Placement News

	Name	Company		Name	Company
1.	Mozhiirii Ado	Trivium e Solutions	6.	Baby K. Jojo	Stylus Inc.
2.	Rahul Krishnan	Trivium e Solutions	7.	Vineeth	IBM India Ltd.
3.	Shruthi Valsalan	Trivium e Solutions	8.	Manjeet Kumar	Auriga IT
4.	Alisha Antony	Utegration India Pvt., Ltd.	9.	Jobin John	Auriga IT
5.	Ashwin Narayan	Utegration India Pvt., Ltd.			

Industry Interaction

Forums like Tech Talk, Vinimay, Vichaarmanthan, and various other workshops and seminar series organized in the campus provides exposure and interface for the students to interact with high end professionals and official from elite and prime companies of India and multinational organization. The below mentioned are few important sessions conducted during last semester.



Sl. No.	Event	Date of the Event	Name of the Resource Person
1.	Alumni Interaction	19/07/14	Mr. Shinto Nirappil, Python Web Application Developer, Mahiti Infotech Pvt Ltd.
2.	Tech- Talk Series 1	26/07/14	Mr. Bharathi Raja, Senior Consultant, HCL Technologies Pvt., Ltd., Bangalore."Effective Interview Handling Skills"
3.	Life Skills Programme- IMCA	6/08/14	Center For Life Skills Education, Kristu Jaayanti College
4.	Inauguration of Academia Alliance Programme	8/08/14	Chief Guest – Shri. Rajesh R Nambiar – Academic Alliance Manager, EMC Corporation
5.	Interaction with Alumnae	16/08/14	Mr. Shinto Varghese and Mr. Thapan Chand – Software Developers - UST Global, Trivandrum
6.	Workshop on JAVA	19/08/14	FOSS (Free and Open Source Software – Java) by IIT, BOMBAY - Spoken Tutorial Project
7.	Workshop on "Network Virtualization"	27/08/14	Resource person – Mr. Babu Ebenezer, Assistant Manager, Wipro Technologies, Bangalore
8.	Webinar on "Agile Implementation Basics"	30/08/14	Mr. Rajsekhar Bhattacharjee,VP Product Delivery and GM, Kovair India Operations
9.	Vicharmanthan 23rd Edition	9/9/2014	Shri. S.K. Ranganath IAS (Retd.) Former Chief Secretary, Govt. of Karnataka
10.	3i- Industry Institute Interface	26/ 09/ 14	Mr. Jayas Damodaran, CEO, Boston technology Corporation, Bangalore.
11.	Tech-Talk Series on "Big Data, Big Opportunities"	20/210/14	Mr. Srinivas Gururaja Rau, Senior Director, Fidelity Investments, Bangalore.

COMING UP

The **International Conference on Current Trends in Advanced Computing** (ICCTAC) is hosted by the department in association with International Journal of Computer Applications (IJCA) for the current year is scheduled on 19 & 20 February 2015. The conference offers a bundle of technical sessions and showcases various technical articles from industrialists and research scholars. The conference proceedings will be later published in IJCA and by in various research and technical updates

The two day inter collegiate National Level IT Fest "**Shells 2015**" hosted by the department, is scheduled on 19 & 20 March 2015. This annual event provides an experiential learning platform for the students, helping them to transform themselves as professionals with managerial skills beyond the technical expertise acquired from the classrooms.

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technobytes

Department of MCA

Chief Editors : Rev. Fr. Josekutty P D, CMI, Principal | Rev. Fr. Augustine George, CMI, Vice Principal
Prof. R. Kumar, HOD of MCA | Staff Editor : Prof. Jyothi Manoj, Page Makeup: Bino Joseph

Contents

DEPARTMENT LAURELS

Bangalore University Rank Holders (2010 MCA Batch)

Thanuja B
Second Rank

Bhavyalatha N
Third Rank

Jenin Joseph
Fifth Rank

Awarded Ph.D by

(Anna University)

05 November 2014

Dr. Ambika P
Faculty
Department of MCA
Kristu Jayanti College, Autonomous

Software Defined Networking

Bob has a very important meeting being scheduled which due to a storm warning has to be converted into a live streaming video conference for 100+ users across the globe. The success of his meeting now depends on the high speed uninterrupted bandwidth of 100GBPS for 3hrs. Bob calls his ISP contact centre to upgrade his speed from 10GBPS to 100GBPS for 1 day and is ready to pay the difference in amount. ISP is unable to satisfy its customer need and convert a requirement into an opportunity due to its network limitations.

On-Demand/Programmable WAN capabilities for a service provider is one of the many examples which is compelling the industries towards a robust, interoperable and controllable network known as Software Defined Network (SDN).

Software-Defined Networks (SDN) is a relatively new paradigm for controlling and managing network devices. SDN is changing the way networks are designed and managed.

It has two defining characteristics. First, SDN separates the control plane (which decides how to handle the traffic) from the data plane (which forwards traffic according to decisions that the control plane makes). Second, SDN consolidates the control plane, so that a single software control program controls multiple data plane elements.

The architectural principles are:

1. Separation of network control and forwarding functions
2. Logically centralized network control elements (e.g. "controllers")
3. Programmable interfaces for the network (at multiple levels)

SDN implementations typically have the following characteristics:

- Network controllers are independent software elements.
- System elements use open, standardized interfaces.

SDN has gained significant traction in the industry. Many commercial switches support the OpenFlow API. HP, NEC, and Pronto were among the first vendors to support OpenFlow; this list has since expanded dramatically.

- Cisco says its new SDN solution will cut network costs by 56% and maintenance by 21%
- Oracle to integrate Solaris with OpenDaylight SDN framework
- HP network virtualization bridges OpenFlow and OpenStack

The world is now moving towards Software Defined

Everything (SDE), which may be explained as several technologies under one umbrella. For example, Software-Defined Networking (SDN) involves the creation of virtualized networks, where physical hardware is replaced by a sophisticated software system. A Software-Defined Data Center (SDDC) uses virtualization techniques to construct a data center. Software-Defined Storage (SDS) involves replacing a distributed hardware system with virtual storage systems.

SDE also is a comprehensive idea based on new applications of technology. SDE has been called the "next big thing," as SDE systems can be used to provide fully virtualized IT systems. With tools like hypervisors, virtual machines (VM) and virtual storage media, network pioneers move closer to the SDE concept as a basic physical hardware footprint.

Munir Mohammed
Program Specialist (ComSoc & eHealth)
IEEE, Bangalore
sdn.ieee.org

CURRENT EVENTS

Inauguration of "IEEE Student Chapter": The forum provides an interface for Jayantians to interact with students, faculty members and professionals off the campus to add milage to their research initiatives. The network connects more than 1,500 universities and colleges across the world.

One Day Workshop on "LaTeX " a software package for making scientific and technical documents, and is the standard adopted by professionals and researchers. It aids the research scholars to prepare elegant technical documents in accepted standards.

Dean's Message

One of the major driver for 'change' in the world today is progress in technology. Hence the learner, influenced by technological progress, social and environmental conditions has to keep abreast of the latest in his/his field of study through educational programmes, policies and other approaches. There is a need to strengthen the awareness of the learner, to promote and facilitate activities that will ultimately lead to the development of innovative approaches in teaching and learning. Involvement of students in contribution of articles for a newsletter is one such activity. I am sure that Technobyte will be an amalgamation of creative constituents formulated by students and faculty members and will inspire discussions on conventional, current and futuristic issues in the field of Information technology.

D. Calistus Jude

MCA Programme at a Glance

The Department of Computer Science (PG) of Kristu Jayanti College of Management and Technology was established in the year 2004 with the objective of providing vivid vistas to gain technical education to aspiring youth and to sculpt them into professionally competent workforce. At present there are 102 students and 10 faculty members in the department.

The autonomous curriculum is designed to hone robust software competencies and analytical and problem solving abilities among the students which are the prerequisites to prepare them for successful career as software professionals. The course structure and contents are regularly updated. The learning environment is intense and stimulating.

The regular academic programme is supplemented by Seminars, Workshops, Self-development Activities, Attitudinal Workshops, Soft Skills Training, Tech-Talk Series, Student Seminar Series, Communication Sessions and Aptitude Reinforcement Modules. These sessions are conducted on a continuing basis by experts from industry. These programmes predominantly aim at keeping the students abreast of the current advances in the field. As part of knowledge sharing, peer to peer teaching is motivated amongst the students.

The special features of the department include the successful conduct of Conference on Current Trends in Advanced Computing (CTAC) once in a year from past 5 years. The three editions of conferences were sponsored by ISRO and latest two were conducted as International Conference on Current Trends in Advanced Technology (ICCTAC). These two were conducted in association with International Journal of Computer Applications (IJCA) for publication of research articles presented. This year the third edition of the ICCTAC will be conducted during 20th-21st February, 2015.

The department has academic linkage with IIT, Mumbai, to conduct FOSS Spoken Tutorial and also the Academic Alliance with CSI and EMC2. We are initiating the process of opening student chapter of IEEE this year.

The continuous efforts of a dedicated and well qualified team of 10 faculty members make this one of the most vibrant departments in the institution which has been securing at least one University ranks without fail every year from the year 2009. This year we are excited to receive three university ranks.

Intra and Inter-Collegiate Fests are conducted every year as a part of experiential learning. Industrial visits are also arranged every year. Last academic year, our students participated in twelve Inter-collegiate IT Fests at National, State level competitions and bagged seven Championship Trophies and one Runners-up Trophy.

The value added programmes and certificate programmes like Dot Net, Web Designing, Soft Skills and J2EE, are conducted to enrich the students' knowledge in par with the industry requirement. In this academic year students have been placed and got internship in various leading IT companies.

Prof. R. Kumar
Head, Deptartment of MCA

Industry Mentorship

Department of Computer Science always thrives to organize programmes that will bridge the industry- academic gap. Industry mentorship programme is one such activity organized by the department and Speed- Up training programme is an exclusive venture to have programmes with one of the IT world tycoons – EMC2. On 11/12/2014 the computer department of the (UG) and (PG) conducted the Speed up an interaction- cum- mentorship programme between the students of the computer department and with the employees of EMC2 Software and Services. The manifestation of Mr. Chadhrasekar, Vice President Global Service EMC2 beautify the function. Mr.Perumal managing director of EMC2 shared his personal experience while addressing the spectators. It was heart touching and motivational words for all of them who were seated in the auditorium. This was folowed by EMC2 team's skit which provided self-motivational message for Jayantians. The foremost feature of the function was the presence of more than 100 employees of EMC2. They were the mentors for the students and the best part was, they were seated along with the students. After the formal function students accompanied along with their mentors and was send to individual venues. The MCA students are mapped with senior level employees (vice presidents and the project managers). The main point which was told from our mentor was for any software students Database, Networks, Data Structure are the three main subjects to be known so he told us to have proper basics in these subjects for any domain that we select in the future in the company.

Manoeuvre

Manoeuvre is the intra-college fest conducted by the MCA department opens an arena of opportunities for the students to hone their creativity, team work and leadership skills students. The final year students take lead to conduct the fest and the first and second years compete with true sportsman spirit.

This academic year Manoeuvre was held in the month of September with Prof. Jyothi Manoj as staff coordinator and Mr. Baby K Jojo and Ms. Alvi Anto of final year MCA as student coordinators. The junior batches of MCA were dividfed into 12 different groups.

12 events were charted out, the prelims started on 3rd Sept 2014 and various events were held between 4th – 11th September 2014. Promotions were held on 11th Sept 2014 in PG Quadrangle, where Fr. Augustine George, Vice Principal was present along with the faculty members and students of MCA dept.

The formal inauguration was held on 12thSept 2014 in MCA Conference Hall at 9.30 AM. Mr. Mandar Chitale, Global Head, Customer Lab & Partner Technical Programs, Office of Customer Programs, Hewlett Packard, India Software Operations Pvt. Ltd was the chief guest for the session. Rev. Fr. Augustine George in his address stressed on the need of the students to keep themselves updated with day to- day changes which may be called revolution itself, which was followed by the inaugural address by Mr. Chitale.

The valedictory ceremony started at 4.30. Prof. R Kumar Head of MCA Dept. felicitated the students for the well-organized conduct of the fest. The participants and winners were appreciated.

Arun Kumar (III SEM) was adorned the title of "Best Manager".

Stat of Manoeuvre 2014 was shared by two student of III SEM – Ganesh R and Salem Matloob.

The Runners up position was also shared by two groups- Attrezi and Netzwerk with score of 49 points. The Overall Champions group Almacen scored 58 points

Research Colloquium

The seventh session of research colloquium of Computer Science Department was held on 25th July 2014. Dr. Shantanu Godbole, Senior Researcher and Manager - Cognitive Text Analytics, IBM Research – India was the resource person for the session.

Dr. Godbole started the session with a presentation of the advancements in Web Mining, Data Mining and Analytics with special emphasis on the application and advancements done by IBM. He highlighted the masterpiece assignments carried out by IBM like, the supercomputer that defeated Gary Casparov in chess and the super computer that challenged the famous international quiz event- Jeopardy and also the major assignments taken up currently by IBM.

He suggested I- CARE as an apt platform which is an IBM initiative to promote research. He also suggested various links, professional groups on net and websites like CODS, KDD etc for the faculty research enhancement.

The presentation was followed by an interactive session were he addressed to questions related to Artificial Intelligence, Web Mining etc. To a query on 'How to make academic research more effective and innovative useful for industry' his response was to start identify an area of interest, review literature and later on either advance from where others have stopped to improve the existing situation or else, find altogether a new problem and find one's own way to resolve the research issue.

Software Development Cell

One of the best practices of the department which makes it unique is the activities of the Software Development Cell. It is a joint venture from the faculty and students of the department to meet the various IT enabled service requirements for the campus. This helps the students of the department to get an exposure to the software development cycle practices adopted in the industry and also provides a effective support and enhancement options for the delivered product within the campus. This semester initiatives are:

- Website of BM School officially inaugurated at the inauguration gathering at BM School campus.
- FACILE: An in house exam automation package for conduct and marks capture of valued scripts

STUDENTS' ACHIEVEMENTS

- Ganesh R and Arun Kumar of III Sem MCA presented a paper on "Hi-Tech Car Systems" on 16/ 09/ 14 at The National Level Technical Symposium "Anvaya '14" conducted by Ethiraj College for Women, Chennai.

- Ganesh R and Arun Kumar of III Sem MCA presented a paper on "Wireless Tracking System in automobiles" on 17/ 10/ 14 the national level IT Fest "Ignite 2k15", conducted by Marian college, Kuttikanam Kerala

The students of MCA department has uphold the tradition of bringing in laurels to the college, by winning Overall Titles in 3 of the 5 fests they participated during this semester and winning many prizes in the other two fests.

Sl.	Date	Title of Fest	Organizers / Venue
1.	16 Aug 14	Asthra (Overall Winners)	KLE College, Bangalore
2.	16 Sep 14	Anvaya	Ethiraj College, Chennai
3.	17 Oct 14	Ignite (Overall Winners)	Marian College, Kuttikanam, Kerala
4.	28 Nov 14	Sursangram	Surana College, Bangalore
5.	26 Sep 14	Joshiana	St. Joseph Engineering College, Mangalore

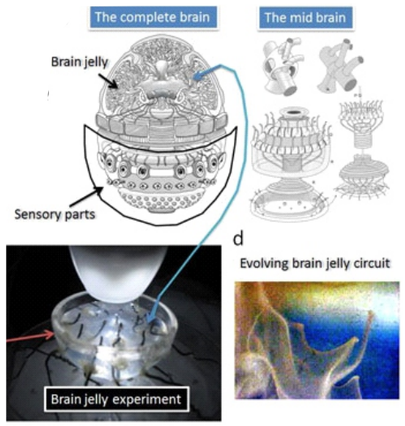
Nanowerk Spotlight

Design and construction of an organic, brain-like computer

Nanowerk Spotlight is the concept of a full-fledged massively parallel organic computer at the Nano scale that uses extremely low power

"Will brain like evolutionary circuit lead to intelligent computers ?"

A process of circuit evolution similar to the human brain in an organic molecular layer. This was the first time that such a brain-like 'evolutionary' circuit had been realized. The human brain model is introduced the concept of a new class of computer which does not use any circuit or logic gate. Over the past decades, digital computers have consistently increased in speed and complexity . Currently the fastest supercomputer in the world, can execute a blistering 33.86



petaFLOPS, or 33.86 quadrillion floating point operations per second. Nevertheless, these machines are limited by their reliance on sequential processing of instructions; i.e. no matter how fast they are, they still process only one bit at a time. By contrast, individual neurons in our brain are very slow: they fire at only about 1000 times per second; however, since they are operating in a massively parallel way, with millions of neurons working collectively, they are able to complete certain tasks more efficiently than even the fastest supercomputer. Another important distinction of our brain is that, during computing, information processing circuits evolve continuously to solve complex problems.

In Information Design and Construction of a Brain-Like Computer: A New Class of Frequency-Fractal Computing Using Wireless Communication in a Supramolecular Organic, Inorganic System . The fundamental computing principle of a frequency fractal brain like computer. Our artificial brain-building differs from all others in the world for several reasons,

✍We do not use logic gate based computing within the framework of Turing, our decision-making protocol is not a logical reduction of decision rather projection of frequency fractal operations in a real space, it is an engineering perspective of Gödel's incompleteness theorem.

✍We do not need to write any software, the argument and basic phase transition for decision-making, 'if-then' arguments and the transformation of one set of arguments into another self-assemble and expand spontaneously, the system holds an astronomically large number of 'if' arguments and its associative 'then' situations.

✍We use 'spontaneous reply back', via wireless communication using a unique resonance band coupling mode, not conventional antenna-receiver model, since fractal based non-radiative power management is used, the power expense is negligible.

✍We have carried out our own single DNA, single protein molecule and single brain microtubule neurophysiological study to develop our own Human brain model. The kind of CMOS based integrated chip that forms the core of existing supercomputers will not be used in this kind of computer. The term brain jelly to describe the purely organic computing architecture. The first step of constructing the brain jelly is to construct a protein-like molecule which – if triggered by an electromagnetic signal – starts self-assembly.

G Prathap
Faculty, Department of Computer Science
Kristu Jayanti College, Autonomus

Extension activity

Gramasamvedita

A two day Rural Exposure Program "Gramasamveditha – Ganakajnana Camp" was organized on 18-19 September 2014, at Manchenahalli, Chikkaballapur District, Karnataka with the help of NSS department of the college. The primary motive of this program was to make social awareness among the students and to give training to become more socially responsible citizens. This visit helped the students in matters to understand the living conditions of the village people, to study computer literacy level of the people in that locality, and to get a feel of their life situations.

Management sponsored a computers to the school students and planning to make more investment to improve computer literacy among the village people as part of national policy declared by the Prime Minister. Along with this the computer lab in the school was renovated. An evaluation session with our Head of the Department, Prof. R. Kumar and other staff members was also scheduled.

Bloodborne

Bloodborne is an upcoming video game being developed and published by Sony Computer Entertainment for PlayStation 4. It is being directed by Demon's Souls and DarkSouls director Hidetaka Miyazaki. The game was announced at Sony's Electronic Entertainment Expo 2014 media conference on June 9, 2014. The game is set to release in Japan on February 5 2015 and in North America and Europe on February 6, 2015.

Despite featuring similar action RPG elements to Demon's Souls and Dark Souls there are some major differences in the overall gameplay of Bloodborne. Battle has a much faster pace and requires more of an attacking approach in order for players to survive deeper crowds of enemies. The player is also much more active and is even able to perform sweeping dashes around enemies while locked on. The new risk vs return style of gameplay is highlighted through Bloodborne's health regain system which allows players within a minor break of time to recover portions of lost health by striking back at the player's attacker.

The game takes place in an abandoned city of Yharnam which is held to house a strong medical treatment. Over the years many travelers make journeys to the city looking for the medicine to cure their sicknesses. The player takes the role as one of these travelers. Upon arriving in Yharnam however, it is discovered that the city is afflicted with a common illness that has made most of its citizens into cruel mortals. The player must route the streets of Yharnam and overcome its brutally unbalanced people and shocking monsters in order to survive. While protections are not available in Bloodborne the player can instead use a weapon in their left hand. That can be used to stun enemies and can be followed up with a critical attack from the player's weapon. Its initial state can be used to quickly report enemies in restricted areas. But when transformed into its secondary state it becomes a stretched blade more suitable for crowd control.

Screenshots of the game were leaked on the internet weeks before the official disclose under the title of Project Beast. Many believed at the time that the leak could be connected to Demon's Souls. However, director Hidetaka Miyazaki has since stated that Bloodborne was never considered to be Demon's Souls II due to Sony Computer Entertainment wanting a new IP for the PlayStation 4.

Hebin Jose C
2012 MCA Batch

TIME LAPSE VIDEO WITH INSTAGRAM HYPERLAPSE

Hyperlapse from Instagram is a new app to capture high-quality time lapse videos even while in motion. Apple has released this new app for high quality videography.

Hyperlapse is based on a methodology called hyperlapsing (stop-motion time-lapse) used in multimedia to string together a collection of photographs or video frames in order to produce a cinematic experience. The algorithm used in hyperlapse is image stabilization algorithm. The stabilization system works in three modules: motion estimation, detection of unwanted movements and compensation. Motion estimation is done evaluating the match in a search area of subparts of image. Image subparts can cover the entire frame as in or can cover only a subpart. Digital Image Stabilization achieves the correction of unwanted movements in a video sequence through elaborations on digital data.

The algorithm in hyperlapse is basically designed so that it removes the shakiness from the video. The gyroscope samples and generated frames are fed into the stabilizer to obtain a new set of camera orientations as output (which has all unwanted bumps removed). Hyperlapse then uses a filtering pipeline which works upon each individual frames along with these new orientations to generate the final jitter free output. Earlier creation of such videos required holding your phone or camera still, but with the help of this app the users can create time-lapse videos with the help the back –facing camera of their iPhone. Because of the stabilization feature the captured video doesn't appear jittery or shaky when others view it. It can be downloaded from the Apple app store. This app allows users to record videos from their iPhones and then a user can manipulate the speed by either speeding up or slowing down the footage .The outcome of the videos that have been captured can then be added to the camera roll of the iPhone which can be shared on Instagram and Facebook. Hyperlapse app is designed to be user-friendly and meets

the user's requirements. It doesn't require any account creation on Instagram or Facebook. The preferred play back speed is be between 1x-12x. However this app still lacks the ability for onboard flash for nighttime videos, sound recording or shooting and editing multiple videos together into one

Sandhya Soman
Faculty, Dept of Comp. Science

WebRTC

"Technology is a word that describes something that doesn't work yet."

Web RTC is a new technology where audio,video and datasharing takes place between different clients. WebRTC provides this teleconferencing without the need of the helper applications such as the plugins or third party software.

What is Web RTC all about?

It solves the incompatibilities of real time communication. The incompatibilities include-if a user wants to make a video call or an audio call he has to download a proprietary software which takes a lot of time and thereby the user would have to go through a lot of installation process. But now with the emergence of Web RTC, the browser contains all the capabilities that supports real time communication. The Web RTC components are accessed using the JAVA API's. They include-

1.Network stream API: It represents an audio or video datastream.

2.Peer connection API: It allows browser-browser communication

3.Data Channel API :It allows other types of communication such as real time gaming, chating, file transfer etc.,

The Web RTC applications needs to do several other things like

- Audio or video streaming
- To get network information such as IP addresses and ports and exchange it with their peers to enable connection.
- To report errors and to start and close the sessions
- To exchange the information regarding media and client capability such as resolution and codecs.

The Web RTC is a collection of three API'S

1. getUserMedia
2. RTCPeerConnection
3. RTC DataChannel

These API'S are built inside firefox and chrome.

getUserMedia :

navigator.getUserMedia() is a command that allows the browsers to easily capture the data and transmit it to the other browsers.

RTCPeerConnection API

It allows users to find each other across the internet. It utilizes a signalling mechanism that is not built into the WebRTC API. They use sophisticated architectures that allow WebRTC packets to traverse NATs, firewalls, and other implementations that might erroneously filter them.

Example :Skype is the best example for peer-peer communication with custom signalling.

RTC Data Channel :

It enables the bidirectional exchange of data between peers.Once the RTCPeerConnection is established ,connected peers can open one or more channels to exchange text or binary data.

SCREENSHARING

"Screen sharing" is a concept OF Web RTC(Real Time Communications).It Is all about the way a user shares his desktop or browser screens to other users.Browsers such as Internet explorer and Safari doesnot support this concept,but Chrome supports screensharing.

Follow the below steps-

- Type chrome://flags in the address bar
- You will find a setting like "Enable screen capture support in getUserMedia()"

- Click the enable button
- Restart your browser.

Webapps like same.io and talky.io allows a user to share the screens.By allowing your chrome browser to access your web camera and microphone and there by clicking on the "Share my Screen" button you can share your screens to other users.

Once you hit that "Share my screen "button you will be provided with a unique web url and if anyone gets to know this unqiue web url they can access your screen through the chrome browser.

The other webapp "talky.io" allows private sessions wherein a user can protect his screens using a password.

"Appear.in" is a web app for video meetings that allows the user to share the desktop screen to other participants.

A tech savvy guy by name Rafael Weinstein proposed a technique which uses Mutation observers and a websocket.

Let's see how this works-

- The presenter shares his screen to the viewer using a websocket
- As the user performs any scroll operation the observer sends the changes and reports back to the viewer using Rafael mutation summary library.

Another method on how screensharing is done is-

- Rewrite all the pages on the URL to absolute to prevent static images and CSS elements from broken links
- Clone the page's document
- Make the clone readonly,hidden and non-selectable and prevent scrolling.
- Capture the current position of the screen and add them as duplicate
- Create a new BLOB page as duplicate.

"All this modern technology just makes people try to do everything at once."

Mrs. Diana Susan
Faculty, Dept. of Computer Science
Kristu Jayanti College, Autonomous

BIG DATA

A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK

Definition

A collection of large and complex data sets which are difficult to process using common database management tools or traditional data processing applications.

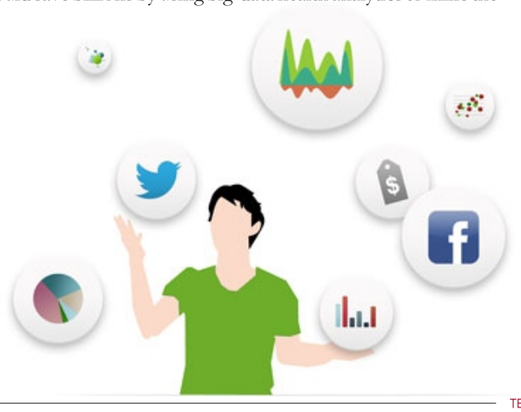
How big will the Data be?

Big changes in the recent technology and more devices are becoming part of our everyday lives. A decade ago, big data was measures. A decade ago, big data was measured in terabytes (or 1000 to the fourth power in the measure International system of units) and today the measure has reaches petabytes, or 1000 times that size. Soon big data will likely mean exabytes- or 1 million terabytes. All of the facts, figures, files and records making up this data will be up for analysis; with the hope that the results will provide insight into the world we live in and will help to improve it. Many industries are working not only to advance technologies that support and make sense of the growing mountains of data, but also to ensure that the information remains secure.it includes developing ways to increase storage capacity for databases, supporting IT infrastructures for handling an ever-increasing data load, and developing standards for the field.

Recent applications

Better Health care

World Health Organization (WHO) reports "All countries can do something-many of them a great deal- to improve the efficiency of their health systems". It's estimated that the health-care industry could save billions by using big-data health analytics to mine the treasure trove of information in electronic health records, insurance claims, prescription orders, clinical studies, government reports, and laboratory results. Analytics systematically review clinical data so that treatment decisions could be based on the best available data instead of on physicians' judgment alone. According to Johnson and the Cisco researchers, with the help of big data, more personalized medicine that uses patient-specific data, including genomics, will be the future of patient care. Integrating data from various sources can build predictive models that can lower overall cost and improve quality of care significantly. New data sources and analytics technologies are expected to emerge in the near future that will change the way medicine is practiced."



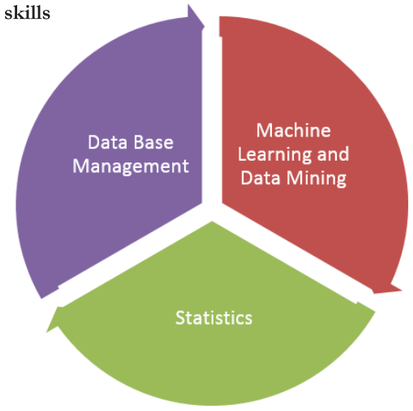
Crime Prevention

Big-data programs have proven best at predicting street crimes, such as auto thefts and homicides during the commission of a felony, as well as street riots and acts of terrorism. The biggest obstacle to using big data in predicting criminal activity is that programmers and law enforcement are not joining forces. Another challenge is to determine what to do once the data indicate that someone might be up to no good.

Job in Big Data

A recent study by SAS Institute, a business analytics company, predicted that the number of employees needed to handle big-data tasks will grow by more than 240 percent by 2017.

Trio of skills



Standards that support Big Data

The IEEE Standards Association has introduced a number of standards related to big-data applications. They are as follows:

- IEEE 2200-2012 - "IEEE Standard Protocol for Stream Management in Media Client Devices"
- IEEE 42010-2011 – "ISO/IEC/IEEE Systems and Software Engineering—Architecture Description"
- IEEE 1808-2011 - "IEEE Guide for Collecting and Managing Transmission Line Inspection and Maintenance Data"
- IEEE 1636-2009 - "IEEE Standard for Software Interface for Maintenance Information Collection and Analysis (SIMICA)"
- IEEE P2302 - "IEEE Standard for Intercloud Interoperability and Federation (SIIF)"
- IEEE P2413 - "IEEE Standard for an Architectural Framework for the Internet of Things (IoT)"
- IEEE P3006.8 - "IEEE Recommended Practice for Analyzing Reliability Data for Equipment Used in Industrial and Commercial Power Systems"

Dr. Ambika P
Faculty Member, Department of MCA
Kristu Jayanti College, Autonomous