

World Curriculum Learning Classroom  
Schools Advanced Charge Online Teachers Assistive Computer Design Teaching Apply Legal Studies  
Educational Education Issues Using Applications Special Web Instructional Information Interactive  
Environments Experience Research Systems Video Fundamentals Tools Media Instruction Leadership School  
Integrating

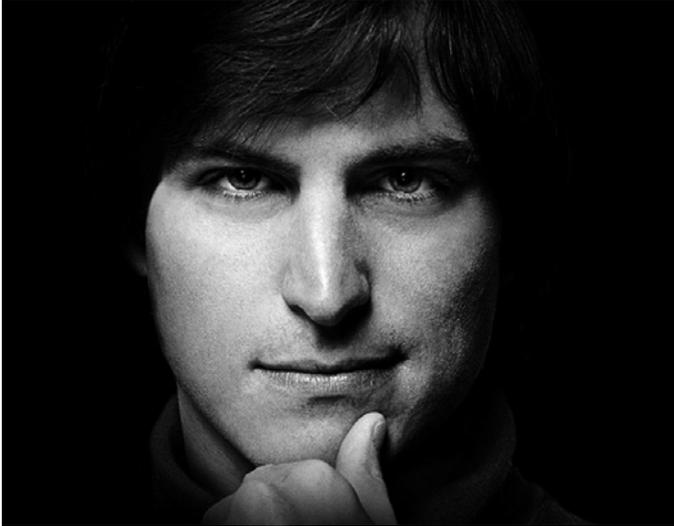
# Silicon Magic

SEPT 2016



**KUMARAGURU**  
college of technology  
character is life

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



## **Steve Jobs**

Everybody in this country should learn how to program a computer...

**CHIEF EDITORS**

CSE

**Prof. S. J. Syed Ali Fathima**

**Contact : 9843022217**

**STUDENT EDITORS**

3RD YEAR CSE

**S. Nandha kumar**

**H. Ibrahim Badhusha**

## INAUGURATION

EMC CENTRE OF ACADEMIC EXCELLENCE

Kumaraguru College of Technology, Department of Computer Science, Coimbatore and EMC Corporation, Bengaluru set up **EMC CENTRE OF ACADEMIC EXCELLENCE IN DATA SCIENCE AND BIG DATA ANALYTICS** at KCT to work together to bridge the gap between industry and academia.

**Mr. Abhijit Sreenivas**, Principal Marketing Program Manager-Industry Relations at EMC Data Storage Systems India Pvt Ltd, Bengaluru handed over the Academic Alliance Memento to our Joint Correspondent, **Shri Shankar Vanavarayar**, which formally opened the academic alliance on 29/07/16. The Head of the Department, faculty members and Students of CSE department and other departments of KCT participated in the ceremony.

This Centre of Academic Excellence (CoAE) will help students to get trained in the area of Data Science and **Big Data Analytics**. This will enable the students to gain more practical knowledge and secure jobs in the core industry. This CoAE will be used for research by faculty and students of KCT to strengthen their knowledge in this area.



## DEPARTMENT EVENTS

### TECHNICAL TRAINING PROGRAMS

#### Infosys trainer programme on “Python Programming”:

In connection with Infosys Campus Connect program, CSE and IT department have jointly organized 3Dyas “Train The Trainer Program on **Python programming**” from 30.05.16 to 01.06.16. All the 3 days session was handled by Infosys Campus Connect Anchors Mr. Roy Arnold, Lead, ETA and Ms. Kalpana, Lead, ETA.

The objective of the TTT is to share the experience on developing Applications using Python with the

college faculty members to enhance them in turn they can share the same with their peers and students in their campus with greater effectiveness and rigor, and also offer a networking platform to the Infosys Campus Connect MoU partner colleges leading to a mutual learning experience.

The **42 faculties** from various **Infosys** Campus Connect MoU colleges from all around Tamilnadu and **10 faculties** from **Kumaraguru College of Technology** , totally **52 faculties** were attended this workshop.



## Android Workshop:

It's a one-day workshop with hands-on session to impart basic Android knowledge and to kick start the android application development.

### Topics covered in the workshop are:

- ⇒ Introduction to Android
- ⇒ Setting Up Android Studio
- ⇒ App Demo
- ⇒ Hands on sessions
- ⇒ Road map on App Development



## Other Events:

Event Name	Resource Person	Date
<b>Value added course - Placement Technical Training</b>	CSE Dept. Staffs	09/06/2016 - 15/06/2016
<b>Linux Basics and virtualization concepts for Academic supporting staff members (CSE Dept.)</b>	Mr. S.P. Siddique Ibrahim (CSE Dept.)	21/06/2016
<b>Guest Lecture on Career Awareness Program</b>	Mr. Sivan Ammamuthu, Vice President , Global Delivery Assurance, Capgemini, Bangalore	12/08/2016
<b>International certification EMC- Data Science Associate for about 150 students from CSE, IT, MCA and ECE</b>	Dr. D. Chandrakala Mrs. R. Kalaiselvi, Mr. S.P. Siddique Ibrahim, Mrs. V. T. Karthika (CSE Dept.)	June 2016- Sep 2016

## ALUMNI EVENTS

### BACK TO COLLEGE

Our Alumni **Mr.Ram Marrappan** visited our department on **15.6.2016**. There was a meeting with him to discuss about trends and researches in computer domain.



There was guest lecture on “**Visual Effects**” by Our Alumni **Mr. Ravishankar Raju**, working as Project Manager at **Mari and New Technologies in London**. He belongs to 2007 passed out Batch.



**Mr.S.Swaminathan**, who belongs to 1988-1992 batch and working as Head of Business Development for GS1 India, Delhi visited our department and delivered a lecture on Global Technology standards and Best practices in India followed by there was meeting in the department. Faculty interacted with him about thirty minutes regarding getting consultancy projects from government sectors.



On **29.07.2016**, Alumni silver Jubilee celebrations for Batch 1987-1991 was organised in our College. Alumni of CSE who came for this event visited our department and had a meeting with all staff. In meeting development of Curriculum and Assessment methods, providing one credit course were discussed.



## ACHEIVMENTS

OUR STRENGTHS

### AWARDS

#### FACULTY

Faculty Name	Award
Mr. V.Senthilkumar, Assistant Professor	Silver partner faculty in Infosys Campus Connect program
Mr. R.Kirubakaran Assistant Professor	Bronze partner faculty in Infosys Campus Connect program
Mrs. S.J. Syed Ali Fathima Assistant Professor	Bronze partner faculty in Infosys Campus Connect program

#### STUDENT

S. No	Roll No.	Student name	Name of the event and organizer details	Date	Type of event (International/ National/ State)	Details of award received
1	14BCS076	Revanth Raj	KSR college	17.7.2016	State Level- CATC CAMP	
2	14BCS076	Revanth Raj	KSR college	17.7.2016	Rifel firing	Gold Medal
3	14BCS085	Shanmuga Rajeshwari	PSG Tech	10.7.2016	CATC Camp	
4	14BCS094	Sowmiya M	PSG Tech	10.7.2016	CATC Camp	
5	14BCS212	Rajeshwari	KKC, Namakkal	01.6.2016	TSE Selection camp	
6	14BCS212	Rajeshwari	KIT, Coimbatore	27.6.2016	TSE Selection camp	
7	14BCS212	Rajeshwari	PSG Tech	10.7.2016	TSE-IGC launch camp	
8	14BCS212	Rajeshwari	James Engineering College	22.7.2016	TSE-IGC launch camp	

**FACULTY INTERNSHIP**

**Mrs. V.P. Sumathi at IISc, Bangalore  
Crowd Estimation at a Social Event  
using Call data records**

The objective of this work is using call data records to estimate the crowd at an unstructured event in a city. Segregating attendees of the event from other

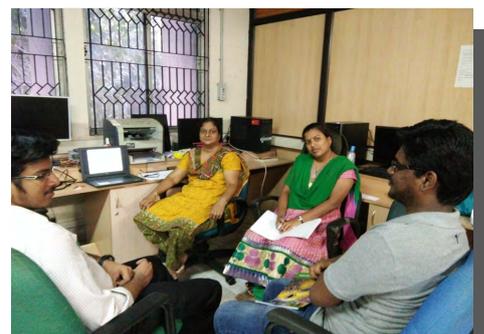


regular visitor, paves way for new applications such as measuring event success and outdoor advertising. Traditional methods of crowd estimation at points of interests such as shopping malls, cinema halls, stadium and exhibitions using sample analysis of visitor through participant count obtained by number of tickets sold. In such a free-to-view event, the above said method does not help in accurate crowd estimation and social analysis. The study was conducted at Indian Institute of science (IISc) campus, Bengaluru on a special event day. The crowd estimation done using call data records have positive correlation with ground truth-value.

**Our Faculties at IITM**

- ⇒ Dr.D.Chandrakala, Professor/CSE
- ⇒ Ms. D. Aswini, AP/CSE,
- ⇒ Ms. Francis Jency, AP/CSE
- ⇒ Mr.R.Kirubakaran, AP/CSE

One month internship training under Dr.V.Kamakotti, Professor, CSE department,



IIT Madras. The first half of training was on Architectural aids in building secured systems. It dealt with the architectural issues, Operating system issues and network issues that need to be addressed while designing a system. The second half introduced working with Bluespec tool. Bluespec's products include synthesis, simulation and other tools for two languages: Bluespec SystemVerilog (BSV) , ESE (ESL Synthesis Extensions to SystemC) to simulate chip designing.

**CONTINUOUS LEARNING**

**Technical Skill Upgrades**

Program Name	Faculty Name	Date
FDP on Designing Learning Experiences for students in networking and Telecommunications Courses, KCT	Mrs. N. Jeba, Mr. G. Kanagaraj, Ms. S. Nithya Roopa, Mrs. D. Sathya,	15/06/2016 - 21/06/2016
Workshop on Cloud Day on Amazon web services, Amazon, The Grand Regend , Coimbatore	Mr. G. Kanagaraj, Mr. V. Sankar	24/06/2016
Workshop on Statistical techniques for Business Process Improvements, ISI, CODISSIA, Coimbatore	Mrs. S. Rajini	24/06/2016
Workshop on Data Analytics and Research, KCT	Mrs. S. Rajini	29/06/2016
The 2016 International Summer School on Information Security and Protection, Amrita School of Engineering Bangalore	Mr.U. Thiruvaazhi	02/08/2016

**Our faculties as Resource Person**

Program Name	Faculty Name	Date
ISTE sponsored workshop on Arduino Programming, SNS College of Technology, Coimbatore	Dr. V.Vanitha, Mrs. V.P.Sumathi, Mrs. D.Aswini	30/07/2016

**Paper Publications**

Journals
<b>Chandrakala D</b> , Sathish Kumar T, Preethi S and Sowmya D, "Optimization Process Parameters of Global Sequence Alignment based Dynamic Program- An Approach to Enhance the Sensitivity of Alignment", International Research Journal of Engineering and Technology (IRJET), Vol:03, No:05, June 2016
<b>S.J.Syed Ali Fathima</b> , S.Shanker, and A.Ahamed Thajudeen , "A Survey on Assistive Technology using Natural User Interface (NUI) computing to support and augment therapeutic rehabilitation", INTERNATIONAL JOURNAL ON ADVANCED RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY (IJARSET) , May—Aug 2016

## COMPETITIVE EXAMS

GATE \* GRE \* UPSC \* TNPSC

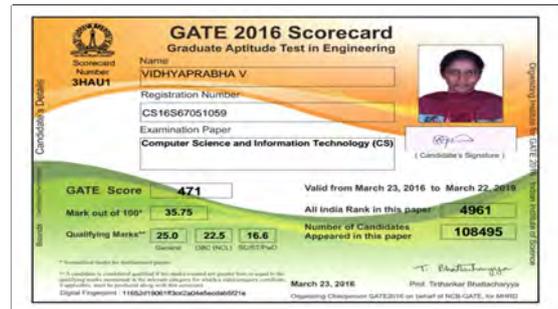
The Students of 2012-2016 showed a good placement record. In spite of that, many students were interested in higher studies and were motivated to take up GATE and GRE. The students successfully applied for GATE 2016 before Oct 10, 2015. Around 6 students attended GATE exam in which **VidhyaPrabha.V** scored **35.75** where the qualifying score is 22.5 for OBC.

The experts from **GATE Academy**, Coimbatore came forward to conduct the awareness program followed by a test judging the technical ability of the students.

In 2013-2017 batch, around 8 Students are interested to take up **GRE** and are successfully preparing for it. In order to

motivate the present second and third years on competitive exams few events were conducted. Around 80 of our students attended the GATE and Public Sector Exam Awareness Program on 2nd July 2016 at Seminar Hall and Mr. Kamal from **S.K Academy** for engineering addressed the students.

Further an alumni of Biotech, Mr. Senthil who currently cleared UPSC exam and is waiting for appointment as IPS addressed students and motivated them on 29.07.2016. A forum is created for GATE where the questions on technical subjects are posted and students actively answer them. Further **UPSC/TNPSC** exams coaching class is planned to be conducted in KCT.



**PLACEMENT RECORD**

2013 -2017 BATCH (JUN—AUG 2016)

<b>S.No</b>	<b>Company Name</b>	<b>Students Placed</b>
1	Voonik Technologies	Felix Sundar.M
2	Zoho	Senthil Vidhyakar.S Karthikeyan.B
3	Robert Bosch	Illakiya.J Krishna Priya.E Nivetha.P Raghavi.V
4	Payoda Technologies	Balaskandan G
5	Oneglobal Systems	Vaishnavi B
6	OLOG	Malarvizhi S
7	Yodlee	Revanth M

STUDENTS CORNER

POEMS \* ARTICLES \* ARTS

**நினைவுகள்**

காலங்கள் உருண்டோடும்  
கண்ணிமைக்கும் நேரத்தில்  
நினைவுகள் மட்டும்  
நெஞ்சோடு என்றும்  
இனிய கதைகள் பேசிடும்  
மனதில் வசந்தங்கள் வீசிடும்  
இமைமூடி சிந்திக்கையில்  
இதழோரம் புன்னகை பூத்திடும்  
வயதினை குறைக்கும்  
ஆற்றலுண்டு  
என்றும் என் நினைவுகளுக்கு  
கரைந்து போகிறேன் என  
மறந்து போகிறேன் என்  
அழகிய நினைவுகளோடு நான்

-திகழ்

-Rajeshwari, III CSE

**அலைபாயும் மனம்**

மாலைவேளையின் மங்கிய ஒளியில்  
மதி மயங்க வைக்கும்  
அழகிய நிலவொளியில் தனிமை  
தனிமை தருவது சுகமோ வலியோ  
தெரியவில்லை மனதுக்கு  
புரியவில்லை  
அழகின் நிழலில் கரைகிறேன்  
காணாமற் போகிறேன்  
மனதை தொலைக்கின்றேன்  
தொலைந்த மனதைத் தேடித்  
தவிக்கின்றேன்  
இதோ என் உடல் இங்கே  
நினைவுகள் எங்கே ? எங்கோ  
அலைபாயும் மனம் நிலவொளியில்

-திகழ்

-Rajeshwari, III CSE

## **HUMAN COMPUTER INTERACTION USING MICROSOFT KINECT GESTURE TECHNOLOGY**

The field of sensor based human computer interaction and robotics is rapidly developing. As there is a continuous advancement in the techniques followed, the way of using every day technological products is also improving proportionally. From man-powered to machine controlled environment the importance is given to the way we make use of a technology. Nowadays the physical control of devices is just an old fashioned style whereas there are unique ways of controlling the machines such as using our voice and gesture.

The idea is about using a Microsoft kinect device to implement a suitable interface between a machine and human where users can control machines (for e.g. computer, robot etc.). Microsoft developed this device as a medium of gaming, but later its applications improved to various fields of research and development. The actual need of such a technology is to reduce human efforts over controlling machines and this will be the first step towards the concept of artificial intelligence.

The actual problem arises when a human is not able to execute his commands over a machine. This is due to the difficulty in understanding the in-depth mechanism or cause of human errors (such as programming errors or manufacturing errors). Such difficulties can be avoided by using advanced machines which can understand or get the commands through the human gestures using Kinect and execute the required action, thus there is no necessity of programming knowledge or any physical controller.

The skeletal tracking ability of kinect provides an efficient way of controlling a device through gestures. The kinect sensor uses a depth map and colour image as well. We can make use of kinect SDK for programming our own applications over the usage of kinect. Thus the idea revolves around

how we can implement kinect in all the devices in order to create a hands free and smarter environment where machines will learn from human commands and perform the same.

Gesture based human computer interaction is a emerging domain of research, which can change the way we look at the machines and what they are capable of. Once devices like kinect is made essential in everyday machines, we can create a smarter environment where human's role will be played by machines

**- PRAVEEN M, 13BCS072, IV CSE**

## **MARKETING – A HUGE CHALLENGE**

In this article “Marketing – A Huge Challenge”, I am going to convey the strategies in Marketing. Do you think that in any company, the price of any product manufactured by them is determined by the shareholders or an expert group? No.

It is always determined by the competitors for the product. The product can be sold with more profit if it is unique in the market and with less profit if it has more competitors. Some products are advertised with price tag ending with '99' insisting the buyer that the product is lesser in price. These are some marketing strategies that are being followed by the most of the companies.

The Three aspects of Marketing are 1. **Knowing the market demand** 2. **Differentiation** 3. **Specification**. 1) Whenever a business is being started, one should have the view of the demand of the market. Then start serving the customers, provide good service and it will seed the relationship between you and the customer.

2) Even though providing a great service to the customers, it is important to be different from others. Serve the customer with what they want and also concentrate on improving the services and update regularly to go to the next level of competition.

3) Specification is the major aspect of marketing. The company should have a unique feature to attract its customers. Creating a unique style will always make your customers engaged. Standing out of competition is only the way to rule the market.

Let us see some of the marketing techniques followed by popular companies. As it is trending topic, we take “Jio”. Jio is introducing a new technology in India, “VoLTE” and there is no competition. It is providing free calls and SMS through VoLTE with high clarity and assuring the lowest cost 4G LTE internet connection. Indian users are not familiar with 4G yet and there is very less number of active 4G phones in India. Imposing 4G to Indian Market with really attracting benefits made the most to switch to the Network. But when the people are looking for the devices compatibility, Jio gives LYF mobiles and LYF Wi-Fi Hotspot as the best choice with the best deals. It makes Reliance to be benefited with selling devices and services, both at a time. Even though Airtel made some new plans to attract people again, it failed due to the unfair relationship with its customer. “Mc-Donalds” is a leading fast food restaurant. It introduced combo packs by analysing what people prefer for their food. The combo pack attracted people because people find it 1) Useful 2) Reasonable price 3) Easy to choose. Mc-Donalds sold burgers with drinks, French fries too. After that all other competitors started copying their strategies. Marketing cannot be shrink to a little world. It is dynamic and adaptive to the market and still a huge challenge.

## கணினி

உன் உருவத்தில் நீ தோன்றுகிறாய் பெரியதாக!

உன் உடலுக்குள் அடக்கிவிட்டாய் இவ்வலகத்தைச் சிறியதாக!

உன்னை உருவாக்க பயன்படுகிறது மனித மூளை!

நீ இருந்தால்தான் இந்நாளில் எங்களுக்கு வேலை!

நீ உலகத்தை வைத்திருக்கிறாய் உன் கையில்!

உன்னை வைத்திருக்கிறோம் நாங்கள் எங்கள் பையில்!

நீ அறிவியலுக்கு அமைந்தாய் ஓர் இயந்திரமாக!

நீ எங்களுக்குக் கொடுத்தாய் பணி நிரந்தரமாக!

உன்னால் எங்களுக்கு எல்லாம் எளிதாய் தோன்றும்!

நீ இல்லாத அறிவியல் இருண்டே போகும்!

- INDHU PRIYA, III CSE .



ART WORKS DONE BY

**RAGAVI. R. R (13BCS078), IV CSE**

