



News Letter November-December 2017 DEPARTMENT OF COMPUTER APPLICATIONS



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KUMARAGURU COLLEGE OF TECHNOLOGY

Kumaraguru college of Technology (KCT), Coimbatore is an autonomous Engineering College, established in 1984 under the auspices of Ramanandha Adigalar Foundation, part of Sakthi Group headed by Arutchelvar and Dr.N.Mahalingam, Gandhian. industrialist philanthropist. а a He envisioned to empower the youth through quality education and thereby drive socio economic development blended with spirituality. True to the vison of its Founder, KCT stands today as an institution of excellence in technical education with 32 years of illustrious service to the students, many of whom are shining as leaders and contributors to development, across the world.

Located amidst the IT corridor in a sprawling campus of 150 acres, KCT offers 13 Under Graduate and 14 Post Graduate programmes with many approved Research Centres. More than 6000 students are imparted quality technical education by a dedicated team of 395 qualified and experience faculty members who are ably assisted by 360 supporting staff. The college has residential facilities to accommodate around 3300 students in 8 blocks with state-of-the art dining halls and student facility centre. Well-equipped laboratories, research facilities such as iQube, CEAD, Modern Garage, dirt-track range are some of the facilities part of KCT. FORGE, a techno business incubator of KCT provides technological consulting for startup pursuits of alumni of KCT and entrepreneurs, besides supporting conversion of innovative ideas of student into product development and commercialization.

In line with the vison of the Founder, students at KCT learn a holistic education where opportunities are aplenty for students for curricular pursuits and innovations, harnessing their talent and skills in co-curricular and extracurricular activities, besides a defined systems and processes for learning and imbibing ethical and human values, to shine as core professionals in their chosen careers. To facilitate this, the college has 28 clubs and forums, sports facilities spread across in 23 acres with modern facilities, a state of the art GYM, and an exclusive Department of Human Excellence, ably supported by the Mahatma Gandhi and Swami Vivekanandha Study Centres who groom the person in the budding professionals.

Under the able guidance and adept administration of Dr. B. K. Krishnaraj Vanavarayar, Chairman, Sri. M.Balasubramaniam, Correspondent and Sri. Shankar Vanavarayar, Joint Correspondent, the college has been consistently progressing in academics, infrastructural development including student amenities. The administrative building "Dr.Mahalingam Vigyan Bhavan" is an architectural beauty and a land mark in Coimbatore.

Armed with the legacy of the Founder and the able guidance and support of the Management, the college has been making strides in every part of its mission of holistic higher education to the youth. The continuous growth in placements over the years in well reputed IT and Core companies, pursuit of higher studies by students in renowned institutions in India and abroad and remarkable entrepreneurial pursuits of the alumni have been the laurels that adore KCT continuously. The Institution, Programmes are accredited by NAAC and NBA. The recent ranking of engineering colleges by National Institutional Ranking Framework (NIRF), the college has been ranked at 53rd position in all India basis. 1st rank in Teaching, Learning and Resources (TLR), 5th rank in Outreach and Inclusivity (OI), 6th rank in Publication, Research and Consultancy (PRC), among private unaided autonomous engineering colleges in india. With the continuous support of all its stake holders, KCT continues to march forward to the next levels of progress.



Master of Computer Applications

The Department of Computer Applications was established in the year 1993. Since its inception, the department has been striding great heights with a proactive vision and a strong commitment, with uncompromising standards of excellence, to develop competent programs and to groom the students with computational skills that shall match with the present and futuristic necessities of IT industry. With sanctioned strength of 60, the department offers MCA (Regular and Lateral) with curriculum designed with adept inputs from industrial experts to bridge the gap between the IT industry and the academics. The department has well-equipped laboratories with latest computer systems and software.

VISION

The department,

 Seeks to create academic programs and a campus culture that imbibes a socially committed professionalism which would in turn feed into the overall development of the society and make global citizens and leaders out of the students.

• Aims to become a highly recognized, research driven department with good infrastructure, developing industry ready products.

MISSION

 The Department is committed to set standards of excellence in its academic programme by enabling its students to achieve a blending of knowledge acquisition and applying such knowledge in real life situations.

 The Department aims to equip students to adapt themselves to changing the global and local needs, upholding professional ethics and contribute their might in transforming India into a world leader in technological advancement and prosperity

FACULTY CONTRIBUTION

CONFERENCE & WORKSHOP ATTENDED

Dr.V.Geetha/HOD, Dr.P.Parameswari/AP(SRG)/, Dr.R.K.Kavith/AP (SRG) attended a 7 days Faculty development programme on "Big data Analytics" Organized by School of Computing, Kumaraguru College of Technology in association with Robert Bosch Coimbatore from 25.11.2017 to 01.12.2017.

PUBLICATIONS

Mr.Ramachandran published a paper titled "An Advanced Data Processing Based Fusion IDS Structures" in International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, Number 21, 2017,pp. 10929-10936.

RESOURCE PERSON

Mr. Mr.L.Dhanabal/AP(SRG), instructor of KCT-CCNA Academy, a CISCO Certified Academy Instructor (CCAI) acted as a resource person on 25th October 2017 in the workshop titled "Two days Hands-on Workshop on Routing and Switching security using CISCO packet tracer" organized by the ECE department on 24th and 25th October 2017.



CO-CURRICULAR / EXTRA CURRICULAR ACTIVITIES

Workshop on "Photoshop" was conducted for I & II MCA students on 04.11.2017. The sessions were handled by Mr.Logasundar Muthusamy, Service Info Developer, Hewlett Packard Enterprise (HPE), Chennai.





Workshop on "Introduction to PHP and CodeIgnitor Framework" was conducted for II MCA students on 04.11.2017. Mr.Karthikeyan Babu, Senior Software Developer, Social Hub Info Solution, Bangalore served as the resource person for the programme.





Workshop on "C# Programming" was conducted for III MCA students on 18.11.2017. The sessions were handled by Mr.R.Venkatesh, Associate Software Engineer, Accenture, Chennai.





Teaching and Learning

Faculty started using Google class room to share the course materials and assignment to the students.

Two for our II MCA students are selected based on their merit to pursue Prototyping semester at forge.

STUDENTS DOMAIN

R.Viveak (16MCA043) and R.Aravindan (16MCA002) presented a paper titled "Automatic Detection of Retinal Lesions using Classical Segmentation with Resampling and Learning Classifiers" in the International Conference on Advances in Mathematical Science(ICAMS) organized by the Department of Mathematics, VIT, Vellore, from 1.12.2017 to 3.12.2017.

ALUMINI COLUMN

THE RIGHT TIME

College life is all about learning, growing and finding oneself. In college each day began with a new life and end with a new lesson, college life is not only the place to earn your degree/job it's give you the space to grow in person.

Our college gives you an immense opportunity to groom yourself for the future; if you are ready to take the responsibilities then you can see lots of freedom. If you examine any great personality, they don't have pressure on their mind, nobody would have forced them to invent or do some work but they did by themself by giving the complete freedom to their heart & brain. Take the classes with dedication and seriousness, treat your guru's with respect and admiration, love your friends full heartily and have fun.

Now it is the time to do the things you want to do for you. If you want to get involved in something do it right now. Your time in college is unfortunately not endless, years may seem like an eternity to you now but trust me and it goes by in a blink of an eye. Nothing is guaranteed or set in stone, But getting as involved in this campus as possible and you will never be something you regret.

Understand the value of life/You, Remember the roots and focus on wings: the roots are to establish who we are and where we are from. The wings are to emerge the freedom to fly—to take what you have learned and soar to new heights and to reach beyond existing boundaries. Never involve in the (rat) race, it's always the journey that elates us, takes us towards our destination and not the race.

It is up to you to continue making our Department /College greater than it was when we left it. Make us all proud with what you choose to do with it.



Pavel S Lead Engineer, HCL , Chennai. 2006 - 2009 Batch

GUEST COLUMN

Open source software - Apache Hadoop

We are living in the era of systems that generates peta bytes of data by various means. So need for huge data / big data processing has increased these days significantly supplemented by the digital communication

channels (like hand phones, internet websites, transactions etc). So it triggers the need for processing the huge volume of unstructured data from various sources. Let us look how hadoop helps to achieve the big data processing.



Mr.P.Saravanakumar Free lancer – Business Analytics Singapore

Apache Hadoop, an open source software used for distributed data storage and data processing. This software is scalable to use cores from hundreds and thousands of computers distributed across geographies. This software allows creating libraries that can be packaged into a framework which allows distributed processing.

Hadoop with its principle of breaking up and distributing the unstructured data to multiple clusters achieves the current market needs. So breakdown the analytical requirements into small stories, create libraries for each story, setup a framework to generate the output required for analytics that benefits the business.

Now let us look at various layers in hadoop platform. In General, following are the common layers/utilities seen in any software

- Storage Layer
- Processing Layer
- Internal Data Access Layer
- External Access Layer
- Batch Scheduling Layer

Storage Layer:

Hadoop Distributed File System ("HDFS") is the hadoop storage layer that allows the users to store the huge data. There are three main components in HDFS called NameNode, DataNode, and Secondary NameNode. HDFS uses Master-Slave architecture model, NameNode will act as

a master and manages the Secondary NameNode. The data that is stored in HDFS gets replicated to various cluster nodes, it helps fail-over to the other nodes during disaster period and makes a Hadoop a reliable system.

Processing Layer:

Hadoop has a framework called "MapReduce" - a Java based system created by Google that breaks the bigger chunks into smaller tasks and manages to distribute the tasks to Hadoop file system cluster to generate the faster results.

Hadoop "YARN" enables effective resource utilization dynamically. Yarn has inbuilt Resource-Manager, Node-Manager and Application-Manager to handle dynamic resource utilization.

Internal Data Access Layer:

"Hive" developed by Facebook, uses HiveQL to access the data from HDFS system. Also "Pig" developed by Yahoo can be used to access the data from Hadoop file system.

External Access Layer:

External Data Integration is done using "Sqoop" component which imports the data from external sources.

Batch Scheduling Layer:

Hadoop has "Oozie", a batch/workflow scheduler that runs on Tomcat executes the jobs, and captures the job runtime details. Hadoop has "ZooKeeper" which coordinates the operations that are distributed.