew is a common problem resulting in performance degradation. This paper proposes a key reassigning and splitting partition algorithm (SKRSP) to solve the partition skew from the source codes of Spark-core_2.11 project, which considers both the partition balance of the intermediate data and the partition balance after shuffle operators. First, we propose a step-based algorithm for sampling the input data to estimate the general key distribution of entire intermediate data. According to the types of the specific applications, we design two algorithms: hash based key reassigning algorithm (KRHP) and rang based key splitting algorithm (KSRP), which can generate appropriate strategy and implement them in shuffle phase. For the type of sort-based applications, KSRP generates the weighted bounds to split intermediate data, and for other applications, KRHP records these reassigned keys and the new reducers these keys belong to. Finally, we implement SKRSP in Spark 2.2.0 and evaluate its performance through three benchmarks exhibiting significant data skew: Sort, Join, and PageRank. The experimental results verify that our algorithm not only can achieve a better partition balance but also reduce the execution time of reduce tasks effectively.

Ms.J.SathiaParkavi AP/CSE

Google Home and Amazon Echo Can Store Your Voice Recordings. Here's When They Could Be Used Against You.

AMAZON ECHO AND Google Home—and other devices that have Alexa and Google Assistant built in—are some of the most promising new technologies to come along in years. And they're genuinely useful to have around, whether it's to settle a bet or help out with a recipe. But it can also feel a little creepy to have a speaker in your house that's always listening. What exactly is it doing with that info? Where does it go?

Here's the good news. While their microphones are always on, Google Home and Alexa don't actually do anything with your voice until you say their "wake word," which is usually just 'OK Google' or 'Alexa'. Despite the occasional viral story that suggests otherwise, Amazon and Google truly aren't keeping track of every single thing you say.

After you say your wake word, though, your Alexa and Google Assistant do start recording, and then whisk those clips away to the cloud. The hardware itself is pretty dumb. In order to let you know with a snap who the 23rd president was, or what the weather will be like tomorrow, or to play a Dokken deep cut, voice assistants need to be able to pull information from the entire internet. That means a faraway server somewhere is what actually handles your request.

And on that server they'll stay, unless you actively delete them. Which, fortunately, isn't all that hard. Amazon and Google let you see what requests they've logged. In your Alexa app, go to Settings > History to see what Amazon has on file, and to delete them one by one. If you'd

rather do a mass purge, head here and go to Your Devices > Echo Dot > Manage voice recordings. A pop-up will give you the chance to clear out the whole stash. For Google Assistant, go to myactivity.google.com. That's also where you can delete your voice requests, if you don't want them lurking on corporate servers somewhere. Click on the three-dot line in the upper-right corner, then Delete activity by. From there, you can set a date range—today, yesterday, last 7 days, last 30 days, all time, or custom—and the service whose interactions you want to nuke. Click on All products, then Voice & Audio, then hit Delete. You'll get a pop-up that asks if you're absolutely positively sure you want to go through with it. Click OK, because you do. Then do the same for Assistant while you're in there, just to be thorough. (There are 19 additional categories, ranging from Ads all the way down to YouTube, if you want to linger and take stock of just how much time you've spent with Google lately.)

And if you're still anxious about Echo and Home, remember that both come equipped with a handy mute button. The Echo's is on top; Google Home's is in the back. Just remember that if they can't listen to you at all, they're basically fancy paperweights.

Dr.S.Mohana Assoc.Prof

Programmer's Drinking Song

100 little bugs in the code,

100 bugs in the code,

fix one bug, compile it again,

101 little bugs in the code.

101 little bugs in the code.....

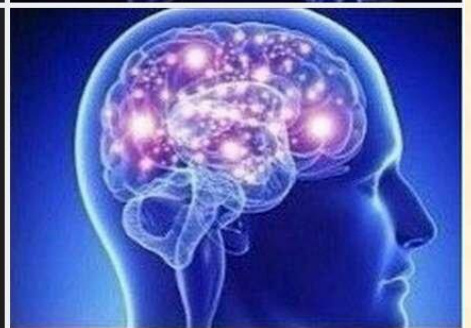
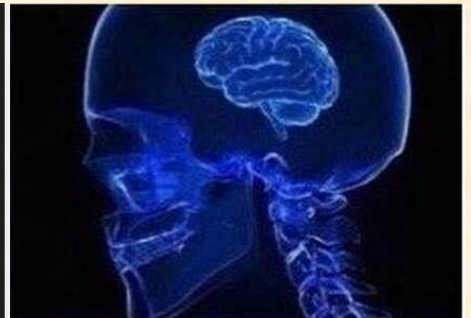
Repeat until BUGS = 0

```
for (int i = 0; i<100; i++) {  
    Console.WriteLine(i);  
}
```

```
int i = 0;  
while (i<100) {  
    Console.WriteLine(i);  
    i++;  
}
```

```
int i = 0;  
  
Loop:  
if (!(i<100)) goto End;  
Console.WriteLine(i);  
i++;  
goto Loop;  
  
End:  
return;
```

```
<?php  
for($i = 1; $i<100; $i++) {  
    echo $i;  
}  
?>
```





THANK YOU