



## **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 fifth issue of AGRATHA, a 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.Arunkumar B.R.**

Professor & Head

Dept. of MCA

GREETINGS FROM DEPT. OF MCA.

It gives me an immense pleasure to share the 5<sup>th</sup> issue of the department newsletter, “Agratha, 2017- 18” as a Head of the department , chief editor and as a Introducer of the Agratha . I am happy to share that the Dept. of MCA is provisionally accredited by the National Board of Accreditation (NBA), New Delhi for the academic years 2018-19 and 2019-20.

Agratha show cases activities, progress and developments of the dept. from August 2017 to July 2018. Dept. has made a very good progress predominantly in teaching learning processes with outcomes-based education model. Dept. has improved the best practices adopted such as Project/problem-based learning, Innovative/ Cooperative teaching methods, case study based learning, and open-ended questions in labs. Apart from TLP, dept. has made a good progress in university results, research, placements etc. Agratha presents you other details such as faculty internship, organization of expert talks, seminars, workshop, participation in conference, partial delivery of classes, Dept. Advisory Board meeting, participation in faculty development programmes and invited talks delivered.

I appreciate the dedication and team work shown by Ms. M. Sridevi, Asst. Professor & Editor, Mr.Muralidhara K.N, Asst. Instructor and student coordinators Mr.Preetum Singh, Mr.Yogesh of 5<sup>th</sup> Sem. and Mr. Rohit and Ms. Lavanya of 3<sup>rd</sup> Sem. in bringing this newsletter at its best.

It is my honour and duty to express my gratitude to the Principal and Management for support and guidance in all our endeavours including the release of Agratha 2017-18.

I thank all those who contributed directly or indirectly in bringing out this newsletter.



## **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 six 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.

BMSITM has been elevated into NIRF (National Institutional Ranking Framework) Elite Club of Top 100 Institutions by securing 95th Position at National Level (8th in Karnataka, 5th in Bengaluru and only affiliated institution in Karnataka to reach top Rankings of NIRF). BMSITM has been accredited by the National Board of Accreditation (NBA), New Delhi.



## **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 six educational institutions under the BMS Educational Trust recognized by AICTE, New-Delhi and affiliated to Visvesvaraya Technological University, Belgaum. The Institute offers 7 UG, 3 PG and 8 Research Programmes. As on 2017-18, approximately the number of faculty members with Ph.D. is 46, Ph.D. scholars are 96.

The Institute is located on an 18.5 acres campus in Avalahalli Village, Doddaballapur-Yelahanka 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 is honoured with Outstanding Engineering Institute-South by Vijayavani National Leadership Award.

BMSITM is 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 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 (03 Ph.D. holders and 09 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 in 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 90%, secured 9 VTU Ranks and placement of nearly 90% 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. VTU Research centre in MCA dept. was established in 2016-17. 06 Ph.D. research scholars are working under the research supervision of Dr. Arunkumar BR.

Dept. 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.

**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.

Dept. 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

Data Analytics Lab has been offered as Value Added Course and the students of IV semester analysed 21 datasets to derive valuable conclusions from them. Assignments were given with higher Blooms Taxonomy. Question Paper Scrutiny has been made strict by adding justification for the innovative question asked. Case study questions were also improved to provide context specific knowledge to students. Remedial classes format has been redefined. Course Outcomes were redefined for seminar evaluation and course plan as per OBE was designed for Project Work.

### 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. Under the able leadership the department is growing step by step with his vast experience and enthusiasm. 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	<b>Dr. Arunkumar B.R.</b>	MCA, M. Phil., M.Tech. (CSE), Ph.D. (CS), PGDIPR (NLSIU)	Professor & Head	Computer Networks, Data Science, Cloud Computing, Software Engineering & IPR
2	<b>Mr. Ganesh P.</b>	M.C.A.	Associate Professor	Cloud Computing
3	<b>Dr. Aparna K.</b>	M.C.A., M. Phil, Ph.D.	Associate Professor	Data Mining
4	<b>Dr. Nagabhushan S.V.</b>	M.C.A., Ph.D.	Assistant Professor	E-Commerce Modelling & Software Engineering.
5	<b>Mr. Dwarakanath G.V.</b>	M.C.A.	Assistant Professor	Computer Networks
6	<b>Mr. Shivakumara T.</b>	M.C.A.	Assistant Professor	Information & Network Security, Database
7	<b>Mrs. Reshma C.R.</b>	M.C.A.	Assistant Professor	Cognitive Radio Networks
8	<b>Mrs. Drakshaveni G.</b>	M.C.A, M. Tech.	Assistant Professor	Digital Image Processing
9	<b>Mrs. Nirupama</b>	M.C.A.	Assistant Professor	Computer Networks
10	<b>Mrs. Sridevi M.</b>	M.C.A.	Assistant Professor	Social Media Data Analytics
11	<b>Mr. Venkatesh A.</b>	M.C.A.	Assistant Professor	Sensor Networks
12	<b>Mr. Sudarsanam P.</b>	M.C.A, M. Tech.	Assistant Professor	Grid Computing

### Technical Staff

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



**Professional Body Membership & Ph.D. Status Details**

SI	Faculty Name	Professional Membership Numbers	Ph. D. Status/ Research Guidance
1	Dr. Arunkumar BR	MCSI-00135953 ISTE-LM 45448 LM CRSI L/181 MIAENG MISRN LMIETE M 500221	Guiding 06 Ph.D. research scholars
2	Mr. P Ganesh	ISTE-LM52360	Completed Comprehensive viva
3	Ms. Aparna K	CSI - LM00146827 ISTE - LM52361	Thesis Submitted
4	Dr. Nagabhushan SV	ORSI – Operation Research Society of India - 1215/L/N/16	Ph.D. Completed
5	Mr. Dwarakanath GV	ISTE LM 44209	Registered
6	Mr. Shivakumara T	ISTE-LM92649, DSCI-2018	Course work Completed
7	Mrs. Reshma C R	ISTE, LM110654	Course work Completed
8	Mrs. Drakshveni G	CSTA	Course work Completed
9	Mrs. Nirupama	ISTE-LM93814 ISCA LM29016	Registered
10	Mrs. M Sridevi	ISTE LM 52363 ISCA L29017	Course work Completed
11	Mr. Venkatesh A	ISTE LM93723	Course work Completed
12	Mr. P Sudarsanam	ISTE LM93724	Comprehensive viva Completed

**Research Initiatives in the department**

- Organized Samshodhana Samvaada to share the knowledge within the faculty members of the department.
- Organized research lectures by speakers from Research & Development wings of institutes and industries of national importance to strengthen the research ambience in the department.
- A survey is made on the gaps inhibiting research among the faculty members and strategies were framed to overcome the obstacles.
- Individual research plan was prepared by each faculty member to set themselves a mission for the coming years and work with a focus and progress in their core research areas.
- Faculty members are encouraged to do internship in renowned industry/ research institutions.





### **Innovative teaching learning methods adopted**

- **Flipped classes** to spend more time on discussing the concepts in the class that requires students coming to the class with prior preparation of the concept.
- **Switched Classes** to know the impact of teaching and understand it from the student perspective.
- **Comprehending** about a concept through Pick and Write event -Dr.Arunkumar B.R. for the course Operating Systems.
- **Mind maps** to remember the hierarchical complexity in the concepts – Ms.M.Sridevi for the course Software Engineering.
- **Crossword puzzles** to understand the concept in depth and yet to memorize each concept in simple terms – Ms.M.Sridevi for the course Advanced Java Programming.
- **Cognitive concept reminders** to avoid confusion between the similar concepts and elaborate the key words to present the concept efficiently - Ms.M.Sridevi for the course Big Data Analytics.
- **Crack the Code** sessions to think over the logic of the code and guess the output and subsequently validate it – Ms.M.Sridevi for the course Data Structures using C.

### **Collaborative/Cooperative learning methods adopted**

- **Problem based learning** to apply theoretical concepts to the real world problems – Dr.Arunkumar B.R. for the course Object Oriented Modelling and Design Patterns.
- **Case Study based learning** – Ms. Drakshaveni for the course Software Testing, Mr.Shivakumara T for the course Java Programming, Ms.Nirupama for the course Network Cryptography and Security.
- **Role play** – Mr.Dwarakanath G.V. for the course Computer Networks.
- **Recap of completed chapters** by the students -Ms.Aparna K. for the subject Database Management Systems.
- **Poster preparation** – Ms.Reshma C.R. for the course NoSQL.
- **Quiz** – Ms.M.Sridevi for the course Bid Data Analytics.
- **Project Based Learning** problems given to students by all the faculty members in topics related to the subjects but outside the syllabus and which serves as Value addition to the knowledge gained through the courses. IV sem students have worked on 21 datasets to perform analysis and derive valid conclusions from them.

### **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.

### **Back to Basics Program**

Designed to make a structured delivery of bridge courses to bring the students that would be admitted into MCA from diversified streams into the main stream of the program.



### **Department Advisory Board**

The Department Advisory Board (2016-2019) formation was finalized in July, 2016 with the following members to meet at regular intervals to deliberate on various aspects such as current curriculum of the program, programme outcomes, curriculum gap, bridging the gap between academia and industry expectations, new Value-Added Courses to be introduced, research initiatives, joint collaborations to progress in research and consultancy.

Sl	Name	Address	Designation
1	Dr. Arunkumar B R	Professor & Head, Department of MCA, BMSIT&M	Chairman
2	Dr. Dinesha	Professor, IIITB, Bengaluru	Member (Academia)
3	Dr. Hanumanthappa M	Professor and Chairman, Department of Computer Science & Applications, Bangalore University, Bangalore.	Member (Academia)
4	Dr. Deepak D'Souza	Assistant Professor, Dept. of Computer Science & Automation, Indian Institute of Science, Bangalore.	Member (Research)
5	Dr. Rajan M A	Research Scientist Innovation Labs, Tata Consultancy Services, Bengaluru	Member (Research)
6	Mr. Mahabalesha C	Senior Technical Lead, TCS, Bengaluru	Member (Industry)
7	Dr. Ramsuri Narayanam	Research Scientist, IBM Research	Member (Research)
8	Mr. Jagannath	Parent	Member
9	Mr. P Ganesh	Associate Professor, Dept. of MCA, BMSIT&M	Member (Faculty)
10	Dr. Aparna K.	Associate Professor, Programme Accreditation Coordinator, Dept. of MCA, BMSIT&M	Member (Faculty)
11	Mr. Bikram Panjekar	Alumni & Entrepreneur, Technical Lead - ABB	Member (Alumni)

### **Staff Recognition**

Dr. Arunkumar B.R. is nominated by VTU as BoS member – MCA for Nitte Meenakshi Institute of Technology, Bengaluru (Autonomous) for the duration of 2018-2020.

Dr. Arunkumar, Professor & HoD, chaired a session in the Fifth International Conference on Emerging Research in Computing, Information, Communication and Applications-2018 organized by NMIT, Bengaluru on 27<sup>th</sup> and 28<sup>th</sup> July, 2018.



**Invited Talks delivered by faculty of the MCA outside BMSIT&M**

1	Mr.Venkatesh delivered a talk on “Software Testing” to the students of MCA at Sambram Institute of Technology on March 21 <sup>st</sup> , 2018.
2	Mr. Dwarakanath delivered a talk on “Recent Trends in Software” on Feb 26 <sup>th</sup> , 2018 at Home Science Women First Grade College, Bengaluru.
3	Mr. P.Sudarsanam, Asst. Professor has delivered talk on “How to prepare PPT” for M.Com students at SSMRV college, Bangalore on 09/07/2018.

**Open Short-Term Course**

Dr. Aparna K, Assoc. Professor, and Ms. M. Sridevi, Asst. Professor participated as a resource person in the 6-day Open Short-Term course on “Data Analytics/Visualization with Case studies using Modern Tools” organized by Dept. of MCA, BMSIT&M, in association with Gramener Technologies Pvt. Ltd. as part of CSI Student Chapter Activity held between 5<sup>th</sup> and 10<sup>th</sup> Feb 2018. Dr.Sateesh S Kannegala, Professor at Trans Disciplinary University and CSI Chairman, Karnataka Region delivered the keynote address. Mr. Ranjan and Mr. Sowmya, Data Consultants from Gramener took day long sessions on Web Scraping and Exploratory Data Analysis. Ms.Aparna K. conducted hands-on sessions on R Programming and Ms. M. Sridevi delivered sessions on Jupiter Notebooks, Python libraries like Pandas, Numpy for Data Analytics and Matplotlib for Data Visualization with hands-on case studies.



**Invited Talks delivered by faculty of the MCA within BMSIT&M**

1	Dr. Arunkumar BR has delivered a talk on “Cyber Law: Its need and Importance on as a part of Jnanavardhana, BMSIT&M on 6/7/2018
2	Mrs. M.Sridevi delivered a talk on “Reverse Innovation” on March 21 <sup>st</sup> , 2018 at the Innovation Center, BMSIT&M.
3	Dr. Arunkumar B.R., Professor & Head, Dept. of MCA, delivered session on “Applications of Graph Theory in Mathematical Modelling of Research Problems” in the 5-day FDP on “Mathematical Modelling for Research problems” organized by Dept. of MCA, from 25 <sup>th</sup> to 29 <sup>th</sup> June 2018.



4 Dr. Aparna K, Associate Professor, Dept. of MCA, delivered session on “Importance of Mathematical Modelling for Research” in the 5-day FDP on “Mathematical Modelling for Research problems” organized by Dept. of MCA, from 25<sup>th</sup> to 29<sup>th</sup> June 2018.





**Samshodhana Samvaada**

The department has organized research discussion under the title “**Samshodhana Samvaada**”. This event provides a platform for all the faculty members to share their knowledge and deliberate on their area of research. The faculty members have given presentation on the following topics:

Sl. No.	Faculty	Topic
1	Dr. ArunKumar BR	Preparing OBE course plan: A case study of Operating system
2	Ms. Aparna K	Introduction to R programming
3	Dr. Nagabhushan SV	Technique for Order of Preference by Similarity to Ideal Solution
4	Dwarakanath GV	MANETs
5	Shivakumara T	Data Leakage and security
6	Reshma CR	Under water sensor networks
7	Drakshaveni G	Software Testing
8	Nirupama	SSL Architecture
9	Sridevi M	Demonstration of Rapid Miner tool for predictive modeling
10	Venkatesh A	Cyber Security
11	P Sudarsanam	Parallel Computing

**Research Papers published in International Journals:**

1	Reshma C R and Dr. Arunkumar B R published a research paper entitled “Modelling of Cognitive Radio for Vehicular ad-hoc Sensor Network Using Graph Theory Concepts” in ISORJEN, September 2017, volume-17, Issue 9, e-ISSN: 2250-3021.
2	Shivakumara T, Muneshwara MS, Lokesh, Dr. Rajashekhar Patil, published paper titled “To incorporate value-added security features into current data for outsourcing cloud data applications through Secured Access Control and Assured Deletion” in International Journal of Emerging Trends & Technology in Computer Science (IJETTCS), Volume 7, Issue 3, May - June 2018, ISSN 2278-6856.

**Research Papers presented in the International Conferences:**

1	M.Sridevi and Dr. Arunkumar B.R. presented a paper titled “Performance Evaluation of Quantitative Data Analysis Methods in the Prediction of Angiographic Disease Status” in the Third IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT 2018)”, organized at SVCE, Bengaluru, from 18 <sup>th</sup> -19 <sup>th</sup> May, 2018.
2	Reshma C.R and Dr. Arunkumar B.R. presented a paper titled “Random Connectedness in Vehicular Ad-hoc Network by Managing Dynamic Spectrum in CRN” in the Third IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT 2018)”, organized at SVCE, Bengaluru, from 18 <sup>th</sup> -19 <sup>th</sup> May, 2018



**Faculty Participation in Workshops:**

1	M Sridevi attended one day workshop on “CDIO Approach to Engineering Education”, held on 30 <sup>th</sup> Oct, 2017 organized by BMSCE, Bengaluru.
2	Mr.Sudarsanam P. attended a 6-day workshop on “Advances In Wireless Communication Using NS3” from 11-12-17 to 16-12-2017 at Rajarajeshwari college of Engineering, Bangalore.
3	P.Ganesh has attended one week FDP on “Cloud Based IoT Programming” at MS Ramaiah Institute and Technology, Bangalore from 16--01-2018 to 21-01-2018.
4	Aparna K has attended a 3-day hands-on FDP on “Data Analytics and Machine Learning using R software”, organized by Dept. of Electronics and Communication Engineering, BMSIT&M (22 <sup>nd</sup> to 24 <sup>th</sup> Jan 2018), Bengaluru.
5	Dr.Arunkumar.B.R. Reshma C.R., Shivakumara T have attended two days national workshop organized by National Cyber Safety and Security Standards at RRCE, Mysore road, Bengaluru on 23 <sup>rd</sup> and 24 <sup>th</sup> June, 2018.
6	M.Sridevi and Reshma C.R. attended a 5-day workshop on “Applications of Probability and Statistics” organised by the Dept. of Mathematics, BMSITM from June 4 <sup>th</sup> to 8 <sup>th</sup> , 2018
7	Aparna K attended 2-day workshop on “How to write fund-winning research proposals” conducted on 8 <sup>th</sup> and 9 <sup>th</sup> June 2018 by Team Samshodhan at BMSITM.
8	Dr.Arunkumar B.R., P.Ganesh, P.Sudarsanam, Venkatesh A, M.Sridevi, Reshma C.R., Shivakumara T, Nagabhushan S.V. has attended/organized work shop on “Mathematical modelling for Research problem” at BMS Institute and Technology and Management, Bangalore from 25-06-2018 to 29-06-2018.
9	Drakshaveni G attended Workshop On “Social Media Strategy “organized by Google Digital Garages at Virgin Money Sheffield Lounge,66 Fargate, S1 2HE Sheffield, United Kingdom on held on 20 <sup>th</sup> June 2018
10	Drakshaveni G attended workshop on “Python “organized by Python Sheffield at Union St,18-20 Union Street, S1 2JP Sheffield, United Kingdom held on 26 <sup>th</sup> June 2018
11	Drakshaveni G attended workshop on “Agile Toolkits supporting Rapid Delivery/Game Storming “organized by Agile Sheffield at Electric Works, Sheffield Digital Campus, Sheffield S1 2BJ, Sheffield, United Kingdom, on held on 28 <sup>th</sup> June 2018
12	Drakshaveni G attended conference on “Developing Outstanding Mentoring across the SHU Partnership” at Charles Street Building, Sheffield Hallam University, City CampusS1 2ND Sheffield, United Kingdom on 29 <sup>th</sup> June, 2018.
13	Drakshaveni G has attended workshop on “DOT NET “organized by DOTNETSHEFFIELD at Sheffield Hallam University, Owen Building 942, City Campus, Howard Street, Sheffield, S11WB, Sheffield, United Kingdom held on 3 <sup>rd</sup> July, 2018.
14	Drakshaveni G. has attended Five days workshop on “Machine learning with Python “organized by Department of Information Science & Engineering, BMSIT&M, Bangalore from 23 <sup>rd</sup> to 27 <sup>th</sup> July, 2018.



**Workshops organized by the Department:**

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|---|---|
| 1 | IoT - Hands-on 3 days workshop was conducted from 22/09/2017 to 24/09/2017 in association with Apsis Technologies, Bangalore. Total 66 students participated in the workshop in which 34 are from Don Bosco College of engineering. Dr. Basavaraj, Professor & Head, Dept. of Computer Science, Govt. First Grade College also participated in the workshop. The workshop was started with the welcome speech of Dr. Arunkumar B R and continued by Mr. Nitin Awasthi, CEO, Apsis Technologies with his team. Within three days, the students are able to design IoT projects like Automatic fire detector, Fencing wall sensor, Moisture level finding sensor etc. |
| 2 | A 2-days workshop on “IPR/ Cyber Law & Security” was organized as a part of CSI Activity on 13 <sup>th</sup> and 14 <sup>th</sup> October, 2017. Dr. Manish kumar, Asst Professor, MCA, MSRIT, Dr. Arunkumar, Venkatesh A, Shivakumara from BMSIT were the resource persons. Dr. Manish kumar delivered hand-on session on penetration testing in cyber security.   |
| 3 | A 2-days workshop on “Computer Network Simulation” was organized as a part of CSI Activity on 15 <sup>th</sup> and 16 <sup>th</sup> October, 2017. Total 85 students participated in the workshop out of which 26 are from Sir. MVIT. Dr. Arunkumar BR and Dwarakanath were the resource persons.   |
| 4 | Mrs. Sridevi was the resource person for 2 days workshop organized on “Data Analytics and Visualization using Rapid Miner Tool” for the students of MCA department on 4 <sup>th</sup> and 9 <sup>th</sup> Oct, 2017.  |

**Expert Talks Organized by the Dept.:**

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|---|--|
| 1 | Mr. Vijay Nagaraj, Senior Manager – Finance, Corriant Tellabs, Bengaluru has delivered a talk on “Project and Financial Management” on Sep 27 <sup>th</sup> , 2017 to the students of MCA.   |
| 2 | Ms. Deepa from Success Harvest organization delivered a talk on “Entrepreneurship Skills” on Oct 6 <sup>th</sup> , 2017.   |
| 3 | Mr. Manjunath from Dynaminds Pvt. Ltd. delivered an expert talk on “Stress Management in Entrepreneurial Journey” on Oct 11 <sup>th</sup> , 2017.  |
| 4 | MCA Alumni Mr. Pundrik Vinayak delivered a talk on “TeraData in the Corporate World” on 13 <sup>th</sup> Oct, 2017. The speaker explained about the industry environment and mentioned the booming technologies with detailed description about “Terradata”. 30 students of MCA participated in the event. |

**Mr. Pundrik Vinayak addressing the audience**



**Faculty Achievements:**

- Dr. Arunkumar B.R. has qualified in the NPTEL 4 – Weeks Online course “Outcome Based Pedagogic Principles for Effective Teaching” by securing 85% and Elite Tag. The course was offered by IIT – Kharagpur.


- Ms. Aparna K has qualified in NPTEL Online course – “Introduction to R Software” by securing 94% along with Elite tag and Gold Medal. The course was organized by Professors from IIT Kanpur.


- Ms. M.Sridevi has qualified in the NPTEL Online course “Introduction to Modern Application Development” by securing 86%, stood as topper and got selected for 2 months Hasura Product Development Fellowship. The course was offered by IIT – Madras in association with Hasura Technologies Pvt. Ltd.


- Ms. Reshma C.R. has qualified in NPTEL Online course – “Introduction to Internet of Things”. The course was organized by IIT Kharagpur




- Mr. Shivakumara T. has completed 07 online courses viz. C++, HTML, SQL, PHP, Ruby, C#, and JS offered by SOLOLEARN.
- Mr. Sudarsanam P. has completed an online course on Python 3 offered by SOLOLEARN.
- Ms.M.Sridevi has qualified in the NPTEL 12 – Weeks Online course “Social Networks” by securing 86% and Elite Tag. The course was offered by IIT – Madras.
- Muralidhara KN completed online course in DBMS, C++, HTML, JAVA
- Ms. Aparna K successfully completed her final Ph.D. Viva-Voce on 31<sup>st</sup> May 2018.



**Ms. Aparna presenting her research work to DC**

- Shivakumara T completed Python 3 Tutorial online course – July 2018, cert-1073-8719825

### **Staff Achievements in Sports**

- Dr.Arunkumar B R won 2<sup>nd</sup> place in Javelin throw.
- Ms. Aparna K has won 3<sup>rd</sup> place in Badminton in Sports events held for Staff members on 24<sup>th</sup> Jan 2018 at BMSIT&M.
- Ms. M.Sridevi has won 1<sup>st</sup> place in Badminton in Sports events held for Staff members on 23<sup>th</sup> Jan 2018 at BMSIT&M.
- Ms. M.Sridevi has won 2<sup>nd</sup> place in Carroms in Sports events held for Staff members on 24<sup>th</sup> Jan 2018 at BMSIT&M.



**Faculty Internship Details:**

Sl. no	Name	Internship venue	Industry contact person and phone number	Date from - to	Outcome	How it will be taken forward
1	Dr. Arunkumar B.R.	Legal Desk-Desk Nine Pvt.Ltd	Mr.Krupesh Bhatt	14-23 June 2018 and 16-20 July 2018	Apply Block Chain concepts to the cyber security Problems	Apply learned concept to mentor Project Based learning/ internship to students on this cotemporary technology.
2	Mr. Ganesh P.	Krispyyapad	Mr. Suraj, 8310458967	11 <sup>th</sup> to 21 <sup>st</sup> July, 2018	Learning Hadoop	To implement in Research work
3	Dr. Aparna K.	Soptech Solutions Pvt. Ltd	Mr. Prabeen, 9845914011	11th to 23rd June 2018 (Except 18th June 2018)	Obtained knowledge on Search Engine Optimization	Student Internship
4	Dr. Nagabhushan S.V.	4SemiTech Pvt Limited Bengaluru	Mr. Vinayak 9880590099	9 <sup>th</sup> to 20 <sup>th</sup> Jan, 2018	Develop of software model for the internal requirement Management	Internship and consultancy work
5	Mr. Dwarakanath G.V.	XPIO Technologies	Mr. Krishna, Sr Software Engineer	22/6/2017 to 3/7/2018		Guide MCA students
6	Mr. Shivakumara T.	Horton Works	Sreelola Hegde shrilola.r@gmail.com	2 <sup>nd</sup> to 13 <sup>th</sup> July, 2018	Learned the concepts of Python	Knowledge dissemination



					and Security	
7	Mrs. Reshma C.R.	NewsX, Bengaluru		2 <sup>nd</sup> to 12 <sup>th</sup> July, 2018	Learned broadcasting models	Knowledge dissemination
8	Mrs. Nirupama	Edgar Interactive	Prasad Balaji 900810067	1-1-18 to 12-1-18	Manual testing	
9	Mrs. Sridevi M	Bluglass Software, Banaswadi, Bengaluru.	Mr.Vino Thomas, 9902325514	2 <sup>nd</sup> to 13 <sup>th</sup> July, 2018	Learnt applications of Big Data Technologies and its ecosystem	Student internships and probable consultancy work.
10	Mr. Venkatesh A.	Testers Connect	Mallikarjun - HR Manager: 8310123133	July 4 <sup>th</sup> to 20 <sup>th</sup> 2018	Learned basics of Automation	Guide student projects on Automation
11	Mr. Sudarsanam P.	APSYS Solutions	Mr.Shailendra Shukla 080-26320056	June 13 <sup>th</sup> to July 6 <sup>th</sup> , 2018 (with breaks)	Learned IoT and its applications	Student internships

**Details of the resource persons visited the department in 2017-2018:**

Sl	Name of the resource person with address	Visited for workshop/ seminar/ invited talk	Date of visit
1	Mr. Nitin Awasthi, CEO, Apsis Technologies with his team	Workshop on IOT	22 <sup>nd</sup> to 24 <sup>th</sup> Sep, 2017
2	Mr.Vijay Nagaraj, Senior Manager – Finance, Corriant Tellabs, Bengaluru	Expert talk on “Project and Financial Management”	27 <sup>th</sup> Sep, 2017
3	Ms.Deepa from Success Harvest	“Entrepreneurship Skills”	6 <sup>th</sup> Oct, 2017
4	Mr.Manjunath from Dynaminds Pvt. Ltd.	“Stress Management in Entrepreneurial Journey”	11 <sup>th</sup> Oct, 2017
5	MCA Alumni Mr.Pundrik Vinayak on 13 <sup>th</sup> Oct, 2017.	“TeraData in the Corporate World”	13 <sup>th</sup> Oct, 2017
6	Mr. Mahesh V G, Senior Group Manager from Mahindra Comviva, Bengaluru.	Partial Delivery of the Course on “Web Technologies”	9 <sup>th</sup> , 16 <sup>th</sup> & 23 <sup>rd</sup> Dec 2017



**MOUs**

Dept. of MCA has signed a MoU with KeySkillsHub.com for setting up Cyber Security and Software Testing Lab at the department to work on real-time projects and also obtain internship to the students.

**Partial Delivery of courses:**

Partial delivery of the course Cloud Computing (13MCA551) was done by SMEs Mr. Raj Yathi and Ms. Urma Haldar, DXC Technologies, Bengaluru. Upon the mutual consent, the following dates were decided for the conduction of the course. 43 students of 5<sup>th</sup> semester MCA had attended the PDC.

Date	Topic
08/09/2017	Introduction to Cloud Computing
13/09/2017	AWS Account creation, Initiation, Robotization
22/09/2017	AWS instance creation, Database connection
27/09/2017	Live Demonstration of Cloud Application Introduction to Azure Setup



**Participants of PDC**

- Mr.Shivakumara T. organized the Partial Delivery of the Course on “Web Technologies”. Resource Person is Mr. Mahesh V G, Senior Group Manager from Mahindra Comviva, Bengaluru. The PDC is scheduled during 9<sup>th</sup>, 16<sup>th</sup> & 23<sup>rd</sup> Dec 2017 for First Semester MCA students of 2017-2020 batch. The topics covered include XML, JSON, Web Service, PERL and CGI along with usage of web technologies in corporate world.



**HOD and the course coordinator inviting Mr.Mahesh V G**





### Achievements of the Alumni

- Mr. Abhilash D, 2014 passed out student of the Dept. of MCA received “Project Star Award” from his employer Cap Gemini.



### Alumni Interaction

- The Department of MCA organized alumni panel interaction-2018 on 24<sup>th</sup> Feb, 2018 at the Dept. of MCA. During the interaction, the alumni highlighted the following points.
  - Basic concepts are most important than any technologies. The technologies can be easily upgraded to, if one has very strong knowledge of basics.
  - Students should inculcate the right attitude towards the employment and employer, especially working in team.
  - The alumni agreed to mentor at least 2 students each. During mentoring, they will share knowledge to build the career, career guidance, real time / industrial case studies, open ended problem solving, etc.
  - All the faculty members of MCA were present for the panel interaction.





**HoD addressing the Alumni**

**Alumni giving suggestions to strengthen the Alumni network**



**Alumni with the Faculty Members of the Dept. of MCA**

- Alumni meet was held on 4<sup>th</sup> November, 2017. Many Alumni were present for the interaction and panel discussion with the faculty members on industry requirements and training the students in that direction.



**Introducing Alumni to Audience**

**All Alumni on the stage**

**Activities under “Joy of Giving” Club**

The Dept. of MCA organized an event by name “Joy of Admiring the Nature – OCHIBA Art Work” for the students of all departments of BMSIT&M on March 2<sup>nd</sup>, 2017 under “Joy of Giving” Club. The participants of the event arranged the fallen leaves in beautiful patterns as a tribute to the enchanting season cycle of nature.



**Students with their art work at display**

**Parent Teachers Meet (Odd Semester)**

Parents – Teachers Meet was organized on 25.11.2017 to discuss the performance of their wards in the current semester. At the outset, the HOD of the Department, Dr. Arunkumar B R welcomed all the parents. All the faculty members including Class Coordinators of I, III & V sem and Proctors of all students were present for the meet. The faculty members interacted with the parents about their ward’s attendance status and internal marks.



**Faculty members interacting with the parents**

**Even Semester**

Parents – Teachers Meet was organized by the Department of MCA on 28<sup>th</sup> April, 2018 to discuss the performance of their wards in the current semester.



**Dr. Arunkumar B.R. HoD, MCA , Staff and Parents' interaction**

**Industry – Institute Interaction:**

A team of 15 final year MCA students participated in one day industrial visit at DXC Technology, Electronic City, Bengaluru on 3rd October, 2017. Leaders present for the event – Mr.Sreekanth A – VP – iWFM & India Head, Mr.Dinesh Warrior – PPM – ITO Vertical leader, Mr. Anand D Silva – Associate Director – HR (Bangalore Cluster), Ms.Babitha – Global University leader, Mr.Nadeem Sayed – University Council lead – AGD.

<b>Time</b>	<b>Event</b>
9.00am - 9.30am	Welcome and registration
9.30am 10.30am	Campus Walk
10.50am - 10.55am	DXC Introduction Video
10.55am - 11.00am	Welcome Note to the guest and introduction to the leaders
11.00am - 12.00 Noon	Leadership connect
12.00 Noon - 1.00PM	Career Progression in PPM -ITO
1.00 PM - 1.30PM	Data Center Visit



**Participants of the visit with Ms.Babitha**



**Semester Toppers****ODD SEMESTER 2017**

<b>I SEM (SGPA)</b>	<b>III SEM (SGPA)</b>	<b>V SEM (Percentage)</b>
Ms. LAVANYA V 1BY17MCA11 (8.15)	Ms. RAJASHREE R 1BY17MCA82 (8.36)	Ms. SWEETY LADIA 1BY15MCA46 (82.19%)
Mr. K MAHESH 1BY17MCA10 (7.85)	Ms. KRUTHIKA C 1BY16MCA21 (8.24)	Mr. SACHIN JAIN 1BY15MCA37 (81.14%)

**EVEN SEMESTER 2018**

<b>II SEM (SGPA)</b>	<b>IV SEM (SGPA)</b>	<b>VI SEM (Percentage)</b>
Ms. BINDU D V 1BY17MCA05 (8.46)	Ms. BHAKTI KARALE 1BY16MCA06 (7.92)	Mr. RAJ NIRANJAN 1BY15MCA34 (98.4%)
	Ms. KRUTHIKA C 1BY16MCA21 (7.92)	
Mr. K MAHESH 1BY17MCA10 (8.46)	Ms. PAVANA K M 1BY16MCA29 (7.92)	Mr. ALOK KUMAR 1BY15MCA06 (97.60%)

**Research Day**

Research Day has been celebrated on Feb 2<sup>nd</sup>, 2018 to commemorate the formation of Department Research Council on the same day in 2017. A research talk was delivered by Dr. Shastry from IISc, Bengaluru.

**Dr. Shastry delivering the lecture****Open Day**

Project Exhibition – Open Day was conducted on May 18<sup>th</sup>, 2018. 21 PBL projects in Data Analytics & Visualization, 16 PBL projects in C++ and OS, and 55 final year MCA projects have been exhibited and judged by external evaluators. I and II prizes were awarded in each of the above categories.



**Adjunct Faculty**

**Mr. S. Vinayaka Babu**

Managing Director, 4Semi Technology India Pvt. Ltd.

Delivered a talk on IOT and its applications

Date	Time	Topic	No. of students present
25/4/2018	2:00 to 4:30 pm	IOT & its applications	43 students of II & IV sem MCA

**Qualification:** M.Tech in VLSI & Embedded Systems Bangalore University,  
MBA from IIM, Bangalore,  
Diploma in Electronics and Communications from Bangalore University.

**Vinayaka Babu** has 18+ years of experience in the semiconductor industry involving End to End product development, Business Development, Program Management and Application Engineering with key considerations on leveraging Global Marketing.

HE COMES WITH UNIQUE SKILLS REQUIRED FOR PRODUCT DEVELOPMENT LIKE UNDERSTANDING TECHNOLOGIES, ARCHITECTING SOLUTIONS, INTERACTION WITH CORPORATE LEVEL, DEVELOPING ALLIANCES, CONDUCTING PORTFOLIO ANALYSIS AND WORKING AS A TEAM.

Currently he is working in 4Semi Technology India Pvt. Ltd. as MD for last 5 years. His core development is in the area of Embedded and VLSI designs. Most of the products are designed for Industry and defence applications. Prior to this, he worked as Business Development Manager at Cypress Semiconductor for 6 years and his responsibilities were Business creation and fulfilment of activities for Non-volatile Memory to meet the division targets.

Prior to Cypress, he worked in Arrow Electronics, India as Product marketing manager for 5 years being responsible for revenue and handling Cypress, Philips, ST and Toshiba product lines. Initially he started his career with Electro Systems, Bangalore as R&D engineer during which he worked on microcontrollers and microprocessor-based emulators for 4 years.

**Recent Key Achievements**

- Memory Imaging Division Achievement Award for Excellence in PSOC based Emulation System to demonstrate NVSRAM products – Dec 2006
- Best author award for NVSRAM article – Electronics for You, June 2007
- An engraved plaque given in recognition of efforts in the development of NPP the First Silicon Fully functional nvSRAM on the 0.13micron technology in August 2007
- Published NVSRAM Article in USA, Taiwan and Germany 2008
- Associate Certificate PSOC Mixed Signal Array 2008
- In Cypress, he got the Best Manager Award for Great mentor and motivator, systematic and detail oriented for year 2008.
- Published Digitally Controlled Delay Lines Article in IOSR Journal 2016
- Published Fault Detection and Diagnosis Article in IOSR Journal 2016
- Attended as Chief Guest for colleges and was chairperson for sessions in National Conference's for the last 4 years.





**Placement Details**

The following students got paid internships in the companies mentioned below as on Feb, 2018.

Sl. No.	USN	Name	Company
1.	1BY15MCA49	Vishnu Krishnan	Moolya Software
2.	1BY15MCA15	Keerthi Prabhu K	
3.	1BY15MCA40	Sri Raksha K	
4.	1BY15MCA38	Sagar K	
5.	1BY15MCA19	Lekhika K J	Cerner
6.	1BY15MCA27	Mrinal Dutt	
7.	1BY15MCA32	Priyanka S K	
8.	1BY15MCA37	Sachin Jain	Simeio
9.	1BY15MCA34	Raj Niranjana	Aricent
10.	1BY15MCA36	Rohit Kumar	
11.	1BY15MCA41	Sunny Kant Kumar	Fidelity
12.	1BY15MCA43	Suraj Prasad	
13.	1BY16MCA73	Girish U	
14.	1BY16MCA80	Rakshitha R	Nokia
15.	1BY15MCA05	Akshaya V S	
16.	1BY15MCA06	Alok Kumar	
17.	1BY15MCA10	Chaman Prabhat C	
18.	1BY15MCA30	Pooja K	
19.	1BY15MCA46	Sweety Ladia	Bosch
20.	1BY15MCA31	Preethi H	
21.	1BY15MCA04	Akshay K V	
22.	1BY15MCA03	Afrash Ahmed kan	First Global software
23.	1BY15MCA07	Alok P	
24.	1BY16MCA79	Ragavendra B	
25.	1BY15MCA45	Swathi	
26.	1BY15MCA14	Jayanthi	Future Solutions
27.	1BY16MCA75	Jaffer Shariff	
28.	1BY15MCA22	Manohar	
29.	1BY15MCA28	Naveen G	Nexams

**Memorable Moments**

- Orientation Program was organized to Freshers and Lateral Entry students on 4<sup>th</sup> November, 2017.



Student of MCA performing on the Orientation Day

**NBA Visit**

NBA Expert Team Visit was held from 23<sup>rd</sup> to 25<sup>th</sup> Feb 2018.



NBA expert team interacting with the staff