



# BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Avalahalli, Doddaballapur Main Road, Bengaluru - 560064

Joining the pieces back with a silver bullet  
"The Technology"

Department of MCA

## AGRATHA – MCA NEWSLETTER

August 2020 to January 2021



Vol. 8, Issue 1

Jnyaana-Vijnyaana-Ruupaayai Jnyaana-Muurte Namoh Namah |  
Naanaa-Shaastra-Svaruupaayai Naanaa-Ruupe Namoh Namah ||



**DEPARTMENT OF MCA**

**BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

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## Message from Principal

**Dr. Mohan Babu G.N.**  
Principal, BMSIT&M

It gives me immense pleasure to share my feelings with you on the occasion of the publication of the eighth volume's first issue of AGRATHA, a bi-annual newsletter of the Department of Master of Computer Applications.

Remember that, today, all engineering problems, whether with social or industrial relevance call for interdisciplinary approach and team work. Technical competence alone is inadequate. Hence, the staff and students of the department should not leave any stone unturned to develop both technical and team competencies and attain excellence in their endeavour.

A superb alignment is seen among the goals of the Management, faculty, staff members and students of BMSITM. Management has been very magnanimous to support all our endeavours to provide a wholesome personality to students, and equip them with skills at par with international standards. Anyway, I am sure that the students and staff of the department have made use of this opportunity to test and hone their intellectual skills to reach a wider readership. I congratulate the editorial team for having put their best to bring out this outstanding piece of work.



## Words from the Chief Editor



**Dr. Aparna K.**  
Associate Professor & Head

It is indeed a great honour to be the Chief Editor of the MCA newsletter AGRATHA and it gives me immense joy and satisfaction to launch this edition for the period August 2020 to January 2021. This newsletter is a snapshot of various activities and achievements of all those who are involved with Team MCA. Generally, we fail to appreciate the good deeds of many people and activities that happen around us as we are engaged in irrelevant talks and assumptions. It could all change if we just pause to think of what is our contribution to the society from which we have been gifted with this blessed life. I would like to add at this juncture that the Department of MCA, during the pandemic, in its effort to make the online teaching very effective, has procured digital teaching aids. This made the teaching-learning environment more interesting both for the faculty and students.

This newsletter will be a medium to provide proper acknowledgement and respect all of these efforts and its results and enable to bridge the gap between achievements and publicity. Activities published in the newsletter are sufficient to prove my claim that Team MCA is progressing at an exponential rate. All credit and thanks are to the dedicated faculty members and their team work.

Signing off with a quotation "If you want to go fast, walk alone, if you want to go far, walk together".



## **BMS Educational Institutions**



The year 1946 witnessed the dawn of the first private engineering college in the country, popularly known as BMS College of Engineering, established by late Sri. Bhusanayana Mukundadas Srinivasaiah (BMS). The founder Sri. B. M. Srinivasaiah was a philanthropist and a great visionary who realised the importance of technical education even before the country got independence. He was honoured by the Maharaja of Mysore, with the title “Dharma Prakasha” and “Rajakarya Prasaktha”.

B.M.S. Institute of Technology & Management is affiliated to VTU, Belagavi. As a part of one of the ten institutions under BMS Educational Trust being managed by a council of trustees appointed by our beloved Smt. Dr. B. S. Ragini Narayan, the successor of Late Sri. B.S. Narayan and also the donor trustee and Member Secretary of BMS Educational Trust. It is emerging as one of the finest technical institutions, providing high quality academic instruction and innovation.



## **BMS Institute of Technology & Management**



### **Vision**

*To emerge as one of the finest technical institutions of higher learning to develop professionals who are technically competent, ethical and environment friendly for betterment of the society*

### **Mission**

*Accomplish stimulating learning environment through high quality academic instruction, innovation and industry-institute interface*

BMS Institute of Technology & Management was established in the year 2002-03, is one of the ten educational institutions under the BMS Educational Trust recognized by AICTE, New-Delhi and affiliated to Visvesvaraya Technological University, Belgaum. The Institute offers 8 UG, 3 PG and 9 Research Programmes. As on 2020-21, approximately the number of faculty members with Ph.D. is 78, Ph.D. scholars is 88.

The Institute is located on an 18.5 acres campus in Avalahalli, Doddaballapur Main Road, Yelahanka, Bangalore-560064, with the salubrious climate of Bangalore and the serene greenery in the campus located away from the hustle and bustle of the city. The institution has grown in strength and is emerging as one of the best technical institutions in the country. Some of the companies with which the institute signed MOUs are KPIT, BOSCH, IBM and TEXAS Instruments.

BMSITM was honoured with Outstanding Engineering Institute-South by Vijayavani National Leadership Award.

BMSITM was honoured with Student Excellence award among private engineering institutes-South as per the analysis of Dataquest.



## Department of Master of Computer Applications

### Department Vision

To develop quality professionals in Computer Applications who can provide sustainable solutions to the societal and industrial needs

### Department Mission

Facilitate effective learning environment through quality education, state-of-the-art facilities, and orientation towards research and entrepreneurial skills

### **Programme Educational Objectives (PEOs)**

**PEO 1:** Develop innovative IT applications to meet industrial and societal needs.

**PEO 2:** Adapt themselves to the changing IT requirements through lifelong learning.

**PEO 3:** Exhibit leadership skills and advance in their chosen career.

### **Programme Outcomes (POs)**

- Apply knowledge of computing fundamentals, computing specialization, mathematics and domain knowledge to provide IT solutions.
- Identify, analyse and solve IT problems using fundamental principles of mathematics and computing sciences.
- Design, develop and evaluate software solutions to meet societal and environmental concerns.
- Conduct investigations of complex problems using research-based knowledge and methods to provide valid conclusions.
- Select and apply appropriate techniques and modern tools for complex computing activities.
- Understand professional ethics, cyber regulations and responsibilities.
- Involve in life-long learning for continual development as an IT professional.
- Apply and demonstrate computing and management principles to manage projects in multidisciplinary environments by involving in different roles.
- Comprehend and write effective reports and make quality presentations.
- Understand the impact of IT solutions on socio-environmental issues.
- Work collaboratively as a member or leader in multidisciplinary teams.
- Identify potential business opportunities and innovate to create value for the society and seize that opportunity.



## About the Department

**The Department of MCA is accredited by the National Board of Accreditation, New Delhi.**

The MCA program is intended to provide a modern industry-oriented education in applied computer science, thereby focusing on providing a sound theoretical background as well as good practical exposure to students in the relevant areas.

The MCA Department was established in the year 2003 with an approved intake of 60 students with an excellent Library and Laboratory facilities. It has 12 qualified, experienced and dedicated young teaching staff (05 Ph.D. holders and 07 are pursuing Ph.D.) and 2 technical staff members creating an amicable teaching and learning environment. The faculty members of the dept. have executed their responsibilities as coordinators/ members of the BOS/BOE under VTU, other universities and autonomous institutions as well as editorial board members / reviewers of international journals. The dept. has an aggregate of VTU examination result of nearly 95%, secured 11 VTU Ranks and placement of nearly 92% (with 87.19% for the year 2019-20) since its inception. The faculty members are involved in an array of research interests such as Wireless Networks (Cognitive, Ad-hoc and Sensor networks), Network security, Cloud Computing, E-Commerce, Data Science and Digital Image Processing among others. The Department of MCA is also recognized as VTU Research centre and several internal and external candidates are pursuing their Doctoral degree.

Department has organized series of Technical/Expert Talk, Workshops, Industrial Visits, Alumni Interaction, Parents Teachers Meeting, Project Based Learning Evaluation/Exhibition, and Technical Competitions to enrich the students from different perspectives and weekly counselling through effective proctoring system to support slow learners and boost quick learners. The department also dealt with the CoVID-19 pandemic in an efficient way by conducting online classes, cooperative and co-curricular activities along with continuous online mentoring to alleviate the situation and make the learning hassle-free and effective. It is worth mentioning the effort and dedication shown from the students' and parents' side as well, in adjusting to this changed scenario of teaching-learning process.

### Best Practices

The department offers electives in advanced subjects which has relevance in the industry. The department organized partial delivery of courses (PDC) by the industry experts as adjunct faculty for the several courses such as Web Programming, Advanced Java Programming and Software Testing with objectives of understanding industrial application of the core and current versions of the subjects.

Department of MCA has adopted several best practices as a part of its Teaching and Learning Processes (TLP) with OBE model such as PDC, Innovative Teaching and Co-operative Learning, Continuous Evaluation, offering Value Added Courses(VAC) to enhance student competency and make them industry ready, remedial/tutorial classes to enhance problem solving skills in critical subjects, rubrics based evaluation of seminars and project work, seminar on the topics beyond the syllabus by individual students, student-teacher joint paper publications, student/faculty internship to get exposed to contemporary skills/project works, deputing faculty members to participate in workshops/ conferences, presenting invited



talks, participating as a resource person in conferences/workshops/symposiums, authoring technical books and project/problem based learning. Open short-term courses are offered at the beginning of every semester in contemporary technologies to make the students get foundational knowledge in the new technologies and make them get expertise on them throughout the semester by making them take up projects on the same.

### Improvements

All the classes, though taken online for the odd semester, utmost care is taken that every student is reached by ensuring that the live classes are recorded and uploaded into the department YouTube Channel so that the students can watch the videos at their convenience or when the network issues were rectified. Labs were conducted using Virtual Labs. Eventual assignments were given to monitor the students' adherence to the schedule to make sure that they go through every lecture video to maintain the flow in learning. Further, co-curricular activities were conducted online which attracted maximum student participation. Assessments were taken by using platforms like Moodle, Quizizz, Google classroom, and featured documentaries as case studies. Frequent proctoring sessions were also conducted to address the students' issues.

### Faculty and Support Staff

Department of MCA is having highly qualified and well-trained faculty members who strive to impart knowledge to the students who join MCA. The department is growing step by step with its experienced and enthusiastic staff. The staff and students are performing well in academics, cultural and sports activities throughout the year. Below is the list of faculty members and support staff with their qualification and other details.

Sl	Name	Qualification	Designation	Research Area
1	Dr. Aparna K.	M.C.A., M. Phil, Ph.D.	Associate Professor & Head	Data Mining
2	Dr. Arunkumar B.R.	MCA, M. Phil., M.Tech. (CSE), Ph.D. (CS), PGDIPR (NLSIU)	Professor	Computer Networks, Data Science, Cloud Computing, Software Engineering & IPR
3	Dr. Ganesh P.	M.C.A.	Associate Professor	Cloud Computing
4	Dr. Nagabhushan S.V.	M.C.A., Ph.D.	Assistant Professor	E-Commerce Modelling & Software Engineering.
5	Mr. Dwarakanath G.V.	M.C.A.	Assistant Professor	Computer Networks
6	Mr. Shivakumara T.	M.C.A.	Assistant Professor	Information & Network Security, Database
7	Mrs. Reshma C.R.	M.C.A.	Assistant Professor	Cognitive Radio Networks
8	Mrs. Drakshaveni G.	M.C.A, M.Tech.	Assistant Professor	Digital Image Processing
9	Mrs. Nirupama	M.C.A.	Assistant Professor	Computer Networks
10	Mrs. Sridevi M.	M.C.A.	Assistant Professor	Social Media Data Analytics



11	Mr. Venkatesh A.	M.C.A.	Assistant Professor	Sensor Networks
12	Dr. Sudarsanam P.	M.C.A, M.E. Ph.D.	Assistant Professor	Parallel Computing, Computer Networks

**Technical Staff**

SI	Name	Designation
1	Mr. Shashikiran J.S.	Instructor
2	Mr. Murulidhara K.N.	Asst. Instructor

**Research Initiatives in the department**

- Most of the projects were developed based on the concept of IoT and several of them won Best Project prizes in the Open day event.
- A few other projects are submitted for publication in indexed conferences and journals.

**Innovative/ Collaborative/ Cooperative teaching learning methods adopted**

- Cooperative and innovative learning methods like Open Ended problems, Case Study based learning, Recap of completed chapters, Project Based Learning, Quiz with interactive leader board scores, Asynchronous Learning, Case Studies with documentaries related to the courses, and Module Walkthroughs were adopted in various subjects to substitute for the gaps in online learning.

**Action plan for Slow Learners and Quick Learners**

Action plan has been framed through enriching classes for quick learners to sustain their performance and do even better and extra classes for slow learners to keep pace with the quick learners. Slow learners who have scored less than 60% in IA marks were given remedial inputs, study materials and references.

**Department Advisory Board**

5<sup>th</sup> Department Advisory Board Meeting was held in the Dept. of MCA on 19<sup>th</sup> Sep, 2020 constituting Head of the Department, Program Coordinator, Academic representatives, Industry representatives and representatives of other stake holders.

Sl. No	Name	Designation/ Organization	DAB Representative As
1	Dr. Aparna K	Associate Professor & HoD Department of MCA BMSIT&M	Chairperson
2	Dr. Arunkumar B R	Professor Department of MCA, BMSIT&M	Faculty Member (Member)
3	Ms. Vidyavati Mallappa	Technical Leader Nokia Networks, Bengaluru	Research (Member)
4	Dr. Nithin Nagaraj	Associate Professor NIAS, Bengaluru	Academia (Member)
5	Mr. Mayank Pratap Singh	Senior System Engineer IBM India Pvt. Ltd.	Industry (Member)



		Bengaluru	
6	Mr. Aride C	Member of Technical Staff Paypal Bengaluru	Alumnus (Member)
7	Sri T N Nagaraj	Business	Parent (Member)
8	Ms. Apoorva H A	III Sem MCA USN: 1BY18MCA06	Student (Member)
9	Dr. P. Ganesh	Program Coordinator Associate Professor Dept. of MCA, BMSIT&M	Member Secretary

The 5<sup>th</sup> DAB Meeting was held in the Department on 19<sup>th</sup> September 2020. Dr. Aparna K, Head of the Department, welcomed all the DAB members and presented the key improvements of the Department in the academic year 2019-20. The following points were discussed in the meeting: Curriculum Design for Autonomous PG Program, Implementation, Assessment and Evaluation, Internationalisation for Effective learning outcomes, Incorporation of Blended learning, MOOCs to promote self-learning, Optimal Learning Environment and Support systems for students, Faculty Competency Enhancement Programs. A couple of innovative projects were also demonstrated by the faculty members towards the end of the meeting. Senior Faculty member, Dr. Arun Kumar B. R., proposed the vote of thanks.



**Online DAB meeting in progress**

### **Staff Recognition**

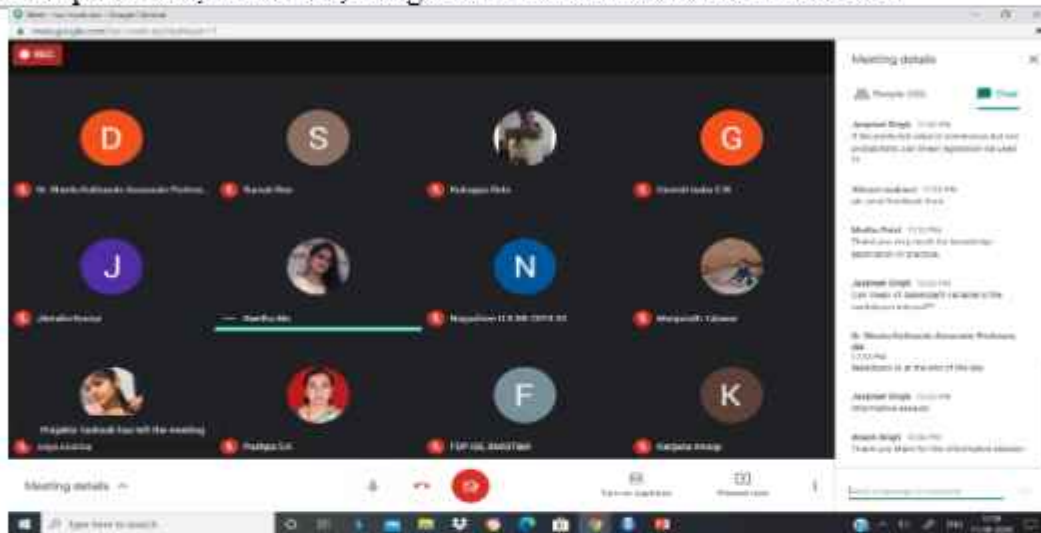
- Dr. Aparna K, Associate Professor & Head, Dept. of MCA, was deputed as an Auditor to the Department of Artificial Intelligence & Machine Learning, BMSITM, to audit the academic documents of the year 2019-20 on 05.08.2020.
- Dr. Arunkumar B R, Professor, Dept. of MCA, was session chair for the 6<sup>th</sup> International Conference on "Emerging Research in Computing, Information, Communication and Applications" at NMIT, Bengaluru conducted from 25.09.2020 to 26.09.2020.
- Prof. Drakshaveni G, Asst. Professor, Dept. of MCA has been appointed as the member of BoE-MCA, VTU, Belagavi for 2020-21.
- Prof. Drakshaveni G, Asst. Professor, Dept. of MCA was a reviewer for the Sixth International Conference on "Emerging Research in Computing, information, communication and applications(ERRICA-2020)" held from 25.9.2020 to 28.9.2020 at NMIT, Bangalore.



- Dr. P.Ganesh, Associate Professor, Department of MCA and Head-TPO, has been nominated as the member of the Sub-Committee that has been constituted to study and implement NEP-2020 at BMSET and BMSITM.

#### Invited Talks delivered by faculty members

- Prof. Dwarakanath G. V., Assistant Professor, Dept. of MCA has extended his support as resource person for the 5-day “Webinar on Raspberry Pi” organized by SJR Degree College, Bengaluru from 10.08.2020 to 14.08.2020.
- Prof. M.Sridevi, Assistant Professor, Dept. of MCA has extended her support as resource person for the 5-day online FDP on “Trends in Data Analytics” organized by the Dept. of ISE, BMSITM, Bengaluru from 10.08.2020 to 14.08.2020.



#### **Virtual FDP and interaction**

- Prof. M.Sridevi, Assistant Professor, Dept. of MCA has delivered a talk on “Can we become a Change Maker?” on behalf of the Universal Human Values Cell of BMSITM during the VTU-B.E. Student Induction Program, on 22.12.2020

#### Research Papers published in International Journals

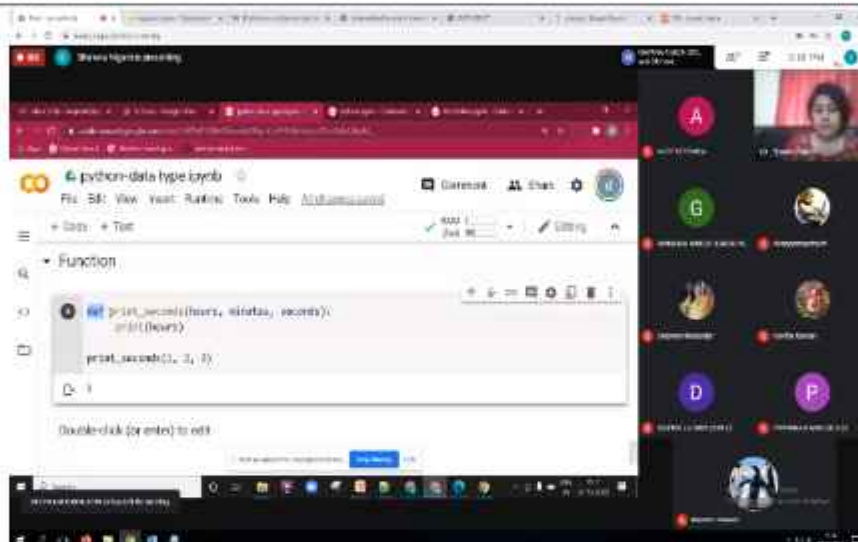
- Prof.Dwarakanath G V, Dr. Aparna K and Vishwanath K(student), “Efficient Intelligent Pot For Precious Plants”, Journal of Critical Reviews, ISSN - 2394-5125, Volume – 7, Issue – 13, August 2020, Page No. 2620 – 2625 - Scopus Indexed Journal.
- Prof. Drakshaveni G, “Ultrasound and thermal image enhancement technique using convolution neural network”, International Journal of Advanced Research in Engineering and Technology (IJARET), ISSN Print: 0976-6480 and ISSN Online: 0976-6499 , Volume 11, Issue 8, August 2020, pp. 769-781 - Scopus Indexed Journal.
- Prof. Venkatesh A., “Virtual Private Cloud Overview”, International Journal of Application or Innovation in Engineering and Management, Vol 9, Issue 7, ISSN: 2394-5125, during August 2020.
- Dr. Aparna K, “Opinion Based Recommendation System Using Sentimental Analysis” ,International Journal of Advanced Science and Technology, Vol. 29, No. 03, (2020), pp. 12657 – 12667, September 2020 -Scopus Indexed Journal.
- Prof. Venkatesh A., “Using Video conference Applications to Conduct Interviews during Covid-19 Pandemic”, International Journal of Solid State Technology, Volume 63, Issue 5, ISSN 0038-111X , during September 2020.



- Prof. Venkatesh A., “Proficient IP Multimedia Subsystem automation framework”, International Journal of Critical Reviews, Vol 7, Issue 13, ISSN: 2319-4847, during October 2020.

### **Value Added Course**

- A 6-day STTP on “Selenium WebDriver using Python” was organized by the Department of MCA, MSRIT, Bengaluru, from 07.12.2020 to 12.12.2020. Programming using Python (18MCA32) is a core subject for III Sem MCA and Software Testing (18MCA351) is an elective offered to III Sem MCA students as per VTU curriculum. All the III Sem MCA students attended the STTP which enabled us to bridge the curriculum gap as the VTU curriculum did not comprise of hands-on learning for many of the concepts. The entire 6-day sessions were monitored by our faculty members and attendance was made compulsory.



**Value added course under progress**

### **Research Papers presented in the International Conference**

- Prof. Shivakumara T, “Intrusion Prediction And Detection Using Support Vector Machine (SVM) and Artificial Neural Network (ANN)”, Proceedings of Virtual Conference on Artificial intelligence, Network security, Data science and IoT.- VCANDO, 2020, Page.73, Velammal Engineering College, Chennai, on 6<sup>th</sup> and 7<sup>th</sup> of August, 2020.
- Prof. Nirupama K, “Mobile App for Accident Detection to Provide Medical Aid”, 2<sup>nd</sup> International Conference on Innovative Computing and Cutting-Edge Technologies, on 11<sup>th</sup> and 12<sup>th</sup> of September, 2020.
- Dr.Arunkumar B R, “AI based digital marketing strategies – A review”, International Conference on Inventive Computation and Information Technologies (ICICIT 2020) organized by RVS Technical Campus, Coimbatore from 24<sup>th</sup> to 25<sup>th</sup> September, 2020.

### **Faculty Participation in Workshops/FDPs/STTPs/Webinars**

- Prof. Drakshaveni G, Assistant Professor, Department of MCA, has attended online FDP on “Exemplary practices in teaching –learning and evaluation of courses in computer science and information technology” from date 03.08.2020 to 07.8.2020.



- Dr. Sudarsanam P, Assistant Professor, Department of MCA, has attended five days online Faculty Development Program on "Exemplary Practices in Teaching Learning Evaluation of courses in Computer Science and Information Technology" jointly organized by VTU centre for post graduate studies Kalaburagi and IIIT Allahabad from 03.08.2020 to 07.08.2020.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in one day State Level "Covid-19 Stress Management workshop - Education as it is vs As it should be" workshop organized by the State NSS Cell Department of youth Empowerment and Sports on 6.8.2020.
- Prof. Nirupama K, Assistant Professor, Department of MCA, has attended online FDP on "Exemplary practices in teaching –learning and evaluation of courses in computer science and information technology" from date 03.08.2020 to 07.8.2020.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in one day State Level "Covid-19 Stress Management workshop – Coping with Snakes and Environment" workshop organized by the State NSS Cell Department of youth Empowerment and Sports on 8.8.2020.
- Prof. Shivakumara T, Assistant Professor, Dept. of MCA, has participated in 3 days online FDP on "Block Chain, Java Spring Boot, Cloud Native App" organized by Dept. of ISE and CSE, HKBK College of Engineering, Bengaluru in association with ISTE from 10.08.2020 to 12.08.2020.
- Prof. Shivakumara T, Assistant Professor, Department of MCA has participated in webinar on "Introduction to Intellectual Property Rights (IPR) and Patent Filing" conducted on 12.08.2020, organized by Dept. of CSE and CIIE in association with RGNIIPM.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in one day webinar on " Careers in Cyber Security", organized by Dept. of CSE in association with K7 Academy, GITAM School of Technology, Bengaluru on 13.08.2020.
- Dr.Arunkumar B.R., Professor, Dept. of MCA completed 5 days FDP on "Data and Life Sciences" conducted by Dept. of MCA, BIT, Bengaluru from 10.08.2020 to 14.08.2020.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in one day state level "Youth Engagement for Global Action" workshop organized by the State NSS Cell Department of youth Empowerment and Sports on 12.8.2020.
- Prof. Shivakumara T, Assistant Professor, Dept. of MCA, has participated in AICTE sponsored 6 days online STTP on "Python and Mobile Application Development" Organized by Dept. of ISE, HKBK College of Engineering, Bengaluru from 13.08.2020 to 18.08.2020.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in National Webinar on " History and Significance of National Flag" organized by NSS unit, SSFGC in collaboration with State NSS Cell on 13.08.2020.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in International Webinar on " Life Skill Enhancement through NSS and NCC" held by NSS and NCC units of Dr. A.V. Baliga College of Arts & Science, Kumuta on 16.08.2020.
- Prof. Drakshaveni G, Assistant professor, Department of MCA has attended webinar on "Role of Startups and Innovators in Atmanirbhar Bharat", from 26.08.2020 to 28.08.2020, organised by AIC-NITTE and B M S Institute and Management, Bengaluru.
- Dr.Arunkumar B R, Professor, Dept. of MCA, attended .AICTE-ATAL FDP on "Block Chain" from 07.09.2020 to 11.09.2020 by BIT, Mesra.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in National Webinar on "NEP:2020 Transformation School Education" by Campus 2



Community and NSS-Karnataka and Center for Educational and Social Studies on 18-9-2020.

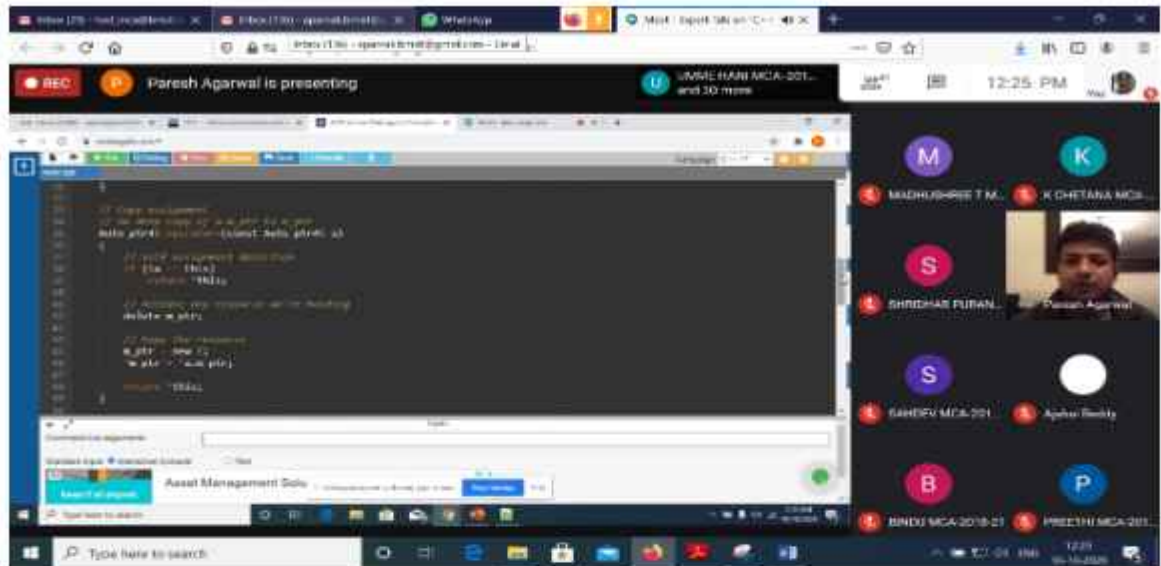
- Dr. Sudarsanam P, Assistant Professor, Department of MCA, has attended AICTE sponsored online 5 days FDP on “Python and Mobile Application Development” from 24.09.2020 to 29.09.2020 organized by the Department of ISE, HKBK College of Engineering, Bengaluru.
- Dr. Sudarsanam P, Assistant Professor, Department of MCA, has participated in National Level Webinar on “Future of Higher Education in India – Turning Challenges into Opportunities” organized by the BMS Institute of Technology and Management on 29.09.2020.
- Dr. Arunkumar B R, Professor, Dept. of MCA, attended online AICTE-ATAL FDP on “Block Chain” from 21.09.2020 to 25.09.2020 by KCG College of Technology.
- Dr. Aparna K, Associate Professor & HoD, Department of MCA, attended online AICTE-ATAL FDP on “Business Data Analysis using R Software” from 22.09.2020 to 26.09.2020, by Tripura University.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in National Level Webinar on “Future of Higher Education in India – Turning Challenges into Opportunities” organized by BMSITM on 25.09.2020.
- Prof. M. Sridevi, Assistant Professor, Dept. of MCA completed the one month Gurucool program with 6-Days Hands-on learning followed by project Build-A-Thon on IoT, Data, ML, Artificial Intelligence & Cloud Native powered by IBM in association with SmartInternz and supported by JNTU-Anantapur, from 28.09.2020 to 28.10.2020.
- Prof. Drakshaveni G, Asst. Professor, Dept. of MCA, has successfully participated in the webinar on “Digital Transformation”, on 09.10.2020, organised by “World Comes to Learn”.
- Prof. Drakshaveni G, Asst. Professor, Dept. of MCA has attended online FDP on “Deep Learning Using Medical Data” from 12.10.2020 to 16.10.2020 organized by Finland Labs (A Unit of Revert Technology Pvt. Ltd.) in Association with National Social Summit, IIT Roorkee.
- Dr. Aparna K, Associate, Professor & HoD, Dept. of MCA, attended a 2-week Instructor-led live online STTP on “Data Science using Python” from 19.10.2020 to 30.10.2020 organized by Finland labs in association with National Social Summit, IIT Roorkee.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in online webinar on “AI in Cyber Security” organized by CySeck-CoE (GoK) and K-Tech on 28.10.2020.
- Prof. Drakshaveni G, Asst. Professor, Dept. of MCA, has participated in the webinar on the “SCIENTIFIC WRITING FOR JOURNALS” on 30.10.2020, organised by SPRINGER NATURE in association with VTU-CONSORTIUM.
- Dr. Aparna K, Associate Professor & HoD, Prof. Nirupama K, Assistant Professor, Dept. of MCA and Prof. Drakshaveni G., Assistant Professor, Dept. of MCA, attended a 10-day AICTE sponsored Short Term Training Programme under AQIS on “Selenium Webdriver using Python” (online) from 11.11.2020 to 19.11.2020, organized by the Department of MCA, M S Ramaiah Institute of Technology, Bengaluru.
- Prof. M. Sridevi, Asst. Professor, Dept. of MCA attended 5-days online AICTE-ATAL Academy FDP on “Artificial Intelligence” from 21.11.2020 to 25.11.2020 organized by IIIT, Naya Raipur.



- Prof. Shivakumara T, Assistant Professor, Department of MCA, has participated in online webinar on “Zero Trust Decoded Hands on” organized by CySeck-CoE (GoK) and Unisys on 09.12.2020.
- Prof. Shivakumara T, Assistant Professor, Dept. of MCA, completed course on “Security Concerns and risk management in information systems” offered through Cyber Security Karnataka (CySecK) in association with Indian Institute of Information Technology-Dharwad (IIT-Dharwad) from 28.11.2020 to 06.12.2020.
- Prof. Venkatesh A, Assistant Professor, Dept. of MCA, has attended a AICTE sponsored workshop on “Selenium Webdriver using Python from 07.12.2020 to 12.12.2020 conducted by MSRIT, Dept. of MCA in online mode.
- Prof. Shivakumara T, Assistant Professor, Dept. of MCA, has received certificate of achievement after successfully completing the assessment and participating in the webinar on the topic “Zero Trust Decoded Hands-on”, on 09.12.2020, organised by Cyber Security Karnataka in association with Unisys.
- Prof. Shivakumara T, Assistant Professor, Dept. of MCA, has received certificate of achievement after successfully completing the assessment and participating in the webinar on the topic “Optimizing Research Footprint in Online Landscape”, from 11.12.2020 to 12.12.2020, organised by Channavasaveshwara Institute of Technology, Gubbi.
- Prof. Shivakumara T, Assistant Professor, Dept. of MCA, participated in the webinar on the topic “How to write Resume, Curriculum Vitae and Bio-Data”, on 20.12.2020, organised by Research Circle.
- Prof. Shivakumara T, Assistant Professor, Dept. of MCA, participated in the webinar on the topic “How to write Resume, Curriculum Vitae and Bio-Data”, on 20.12.2020, organised by Research Circle.
- Prof. Shivakumara T, Assistant Professor, Department of MCA attended online FDP on “Cyber Security” from 04.01.2021 to 08.01.2021 organized by Dr. M.G.R. Educational and Research Institute - AICTE Training and Learning (ATAL) Academy.
- Prof. Shivakumara T, Assistant Professor, Department of MCA, has successfully completed the online certification course on the topic “Digital Teaching Techniques” held from 18.01.2021 to 23.01.2021, organized by ICT Academy, Chennai.
- Dr. Sudarsanam P, Assistant Professor, Department of MCA, has attended 5 days FDP on “Academia and Industry Interaction, Avenues in Funded Projects and Entrepreneurship” from 08-01-21 to 13-01-21 at Reva University, Bangalore

#### **Expert Talks Organized by the Department**

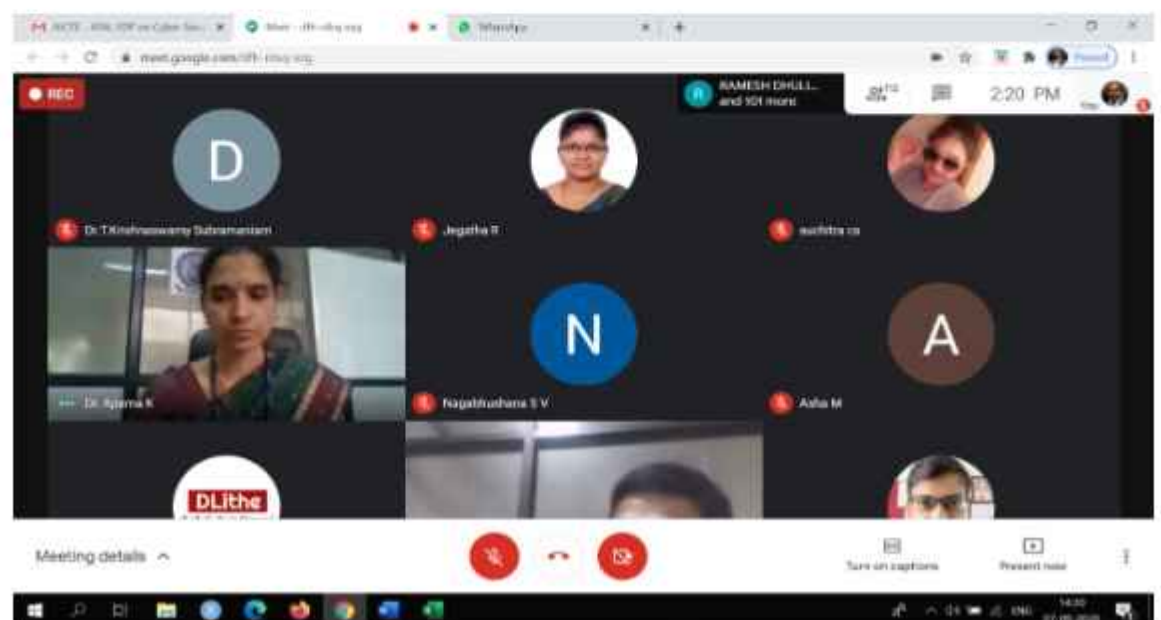
- Department of MCA organized an online expert talk on the topic “Practical Approach to Machine Learning” for the students of Dept. of MCA on 21.08.2020 delivered by Dr.Sailaja Kumar and Dr.Evangelin Geetha, Assistant Professors, Dept. of MCA, M.S.Ramaiah Institute of Tehnology, Bengaluru.
- Department of MCA organized an online expert talk on “Overview of C++ concepts” on 10.10.2020 delivered by Mr. Paresh Agarwal, Senior Manager – Samsung Electronics Pvt. Ltd.



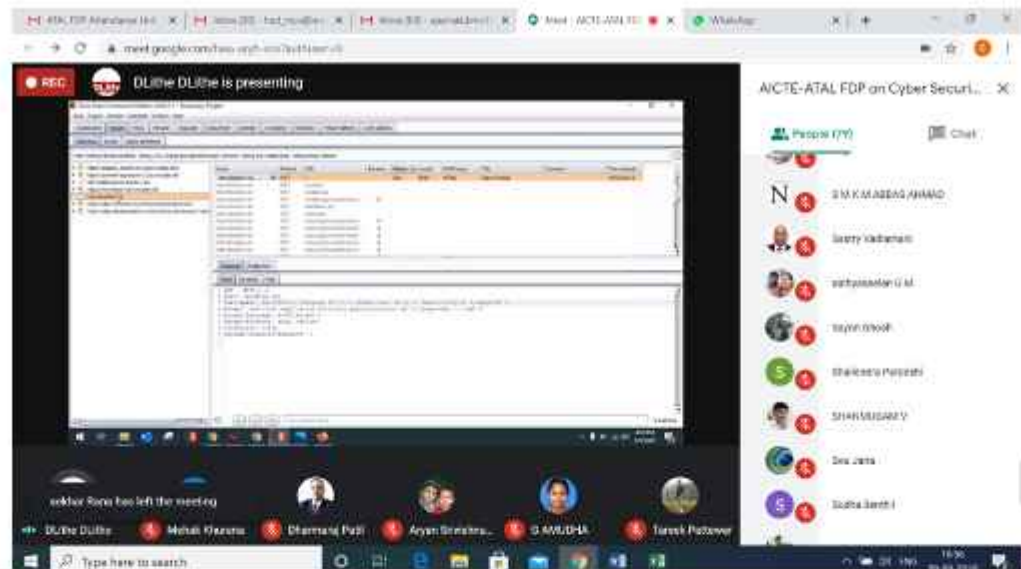
**Resource person delivering the session**

**Workshops organized by the Department**

- The AICTE-ATAL sponsored 5-day Online FDP on “Cyber Security” was held from 07-09-2020 to 11-09-2020. This FDP was organized by the Department of MCA, BMS Institute of Technology and Management, Bengaluru and it was co-ordinated by Dr. Aparna K, Head, Department of MCA. There was an overwhelming registrations from 290 participants spanning across the nation but as per the norms of AICTE-ATAL, only 200 participants were approved. The 5-day FDP was inaugurated by Dr. Mohan Babu G.N, Principal, BMS Institute of Technology and Management, Bengaluru. The Department, in association with M/s. Dlithe, could line up the team of resource persons for the week long FDP. All the 13 technical sessions were held by the resource persons Mr. Bharath, Mr. Sunil and Ms. SriLakshmi. The session on soft skills was handled by Ms. Rebecca. She dealt with topics like Leadership skills, Decision making, Analyzing and motivation, Problem solving and Team Dynamics.



**Dr. Aparna K giving the foreword to the workshop**



Ongoing session of the workshop

### Faculty Achievements

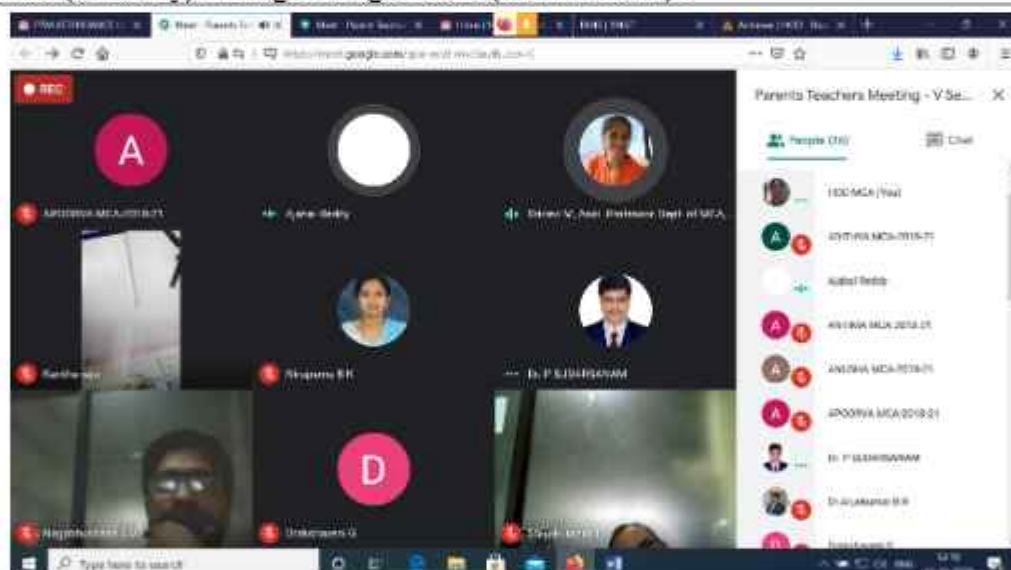
- Dr. Aparna K. was granted Rs.93,000/- for the FDP proposal titled “Cyber Security” by “AICTE-ATAL Academy” in the month of August, 2020.
- Dr. Aparna K. has successfully completed an online course on “Blockchain Basics” offered by The State University of New York and University at Buffalo through Coursera in August, 2020.
- Prof. Shivakumara T. has successfully completed “Leadership and Emotional Intelligence” course authorized by Indian School of Business and offered through Coursera on 11.08.2020.
- Prof. Dwarakanath G.V., and Dr. P Ganesh were part of the team which filed a patent titled published a patent titled “Covid-19 Thermal Screening Using Smart Helmet” under the Textile category at Indian Patent Office vide Application number 202041036651 dated 25.08.2020 and publication Number 37/2020 dated 11.09.2020 page:39045.
- Prof. Venkatesh A. has completed a course on “Programming for Everybody”(Getting started with Python) from University of Michigan, offered through Coursera during August 2020.
- Prof. Drakshaveni G completed online course on “Convolution Neural Networks” offered through Coursera on 01.09.2020.
- Prof. Drakshaveni G. completed online course on “Programming for Everybody (Getting Started with python)” offered by UNIVERSITY OF MICHIGAN through Coursera on 13.09.2020.
- Prof. Shivakumara T, Dr. Rajashekar M Patil, Dr. Shantakumar Patil, Dr. Premjyothi Patil, Ms. Nagashree N filed a patent with application number 202021038154 on 18.09.2020 with title of the invention “Prevent the sensitive data leakage in REST”.
- Dr. P Ganesh, and Prof. Dwarakanath were part of the team which filed a patent titled “Catastrophe Detection and Smart Rescue System Utilizing Android Smartphone with Real-Time Location Tracking” under the Communication category at Indian Patent Office vide Application number 202041049454 dated 12.11.2020 and publication Number 47/2020 dated 20.11.2020 page:59018.



- Prof. Shivakumara T. is the co-author for the book chapter titled “Artificial Intelligence and its application to headhunting” in the book “Advances in Computer Science” (Volume-11), Akinik Publications, Delhi.
- Prof. Nirupama K. has completed online course on “Leadership and Emotional Intelligence” and “Introduction to Artificial Intelligence (AI)” offered by Coursera.
- Prof. Drakshaveni G received Best Paper Incentive from BMSITM on 26.11.2020 for the paper titled “Ultrasound and thermal image enhancement technique using convolution neural network”.
- Dr. Sudarsanam P. has completed online course on “Introduction to Artificial Intelligence” offered by Coursera in association with IBM.
- Prof. Shivakumara T. was the reviewer of the research article titled “Upcoming Applications, Challenges, Need of Security and Future Scopes of Internet of Things (IoT) during February 2021 in Global Research and Development Journals (GRD).

### Parent-Teacher Meet

The Parents-Teachers Meeting for both III semester and V semester MCA was held on 17.10.2020 (Saturday) through Google Meet (Online mode).



**PTM through online mode**

### Open Day

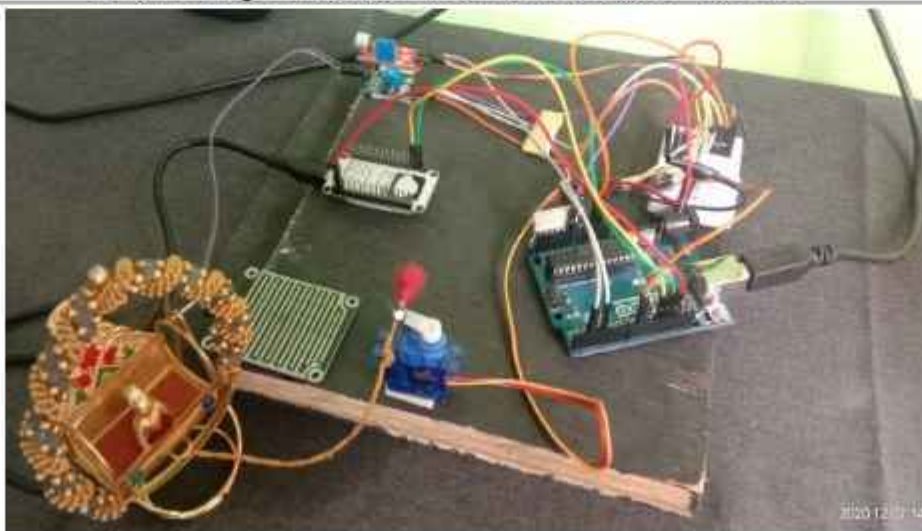
- The Open Day (Project Exhibition) was conducted online at the Department of MCA on 07.12.2020. All the V Semester students came out with innovative projects which were IoT based, developed using Raspberry-Pi, Pic-18 and Arduino boards under the guidance of Prof. Dwarakanath G V and Prof. M. Sridevi. A total of 27 projects were evaluated by an Internal Committee (Dr. Aparna K, Dr. Sudarsanam P and Prof. Drakshaveni) at the Department level on 04.12.2020 and 05.12.2020. Out of 27 projects, 18 projects were short-listed for final evaluation by external jury on 07.12.2020. The jury for the final evaluation comprised of Mr. Arun Rajpurohit, Founder Director, Dlithe Pvt. Ltd., and Dr. P Ganesh. The evaluation was done based on parameters like innovation, clarity in the objectives set and met, communication, innovation, team work, and societal/industrial/environmental relevance of the project. Three best projects were selected and were awarded cash prizes.



**Solar Tracking Panel – I Prize**



**Smart Crop Protection and Fire Detection - II Prize**



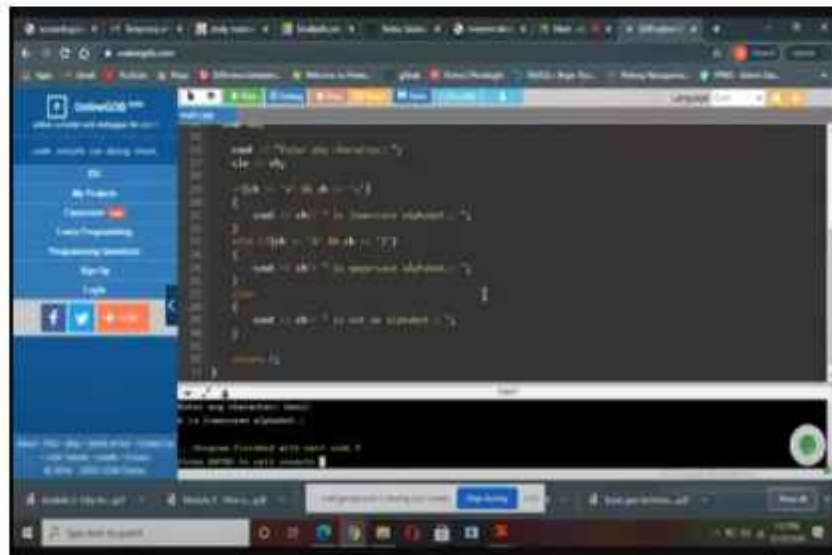
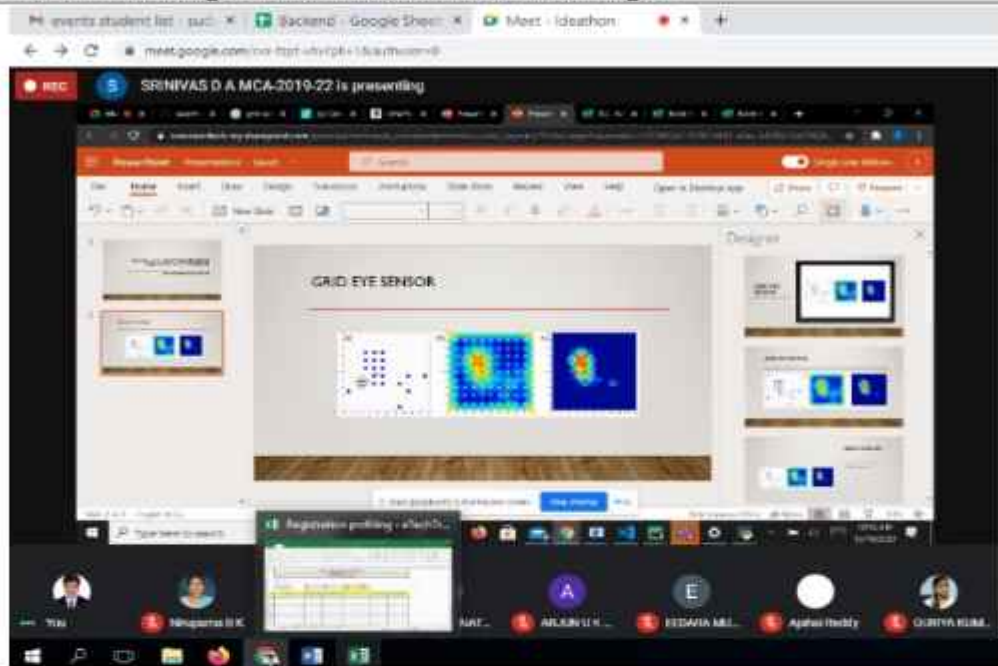
**Smart Cradle System - III Prize**



## Technical Fest

### TechniX4.0

- The Department Technical Fest, TechniX4.0 was organized online in the Department of MCA on 18.12.2020 and 19.12.2020. The following events were conducted: Ideathon, Code Auction, Scavenger Hunt, Idiotic, and Best Manager.



Snapshots of the events under progress

*An invention has to make sense in the world it finishes in, not in the world it started.*  
- Tim O'Reilly

### **Departmental Co-curricular Activities**

- Prof. M.Sridevi, Assistant Professor, Dept. of MCA conducted an Asynchronous Learning Activity on “Unexplored areas of Machine Learning Applications” on 07.09.2020 and 08.09.2020 for the “Machine Learning” course.
- Prof. M.Sridevi, Assistant Professor, Dept. of MCA conducted online quiz on 01.10.2020 for the students of 5<sup>th</sup> semester MCA on Machine Learning by using the Quizizz platform to make the activity more interesting by leader board scores and individual performance analysis after the event
- Prof. M. Sridevi, Asst. Professor, Dept. of MCA, featured the Netflix Documentary “Social Dilemma” for the students of V semester MCA, which discusses about the dark side of social media and ethical aspects of machine learning wedded with social media. A review on the movie is solicited from the students as their case-study based assignment under the course “Machine Learning”.

### **Inauguration for I semester MCA Class**

The 18<sup>th</sup> Batch of I semester MCA classes was inaugurated on 18.01.2021. The programme began with an invocation song by III Semester student followed by lighting of the lamp by the dignitaries. The Head of the Department, Dr. Aparna K, welcomed the gathering. Our beloved Principal, Dr. MohanBabu G N delivered the inaugural and presidential address as the chief guest. The Dean Academics, Dr. Thippeswamy G, addressed the gathering on academic orientation and the Vice Principal, Dr. HK Govindaraju, briefed the students about the infrastructural and central facilities of the institution. The programme concluded with the Vote of Thanks rendered by Dr. Arunkumar, followed by National Anthem and orientation sessions on later part of the day.



**Lighting of lamp by the dignitaries**



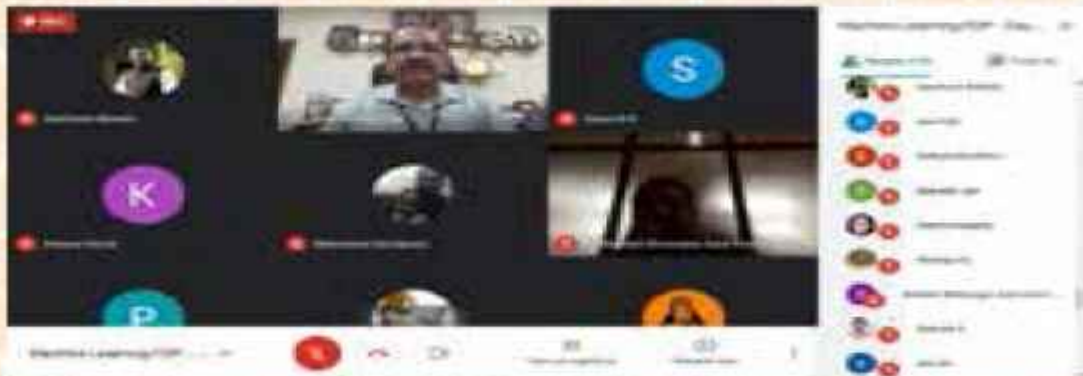
Dignitaries on the Dias

**Department of MCA on print media**

- The 5-day FDP on “Machine Learning” organized by Department of MCA from 27.07.2020 to 31.07.2020 was published in CSI Communications, September Issue, 2020.

**B M S INSTITUTE OF TECHNOLOGY & MANAGEMENT, BANGALORE  
(REGION-V)**

Reported by Dr Aparna, SBC, B.M.S. Institute of Technology & Management



B M S Institute of Technology & Management, Bangalore has organized a five days online Faculty Development Program on Machine Learning from 27th July 2020 to 31st July 2020. This FDP has helped the participants to get an insight in to the Machine Learning aspects



- The 5-day AICTE-ATAL sponsored FDP on “Cyber Security” was published in CityHighlights dated 17.09.2020 and Indian Express dated 19.09.2020.

## Online workshop on “Cyber Security” at BMSIT&M Yelahanka

MCA Department at BMS Institute of Technology and Management, Yelahanka, Bengaluru, organized a 5-day online Faculty Development Programme (FDP) on “Cyber Security” from 7th September 2020 to 11th September 2020 sponsored by AICTE-ATAL academy. Event received an overwhelming response from around 300 participants spanning across country.

The FDP was inaugurated by Principal, Dr. Mohan Babu G N, who is very instrumental in organizing such activities. He spoke about the Cyber frauds and privacy of users data. Dr. Mohan Babu said that, it is need of the hour to create the Cyber awareness, in this direction it is a good effort to conduct these kind of workshops. Eminent resource persons from Indus-



try and reputed institutions were invited to conduct the sessions. There were a total of 14 sessions covering most of the important aspects of Cyber security. The aim of this FDP was to

give a complete insight of Cyber Security to the faculty community. The Faculty Development Program was co-ordinated by Dr. Aparna K, HOD, Department of MCA.



- Inauguration of 18<sup>th</sup> batch of I semester MCA Class 2020-2022 was published in English daily CITY HIGHLIGHTS dated 20.01.2021.

### Inaugural Function of MCA Classes at BMSIT&M Yelahanka



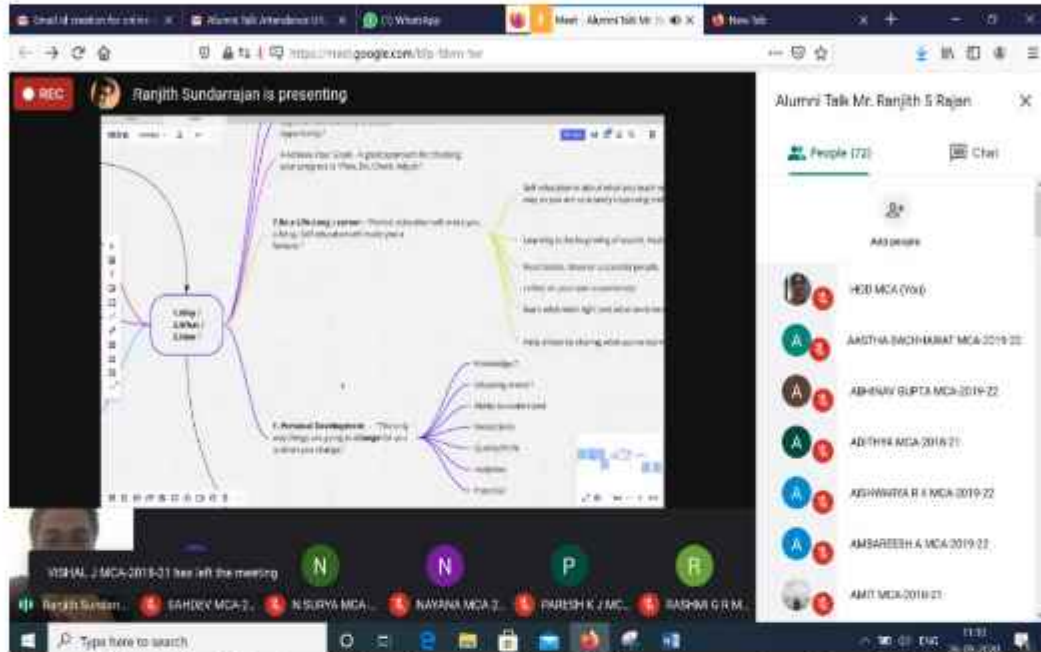
The 18th batch of Master of Computer Application two years programme has been inaugurated at BMSITM. Dr.Mohan Babu G N Principal, Dr.Govinda Raju, Vice Principal formally initiated the function by lighting the lamp followed by their talks about course along with explained about how to achieve learning

Outcomes, sustaining quality with reduced duration and limited time. Dr.Aparna, Head of the department engaged the rest of the day long program with presentations on best practices of department, infrastructure, facilities followed by departmental and campus tour.



### Alumni Interaction

- A motivational talk (Online) on “Architecting ME!” was organized by the Department of MCA on 26-09-2020. The speaker was Mr. Ranjith S Rajan, Senior Manager – Software Engineering, Lowe’s India Pvt. Ltd and 2005-08 batch – MCA passed out at BMSIT&M. Mr. Ranjith interacted with the 3<sup>rd</sup> and 5<sup>th</sup> semester MCA students on personality development. He gave them good suggestions on honing the technical skills, improve their communication skills, effective time management, facing interviews etc. It was a very effective and interactive session.



- A talk on “Growth Mindset – Reach your Potential” was organized by the Department of MCA on 17.12.2020. The speaker was Mr. Prasun Dhar, Senior NetSuite Solution Consultant (Pre Sales) at Oracle, Dubai, and 2004-07 batch – MCA passed out at BMSITM. Mr. Prasun interacted with the 3<sup>rd</sup> and 5<sup>th</sup> semester MCA students on how their personality can be shaped up on an all-round basis. He gave them good suggestions on honing their technical skills, improve their communication skills, effective time management, facing interviews etc. It was a very effective and interactive session.





- Our Alumnus Mr. Prasun Dhar, Senior NetSuite Solution Consultant (Pre Sales) at Oracle, Dubai, and 2004-07 batch – MCA passed out at BMSITM, has donated 2 copies of the book “Emotional Intelligence 2.0” to the Department Library.

### Even Semester 2020 – Toppers



<b>II SEM</b> Arjun U K 1BY19MCA07 SGPA 9.74	<b>IV SEM</b> Sahdev Kumar Gupta 1BY18MCA24 SGPA 9.65	<b>VI SEM</b> Rohith B 1BY17MCA18 SGPA 10	<b>VI SEM</b> Lavanya V 1BY17MCA11 SGPA 10
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### Placement Details

SL NO	USN	NAME	COMPANY PLACED
1	1BY18MCA24	SAHDEV KUMAR GUPTA	TCS
2	1BY19MCA58	MD. SARFARAJ AHMAD	EVERTZ
3	1BY19MCA61	PARESH K J	COGNIZANT

### Points to Ponder

- A river cuts through rock, not because of its power, but because of its PERSISTENCE.
- Climb mountains not so the world can see you, but so you can see the world.
- A closed door still has a way out; a closed mind doesn't.
- No one can make you feel inferior without your consent.
- If it is important to you, you will find a way. If not, you will find excuses.

**Editorial Committee**

**Patron**

**Dr. Mohan Babu G.N.**  
Principal

**Chief Editor**

**Dr. Aparna K.**  
Associate Professor & HoD

**Editor and Cover Design**

**Ms. M. Sridevi**  
Assistant Professor

**DTP Work**

**Mr. Murlidhara K.N.**  
Asst. Instructor

**Student Coordinators**

**Mr. Surya Prakash, V Semester MCA**  
**Ms. Nayana, V Semester MCA**

## GOOD TIMBER


The tree that never had to fight  
For sun and sky and air and light,  
But stood out in the open plain  
And always got its share of rain,  
Never became a forest king  
But lived and died a scrubby thing.

The man who never had to toil  
To gain and farm his patch of soil,  
Who never had to win his share  
Of sun and sky and light and air,  
Never became a manly man  
But lived and died as he began.

Good timber does not grow with ease,  
The stronger wind, the stronger trees,  
The further sky, the greater length,  
The more the storm, the more the strength.  
By sun and cold, by rain and snow,  
In trees and men good timbers grow.

Where thickest lies the forest growth  
We find the patriarchs of both.  
And they hold counsel with the stars  
Whose broken branches show the scars  
Of many winds and much of strife.  
This is the common law of life.

By Douglas Malloch



**Learning is not attained by  
chance, it must be sought for with  
ardor and diligence.**

Abigail Adams