

Bengaluru

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DEPARTMENT OF COMPUTER SCIENCE (PG)

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CHIEF EDITOR: REV. FR. JOSEKUTTY P.D, PRINCIPAL | REV. FR. AUGUSTINE GEORGE, VICE PRINCIPAL | DR. R. KUMAR, HOD

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Ms. BANUSHREE IST RANK



MEJOBITH M BASHEER 2nd RANK

# Student Achievement



Mr. JIRAN KURIAN 3rd Sem MCA

Silver Medal (Second Prize ) 10m Rifle Peep Sight Men Bangalore University Inter Collegiate Shooting Competition 2018 - 2019

# Modern Trends in Business **Analytics and IT**

#### Dr. Madhan Kumar Srinivasan

Associate Vice President, Accenture Innovation Center for Analytics, Accenture Solutions Ltd., Bangalore

Advisory Board Member, Cambridge Scholars Publishing, UK Founder Member, Cloud Computing Innovation Council of India (CCICI)



At the root of what's transforming today's business designs, industries, markets and organization is the fading of boundaries between the physical and virtual worlds. Digital business integrates these worlds through emerging and strategic technologies and entirely new business models are created.

#### MODERN DATA ANALYTICS TRENDS

- \* Deep Neural Networks: Some of the most powerful deep learning algorithms are Deep Neural Networks (DNNs), which are neural networks constructed from many layers (hence the term "deep") of alternating linear and nonlinear processing units.
- \* Journey Sciences: Journey Sciences is termed as the new frontier in big data analysis. A journey or a story is a series of related events of a customer or patient, or employee or a machine.
- \* TensorFlow: TensorFlow is Google's open source machine learning and neural network library, and it underpins most if not all of Google's applied machine learning services.
- \* Scikit-learn: Scikits are Python-based scientific toolboxes built around SciPy, the Python library for scientific computing.
- \* Jupyter Notebooks: The Jupyter Notebook, originally called IPython Notebook, is an open-source web application that allows data scientists to create and share documents

#### MODERN IT TRENDS

- \* Intelligent Things: Intelligent things use AI and machine learning to interact in a more intelligent way with people and surroundings.
- \*Digital Twins: A digital twin is a digital representation of a real-world entity or system. In the context of IoT, digital twins are linked to real-world objects and offer information on the state of the counterparts.
- \* Cloud to the Edge: Edge computing describes a computing topology in which information processing and content collection and delivery are placed closer to the sources of this information.
- \* Immersive Experience/Augmented Reality: Augmented reality (AR), virtual reality (VR) and mixed reality are changing the way that people perceive and interact with the digital world.
- \* Blockchain: Blockchain is a shared, distributed, decentralized and tokenized ledger that removes business friction by being independent of individual applications or participants.

# The Quest for AR and AI Creativity

#### Bringing Digital Transformation to Education

Welcome to 21st century learning! Gone are the days when you missed a class in your school, it was difficult to catch up with the current lessons. With the advent of high speed and low-cost internet, technology has brought classroom into your living room.

It is now, time for action! We live in an era in which nearly everything around us is 'tech'. Right from shopping to farming, from cooking to cog- Pragyan Parimita Barik nitive learning, from our personal financial planning to healthcare name (Journalist and Technical any sector, technology has infiltrated every area of our daily lives.



Those sci-fi stories we used to watch in Hollywood movies are now not merely fantasies anymore. Today, we are talking about the talk of the town i.e. Artificial Intelligence. We will look at several instances where technology and education have been evolving together over the time.

While AI is bringing an inevitable and significant change in almost all fields, let's take a close look at how it's finding its way into the classroom, and beyond.

#### Here are some of the points we can ponder about:

\* Is your teaching about to be disrupted?

Certainly! However, in a good way for several reasons. At the advent of AI technology, several researchers, educators and schools started developing customised learning materials and educational content for their specific students to provide personalised tutoring.

\* A booster shot to both learning and teaching

There have been instances, when students either find subject extremely difficult to understand, or fail to understand it completely. Since the comprehension ability and learning needs of very student are different, there is a need for more intuitive curricula and teaching methods.

\* Education for all

Easy accessibility and financial affordability are two of the biggest challenges of traditional education system. With ridiculously expensive tuition fees for higher education along with the fierce competitiveness of job market out there, technological disruption is the only ray of hope for many ambitious students. Technologies like AR and VR or online learning like Small Private Online Courses (SPOCs) or Massive Open Online Course (MOOCs) offer effective alternatives to traditional teaching.

\* Standardisation of EdTech curriculum

Another important issue in learning is the lack of standardisation of teaching courses. In the race of being unique the current educational bodies have failed to define a standard curriculum. While it is easier to follow a structured and standardised curriculum, it also helps for a majority of students to become more organised and disciplined. Again, the use of tech in education is meaningless without a strong emphasis of learning and social and emotional well-being.

\* AI and blackboards go hand-in-hand

Even though implementing AI has gained momentum over time, it does not in any way diminish the role of a teacher in the classroom. Teachers continue to play the significant role facilitating how to build communication skills, learn team building, teach complex social interaction, self-awareness, empathy and many more skills.

\* Country's grand AI dreams

India's Silicon Valley, Bengaluru could be the best city to lead the AI revolution, as in its recent strategy paper on Artificial Intelligence, National Institution for Transforming India (NITI) Aayog called for special attention from policy makers to create a favourable AI ecosystem in India. NITI Aayog's partnership with Google will foster growth in AI, machine learning and mentoring startups.

Source: Blog it with Kudums

NUMBER NAGAR, EXPLORING THE WORLD AROUND WITH A "CURIOUS LEARNING LENS"

# Vice Principal's Message

### Fr. Augustine George, Vice Principal

Today the fourth Industrial revolution is transforming the global economy due to the tremendous growth in all industries including IT industries. Under the Industry 4.0 all the technologies are wrapped up in new packages through Analytics, Artificial Intelligence, Cognitive Technologies and Internet of Things (IoT) to give a new face to Physical and Digital Technologies. This revolution is embedding smart, connected technology not only within the organizations as well as in but also in our daily lives. One of the greatest promises of the Fourth Industrial Revolution is to improve the quality of life for the world's population and raise income levels. In this age of unprecedented global social and economic connectivity the revolution 4.0 is happening quickly, as a ripple effect nowand it is it's the responsibility of the higher educational institutions to also prepare the students wards for tomorrow to innovate and use facing the challenges in Smart and autonomous technologies. Indeed, one of the greatest promises of the Fourth Industrial Revolution is to improve the quality of life for the world's population and raise income levels. It is in the hands of every education institution of and develop leaders with the skills to manage organizations through these dramatic shifts. Our education and training systems are a step ahead to adapt to better prepare students for the flexibility and critical thinking skills that they will need in the future workplace.

The Department of Computer Science, Kristu Jayanti College aspire to enrich the learning experience of students by escalating to new way of teaching learnin methods that



amalgamate both formal and informal education. New kinds of online resources such as social networking sites, blogs, wikis, and virtual communities, have allowed people with common interests to meet, share ideas, and collaborate in innovative ways. The A culture of sharing and participation, augmented by interactive learning and use of online resources with a culture of participation has laid a successful foundation for the student future made this learning more interesting and attractive. Apart from the delivery of the curriculum through the novel teaching pedagogies, we engross them in social learning to augment and to sustain the technical skills of the students.

'Technobytes' the Biannual newsletter of the department brings to limelight the amazingastounding activities and meritorious achievements of students. It captures the glimpses of all academic, curricular and co-curricular activities, initiatives and achievements. I wish this endeavor a great success and I extremely appreciate untiring the remarkable efforts and creativity, of every creative mind behind it.

# Dean's Message

## Dr. Calistus Jude A.L. - Dean, Faculty of Sciences

To remain competitive in the 21st century, the global community is emphasizing creativity and innovativeness as main impetus in various sectors. Through creativity and innovation comes uniqueness. There is a great demand for individuals who can think creatively and be innovative. Innovativeness is fundamental to Computer Science and the field itself makes it simple to be inventive. Computer Science is a standout amongst the most dynamic fields, where new learning, new advancements, and new speculations constantly rise. In addition, creativity is a vital issue for the future of new innovation frameworks. At the Department of Computer Science, Kristu Jayanti College, there exists

three drivers for innovativeness: the students with inspiration and interest, the environment and the different courses and activities.



Technobytes expects to enlighten the different activities at the Department. From displaying talent on various arenas to voicing out suppositions on current patterns, this issue of Technobytes is an impression of the strong feeling of inventiveness among the scholarly crew of the Dept. of Computer Science. Congratulations to the team which has brought out this issue.

# Department at a Glance

#### Dr. R. Kumar

Head, Dept. of Computer Science (PG)

the objective of imparting Personality workforce. It is a three year Communication designed lem solving skills which are ences and its essential pre-requisites for a included in IEEE Xplore, IEEE

The Department Computer successful software professionals. Student Branch of our offers two The course structure and contents are college under Bangalore programmes Master of Com- regularly updated as per the latest Section conducted workputer Applications (MCA) requirement. The learning environ- shops and tech-talks. Computer ment is intense and stimulating. The National Level Workshop impart conceptual and techni- forcement modules. Experts from GIC, AKASHVANIdesign and implementation this semester and won overalls. tencies, analytical and prob- section has sponsored the confer- in the department



Science. MCA programme regular academic programme is on Blockchain Development using Ethereum started in the year 2004 with enhanced by Seminars, Workshops, was conducted on 11th & 12th July 2018. Development Students Research Symposium was conducttechnical education to aspir- Programmes, Attitudinal Workshop, ed on 11.09.18 and the presented papers will ing youth to mold them into Soft Skills Training, Tech-Talk be published in the International Journal of competent Series, Student Seminar Series, Computer Applications (IJCA).Our departsessions, paper ment is the member of Global IT Commune to presentations and Aptitude Rein- (GIC). Our department in association with-

cal knowledge in the field of industry conduct the sessions on a @2030 - Top TECHNOLOGY PREDICcomputer applications and to continuing basis. The students have TIONS FOR NEXT DECADE - confernurture analytical, logical, participated in inter-collegiate fest in ence will be held on September 29, 2018. More than 200 IT professionals are expectskills for Industrial, Academ- The sixth edition of ICCTAC- Inter- ed to attend the conference. Faculty memic, Research and academia national conference on Current bers of our department acted as resource and industry The autonomous trends in Advanced Computing person for the in-house workshops and also curriculum is designed to conducted during 01st - 02nd in the workshop conducted in other hone strong software compe- February 2018. IEEE Bangalore colleges. At present there are 127 students

# The Era of Quantum Computing in AI

Prof. Aruna Devi K

discovery, the optimization of size grows. accessible, we need to reimagine. What is strange about relativity is

With great advancements in Math- information processing and the the concept that ematics, Materials Science, and machines that do itStill there are time and space are Computer science the Quantum problems that today's systems will interconnected, computing theory is transformed never be able to solve. For chal- when to reality. Today, real quantum lenges above a certain size and sense tells us they computers can be accessed complexity, there is a lack of should act indepethroughs in many disciplines, one's computational power also

proceedings were

tum computers widely useable and are simple but counter-intuitive. time.



through the cloud and thousands enough computational power on ndently. If you begin to explain relativity of people have used them to learn. Earth to tackle them. To stand a to a person new to the idea by jumping conduct research, and solve the chance at solving some of these straight to time and space, you will likely real time technical issues. Quan- complex problems, a new kind of get a blank stare in return. A better way tum computers will provide break- computing is to be introduced that to start is as Einstein did, by explaining that relativity follows from a simple including materials and drug scales exponentially as the system physical principle: the speed of light is the same for all uniformly moving complex systems, and artificial Quantum physics is hard because, observers. This one modest idea then intelligence. To realize those like Einstein's theory of relativity, becomes extremely profound and leads, breakthroughs, and to make quan- it requires internalizing ideas that by inexorable logic, to Einsteinian space-

## Continue...

The power of the quantum computer, meanwhile, lies in its much richer repertoire of states. A quantum computer also has bits - but instead of 0 and 1, its quantum bits, or qubits, can represent a 0, 1, or linear combination of both, which is a property known as superposition. A quantum computer takes advantage of a special kind of superposition that allows for exponentially many logical states at once, all the states from |00...0>to |11...1>.

This is a powerful feat, and no classical computer can achieve it. A working quantum computer could factor numbers in a day that would take a classical computer millions of years. IBM started using it in computation, in order to perform some well-known algorithms like Grover's algorithm, Deutsch-Jozsa algorithm, Learning parity with noise, Phase estimation algorithm and Shor's Algorithm. The Quantum computing will disrupt the path to AI and deep learning. There is a lot of ongoing research in Quantum AI with giant techs and companies like Rigetti introducing full stack QC. It has almost garnered the place of a primary research area for NASA and IBM and Google set up Quantum Artificial Intelligence Labs.

According to QC Ware, the standard feedforward, convolutional, and recurrent neural networks have seen widespread application in the areas of ML over the last five years. However, a key obstacle is in seeing how quantum computers can either accelerate the training or inference stages of neural networks and/or be used to improve accuracy. The Quantum Convolutional Neural Nets (QCNN) and Quantum Reinforcement Neural Network (QRNN) algorithms are trained through gradient descent to carry out generalisation of classical machine learning problems. Besides fueling current ML techniques, QC is expected to pave the way for new ML models in future.

#### International Conference TEBE on Trends in Advanced Computing ICCTAC 2018

was conducted on 1st & 2nd while being innovative. Mr. Steve Coman, Director-HR Grant Thornton shared services center as Guest of Honor.

The chief guest in his inaugural address spoke about the prominence of the Information rather being anxious about the breadth of Computer Science.



The 6th edition of the Interna- UK in global power housing tional Conference on Current systems. He also spoke about the Trends in Advanced Computing maintenance of ethical standards

February 2018. The auspicious \* The keynote session was based on inaugural function held at 10.00 the topic Power Saving in mobile AM on 1st February morning Hot Spots- and Base Stations. Dr. had Dr. Debabrata Das, Chair Debabrata Das spoke on Compo-IEEE Bangalore, Professor and nent, Link and Network, with HP chair, IIIT-B, Bangalore and respect to research in three levels as and IOT.

> \* The workshop session on "Data Visualization using Tableau Soft-Kalyan, Big Data Lead/Architect ing on the current trends.

the research scholars was the the conference was handled by feast during the two days on vari- Embedded IoT Systems. ous Advanced Computing topics



such as Natural Language Processing, he spoke on cellular connectivity Ryu Controller and Medical Image Segmentation.

\* The third technical session "Stacked Deep Auto-encoder" had ware" was held by Mr. Raghu Dr. Saroj K Meher, Associate Professor, Indian Statistical Institute, Bangalore as Data Services Boeing. . It was an the resource person. The session led us enriching practical experience in through the concepts on Artificial Intelthe domain of Advanced Comput- ligence Multiview and Mirror -Net-

\* Technical paper presentations by \* The concluding technical session of thought provoking session for the Gautham, on "Embedded IoT". He audience and they had a knowledge highlighted on the architecture of

# **MAJOR EVENTS**

# Vichaarmanthan

The 37<sup>th</sup> Edition of Vichaarmanthan - An Interaction with Global & Indian Visionaries organized on 26<sup>th</sup>July 2018 at Kristu Jayanti College, for the MBA, MCA, BCA and PGDM students had Shri. Rajeev Chawla IAS, Additional Chief Secretary, e-Governance, Govt. of Karnataka interacted with the students.Shri. Rajeev Chawla initiated his speech with the inspiring words – "You must be the change you wish to see in the world". Sir commented that Karnataka has been in the forefront of Digital revolution with Bhoomi project involving computerization of Land records in



2005. He also mentioned that Karnataka continues to lead in implementation of Digital technologies by successful implementation of e-Governance applications for Commercial Taxes, Urban Citizen Service



Centers - Bangalore One & Karnataka One and Khajane for treasury automation.

With the great improvement in e-Governance services the government is able to process all the transactions like salary payment, tracking the BMTC bus, FIR status, Land ownership etc., quickly and effectively. The participants were advised to use the services provided by the Government like Digilocker and Mobile One. Sir strongly insisted that e-Governance greatly improved the reachability of all the government services to the public with least corruption rate.

# NATIONAL WORKSHOP Blockchain Development using Ethereum

Department of Computer Science (PG) organized a two day National Level Workshop on Blockchain Development using Ethereum on July 11 – 12, 2018. The inaugural function held at 9:30 AM on 11<sup>th</sup> July had Dr. Madhan Kumar Srinivasan, Associate Vice President, Accenture Solutions Ltd, Bangalore as the chief guest.

The objective of Blockchain development using Ethereum workshop is to provide a platform for the participants to engage in knowledge transfer, discussion and networking also about the Ethereum Ecosystem and its differences from its



rich cousin Bitcoin. The panel discussion was to deliver the strategies and integration of the Blockchain technology by four enthusiastic and eminent personalities –

- Dr. Shankar Ramamoorthy Harman Connected Services,
- Mr. T.V. Ramakrishnan Chief Product Owner, Digital Core Banking SAP Labs,
- Mr. Jeeva Chelladurai Entrepreneur and Technical Author
- Dr. Sved Mohammed Buhari, Professor, UAE.

The hands-on session on the second day was handled by Mr. Ganesh Samarthyam, Co-founder, CodeOps Technologies. The session aided the students to develop their own blocks from the scratch in order to understand the business of Initial Coin Offering (ICO), which included with understanding of Hashing (in Python) and creation of Contracts and Ether multiple accounts using Meta Mask application. The workshop resumed with understanding of Tokens and their Contract along with deploying them using the web application Remix IDE which resulted in creation and transfer among the multiple accounts around the world.

## **International Lecture Series**

## "Stepping Stones for Quality Research"

The Department of Computer Science (PG) conducted International Lecture Series on 30th July, 2018 about "Stepping Stones for Quality Research" had Dr. Seyed Mohamed Buhari, Faculty of Computing & IT, King Abdulaziz University, Saudi Arabia was the resource person. The objective of the Lecture was to provide knowledge about the structure and process of research, and the way in which information was analyzed, which helped the participants to learn and articulate various this like how to identify the problem. It also helped in enhancing the knowledge base of using "Zotero" software to import related papers and add citation and bibliography easily to our research paper. First session was followed on the introduction to research. The steps for conducting a effective research were discussed and they are,

Gartner hype cycle

- Identifying the problem or area of interest.
- · Research groups
- · H-index and citations.



- · Exploring with Zotero.
- Discussion about the content of the paper.

Collecting different paper using

a survey paper on the interesing topic. After learning the process required to conduct research, participants started exploring about collecting different papers using survey paper of the interested topic. Later in the questionnaire session Sir explained about the plagiarism check and also the vocabulary on how to write a good research paper.

The best site to check vocabulary was the Element of the style-cheat sheet which improves the quality of writing a research paper. Concluding the seminar, the content deliberated on various aspects that are necessary to be analyzed before even finding a good topic and efficiently. implement workshop helped the participants who are interested in writing research papers paved a way for researchers to learn, explore and adapt to various new techniques and also to achieve optimization in their proceedings and research activities.



## **Alumni Interaction**

## Tech Talk Series - "E - Workforce Management - Planning & Scheduling"

The Alumni interaction with the students bridges the gap between the Course Contents and Industry standards. The aim of this session is to have an interactive session with alumni about the Career opportunities for the MCA Students in Networking Domain of IT industry, preparation for placements and other blooming trends. Ms. Sithara Kumaresh is an alumni of our department [Batch 2009-12]. She was the ranker holder in UG and PG. The alumni interaction session was held on 07<sup>th</sup> July, 2018 as Ms. Sithara Kumaresh started the session by speaking about the tools that she is using in Accenture such as WFM IEX, e-WFM etc. She empha



sized about the importance of workforce management and how it would effect in the growth of the company. She further explained about the importance of the e-WFM in an organization . She has given more in detail about the topics such as scheduling, Break spacing, Break Limit, Leave, OU at 100% and 92% (at 92% targets are achieved), Training, Seat planning and Deviation Plan.

# Al for Everyone

## Prof. Ayshwarya. B

Artificial intelligence has so far been for the most part the toy of enormous tech organizations like Amazon, Baidu, Google, and Microsoft, and also a few new companies. For some different organizations and parts of the economy, AI frameworks are excessively costly and excessively troublesome, making it impossible, making it impossible to actualize completely. What's the arrangement? Machine-learning mechanisms situated in the cloud are conveying AI to a far more extensive group of onlookers. Up until this point,



Amazon rules cloud AI with its AWS auxiliary. Google is testing that with TensorFlow, an open-source AI library that can be utilized to assemble another machine-learning programming. As of late Google declared Cloud AutoML, a suite of pre-prepared frameworks that could make AI less complex to utilize.

Microsoft, which has its own AI cloud stage, Azure, is collaborating with Amazon to offer Gluon, an open-source profound learning library. Gluon guessed make building neural nets—a key innovation in AI that roughly emulates how the human mind learns—as simple as building a smartphone application.

It is dubious which of these organizations will turn into the pioneer in offering AI cloud administrations. In any case, it is an enormous business open door for the victors. These items will be basic if the AI unrest will spread all the more comprehensively through various parts of the economy. As of now, AI is utilized generally in the tech business, where it has made efficiencies and created new items and administrations. However, numer ous different organizations and ventures have attempted to exploit the advances in man-made

brain power. Segments, for example medication, assembling, and vitality could likewise be changed in the event that they could actualize the innovation all the more completely, with a gigantic lift to financial efficiency. Most organizations, however, still don't have enough individuals who know how to



utilize cloud AI.So Amazon and Google are additionally setting up consultancy administrations. Once the cloud puts the innovation inside the range of nearly everybody, the genuine AI transformation can start.

# **Predicting Predictive Analytics**

## Prof. Dhanamalar. M

Predictive analytics is a canopy term used to depict the way toward applying different computational procedures with the target of making a few forecasts about the future in light of past information. This incorporates an assortment of procedures including data mining, modeling, pattern recognition, and even graph analytics.

The recent trends in Big Data have put more weight on predictive analytics to be more productive and vigorous. Curiously, this has prompted more database sellers fusing investigation into their list of capabilities, for instance, Oracle and IBM. This gives us all the more effortlessly open tools which empower us to perform analytics. This likewise implies we are probably going to wind up more precise in our estimations as we expand more information in making these estimations.

What is fascinating to see is that a procedure which was some time ago only held for Data Scientists is presently getting to be available to



everybody. Furthermore, we are seeing open source APIs even consolidate these highlights. Apache Tinkerpop's Graph Computer is an ideal case of something which can possibly perform the prescient examination.

We trust that, later on, we will keep on seeing a reception of these advances as request keeps on developing. We are especially intrigued to perceive how we will make these highlights more open and simple to work with.

#### Al could help to manage natural disasters

Residents are struggling with the aftermath of Hurricane Florence, a record-breaking storm that has hit the US east coast and led to at least 32 deaths, floods and damaged



deaths, floods and damaged SYED FAIZAN homes. Meanwhile, Typhoon 1st Sem MCA Mangkhut has been ravaging southern China. More than three million people were evacuated.In the last few years, AI has become ever more powerful. It can diagnose diseases, book restaurants, fake presidential speeches, and even compose hit music and produce trailers for horror movies. So in this new era of "Big Data" and "Artificial Intelligence," do we have new tools to protect our society and manage the damage of such storms?AI demonstrated a superior ability to understand certain situations in 2016, when the programme AlphaGo beat Lee Sedol, 18-time world champion, at the game Go, the most sophisticated game in history. But is this superior capability seen elsewhere, too? Could, for example, AI understand, predict and manage natural disasters – such as floods – better than humans can? A computer game and a flood are obviously two very different things. But AI is catching up humans in understanding "things." For example, researchers recently demonstrated that AI could help diagnose breast tumours from the medical imaging. And more preliminary research is showing that AI could definitely help us monitor floods and could perhaps even deliver more accurate early warning messages in the near future.

#### Augmented Reality in Education

The advancement of technology has been taking place from the beginning of human history and it has changed the way we live and communicate. The advancement in technologies has grown exceptionally in the 21st century. All the developed or developing technologies so far has made a lot of impact on the world. One of them is Augmented Reality.

The term Augmented Reality (AR) is used to describe a combination of technologies that enable real-time mixing of computer-generated content with live video display. Many people tend to confuse AR with VR(virtual Reality) but in reality they both are poles apart. AR is based on the technologies used in VR. Augmented Reality uses the existing real world environment and puts a virtual information on top of it to augment it i.e. enhance it whereas virtual reality includes a user working in a completely different environment, notably a virtual or imaginary one.

Many of the basic concepts of AR



have been NEHA ELIZABETH PRINCE used in m-1"Sem MCA oves and science fiction at least as far back as movies like The terminator (1984) and RoboCop (1987).Currently AR technology has evolved to the point where it can be applied to a much wider range of application domains, and education is an area where this technology could be especially valuable. There are many different ways in which a person can get educated. It can be through textbooks, teachers, computers or any other electronic devices. There are a lot of advantages of using AR in learning. It makes learning a lot more interactive. Students can easily understand and relate to the topics being delt as they experience it and see it for themselves.

#### GIT and GitHub

GIT is the most widely used VCS and is considered to be the best friend of any developer today. Whether it maybe version control, project management, team collaboration or open source development/contribution, GIT and GitHub has



Jiran Kurian 3<sup>rd</sup> Sem MCA

made our lives much more easier. Every good developer has an idea of how hard the life would have been without GIT and GitHub." Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. "GitHub is a web-based hosting service for version control using git. It is mostly used for computer code. It offers all of the distributed version control and source code management (SCM) functionality of Git as well as adding its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, and wikis for every project. GitHub is basically an online platform which provides many features. You can upload and manage your code here, if you have a team and you are working on a project, you can work together, you can make some open source contributions, or make your own open source projects/softwares, form your own tech community, or join an existing one, find other people's projects, follow the people you feel are sound in their domain and much more. "GitHub is a development platform inspired by the way you work. From open source to business, you can host and review code, manage projects, and build software alongside 28 million developers."

# **Student Research Symposium**

National Level Student Research Symposium was organized by Department of Computer Science (PG). Mr. Jeeva Chelladhurai (Founder, Comorin Consulting Services, Bengaluru) was the chief guest of the program. The first technical session was presented by Mr. Mustameer Khan (Product Manager, SAP, Bengaluru) with technology on warehouse automation done by Amazon, he also briefabout 'Go Game' which was an automated analysing game. The application analyse the game moves of international champion for 6 months during the game application defeated the champion by its own analysed automated moves. The second technical session was presented by Mr. Jeeva Chelladurai. He explained about docker technology. He also had shown practically how to run snippets to create a docker.

Paper presentation by research scholar and students was held and the session was chaired by Dr. Kumar R and Dr. Ambika. P.

# Seminar / Workshops / 3i

SI No	Date	Title of the event	Name of the Resource	
1	30.06.2018	3i on "Leadership in a Technology Oriented World"	Mr. Subrahmanian S V HR, OD & Leadership Consultant.	
2	21.07.2018	Tech Talk Series I on "Digital Analytics"	Mr. Cammillius Jayadev Project Manager, Nabler, Bangalore	
3	04.08.2018 Tech Talk Series II – "Mobile App Retargeting"		Ms. Ashvina Kumari. N, Executive Account Manager, Digital Operations, Revx Technolog Ltd	

# VINIMAY- Leadership Series

Vinimay is an interactive program organized by Department of Computer Science(PG), Kristu Jayanti College on 22nd July 2018 in SKE auditorium. The chief guest for this occasion is Dr. Madan Kumar Srinivasan, Associate Vice President of Big Data & Cloud Analytics, at Accenture Innovation Center for Analytics. The program started with an inaugural address introducing the Chief Guest. Then Dr. Madan took over the session. He started with the presentation titled "The Fire Within" which was a very interesting journey that he took over till the end of the session. The highlight of this program is Dr. Madan was more in an enthusiastic interaction and was very open to share about his life's ups and downs that he faced and how he overcame the situations. One such to be mentioned is about his English communication problem, his marriage/love life, his graduation periods, and his way towards the industry. Moving on he mentioned a lot of achievements that he got from the places that he had failed initially. Also all other achievements and targets that he ultimately was

aiming for. To end, he concluded by a very important note "Fire and Fear" were he thought us how to face them both effectively. To conclude in this program we got to know a lot more of Dr. Madan and all his interactive fun talks and inspiring notes would never drain of our memory.



# Experiential Learning

SI No	Date	Nature of the event	Venue	Name of the Student
01	11.05.2018 to 07.06.2018	Internship and Project on "Media Tracking System"	JUSCO, Jamshedpur	Rahul Dey - V Sem MCA
02	14.05.2018 to 15.06.2018	Internship	LTI, Chennai	Vidya K - V Sem MCA
03	06.07.2018	IBM Call for Code  Coding Challenge	NASSCOM 10K Startup Warehouse, Domlur, Bengaluru	Abel Sam – III Sem MCA     Tanmay Shinde – III Sem MCA     Vidhya Shree – III Sem MCA     Soumya Alex – III Sem MCA
04	14.07.2018	Workshop on "Deep Dive Into BLOCKCHAIN CONSENSUS Algorithm"	Hash Code Technologies, Bangalore	Sahil Khan – V Sem MCA     Nilesh Singh – V Sem MCA
05	21.07.2018	Workshop on "Machine Learing - A Fresh Approach using Julia"	Lucida Tech- nologies, Bangalore	Abhishek G – III Sem MCA     Suraj Kumar K - III Sem MCA     Vishnu Padmanabhan     III Sem MCA
06	28.07.2018	Hands on Session on "Games back-end from back-end using nodejs"	Dell EMC, Bangalore	Achuth P – III Sem MCA     Benedict Biju – III Sem MCA     Rashmi C – III Sem MCA     Sandhya S – III Sem MCA     Shilpa Anand – III Sem MCA     Shriishwaryaa – III Sem MCA     Sumathi M – III Sem MCA     Winston Shaji Jacob –     III Sem MCA

## Future of AI:2 ways it will impact our everyday life

#### 1. Automated Transportation

We're already seeing the beginnings of self-driving cars, though the vehicles are currently required to have a driver present at the wheel for safety. Despite these exciting developments, the technology isn't perfect yet, and it will take a while for public acceptance to bring automated cars into widespread use. Google began testing a self-driving car in 2012. Other transportation methods are closer to full automation, such as buses and trains.

#### Cyborg Technology

One of the main limitations of being human is simply our own bodies—and brains. In the future, we will be able to augment ourselves with computers and enhance many of our own natural abilities. AI will become useful for people with amputated limbs, as the brain will be able to communicate with a robotic limb to give the patient more control.



Sumati M. 3<sup>rd</sup> SEM MCA

# Your Brain is Password

Scientists have developed a security system that identifies a person by reading their brainwaves in response to a series of pictures - an advance that could better protect devices from hackers. Many smartphones include facial recognition, fingerprint scans and other biometric systems. However, the trouble with these easy-to-use tools is that once compromised they can not be reset. "You can't grow a new fingerprint or iris if that information is divulged," said Wenyao Xu, an assistant professor at the University at Buffalo (UB) in the US. However, this is not foolproof either – it is possible to forge such biometrics. Fingers can after all be chopped off and placed by impostors to gain fraudulent access. It has also



Sijoy S Samuel 1st Sem MCA

been shown that prints lifted from glass using cellophane tape can be used with gelatine to create fake prints. So there is a real need to come up with more advanced biometrics that are difficult or impossible to forge. And a promising alternative is the brain. Emerging biometric technology based on the electrical activity of the brain have indeed shown potential to be fraud resistant. Over the years, a number of research studies have found that "brainprints" (readings of how the brain reacts to certain words or tasks) are unique to individuals as each person's brain is wired to think differently. In fact, the brain can be used to identify someone from a pool of 102 users with more than 98% accuracy at the moment, which is very close to that of fingerprints (99.8% accuracy). More recently, this has been confirmed by functional magnetic resonance imaging (fMRI), which measures brain activity by tracking changes in blood flow. A study using fMRI data from the Human Connectome Project was able to recognise individuals with up to 99% accuracy when performing certain mental tasks such as relaxing, listening to a story, computing maths, looking at emotional faces or imagining moving parts of their body.

# "Lets Play Braingles"

#### Pre-requisites:

Requires internet to solve the given clues, requires thinking out of box.

Ceaser is looking for an interesting field to start his career, He finds a hidden box in the cupboard.......

Find what's the message in Ceaser's Box?

A phrase is being encoded in some way , figure out the logic and find the clue out!!!

M-13-H-8-370 (hint: Remove the unwanted Number hidden from the actual clue)

Find the clue from the logo of the following:

(hint: Each logo indicates an associated meaning that helps you to find the designated Answer)

Find what is GTH using the previous clues.









The following should be decrypted...

C J Y A B Y E A R (hint: A pattern must be found to arrange the actual clue)

Now suspect the story that is inlined from the clues which Ceaser wants to

Cyber Jaya is a Nalite-stan company associated with GTH (Global Technology Hub) which uses information fechnology, Big Data, Mobile sectors.

> EV AV C)

maswee from 5 jegets plage (ollowing) 4) C 1 X V B X E V B to find the cents

 GTH is the Global Technology Hub that indicates a Malaysian Industry.

2) Loges that indicate Big data, faltormation Security, Mobile Metworking and Bus-sectionously, which indicates that we are looking for something in technology.

all et Is.—ensewhed in radimack batterium sewanero of the political set of it. It has earned in testion (165) and aw feative arms after submitted on N. Nev series 8 bmm 51 guivourer yet os. 8 bmm 51 guivourer yet os. 8 30 52 HMs rag silv.

Answers: Ne.13-H-8-370 MH370 is a Malaysian flight No.

# **GALLERY**

# **Department Activities**



















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## **UPCOMING EVENTS**

Global IT Commune Conference (29/09/2018)

Shells-2K19- An Inter-Collegiate IT Fest (27/02/2019)

IEEE International Conference (ICCTAC 2K19) (24/01/2019)

> Faculty Development Programme on Natural Language Processing (25/4/2019 – 26/4/2019)

# FACULTY ACHIEVEMENT



Dr. Kumar R, Head, Department of Computer Science (PG)



Dr. Jyothi Manoj Associate Professor Department of Computer Science (PG)

Congratulations!!!
Awaraded Ph.D Degree

## **PLACEMENT**



Mr. Deepak dulal V Sem MCA

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