



From the Principal's Pen

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

I am very glad to know that the Department of MCA is publishing the next edition of its newsletter 'Agratha'. It is important to note that the staff and students of the department are not only keen on publishing a quality newsletter but also make it on time.

While it is important for the department to facilitate intellectual talent of students to flourish, it is equally important to nurture their literary and cultural talents, and provide enough space to showcase them. I am sure that the department is sparing no effort to make this happen. Hence, I hope that students are enjoying their academic and personality development activities in the department.

We know that every little work has a host of activities to be completed sincerely, before it is done. So is the making of this issue. The dedicated effort of the people responsible for bringing it out is clearly evident. I am confident that the staff and students of the department have put in their best to make sure that the newsletter is second to none. I heartily congratulate them all!



Words from the Chief Editor

Dr. Arunkumar B.R.
Professor & Head
Dept. of MCA

“EXCELLENCE IS NOT A SKILL, IT IS AN ATTITUDE”

Excellence is about having a positive ‘can do’ attitude, a willingness to work hard to achieve goals, a pride in your own work and a desire to do your best. It is also about being able to make mistakes and learning from them. As a chief editor of department newsletter, “Agratha”, and Head, Dept. of MCA, I am very much delighted and proud to share the third newsletter of MCA. I take this opportunity to express my appreciation for the excellent work being done by the MCA team on significant issues such as Teaching Learning Processes (TLP), research publications, new initiatives, students’ performance, continuous improvement and many more.

It gives me an immense pleasure to give you the crux of the newsletter which showcases some of the points mentioned above from August 2015 to July 2016. Agratha explains you the department accomplishments in terms of semester results, VTU level ranks, placements, paper publications/ presentations details, value added courses offered, innovative/collaborative teaching method adopted, faculty internship, organization of expert talks, seminar, workshop, conferences and partial delivery of classes, formation of Dept. Advisory Board, participation in faculty development programmes and invited talks delivered. I highly appreciate the dedication and team work shown by Ms. M. Sridevi, Asst. professor & Editor, Mr. Muralidhara K.N, Technical Staff and student coordinators Mr. Vasuki and Mr. Ramanand Hegde of V Sem., MCA in bringing this newsletter at its best.

It is my honour to express my gratitude to the Principal and management for support and guidance in all our endeavours including the release of third Volume of Agratha 2015-16



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, Belgavi. 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.

BMSIT&M is ranked 17th in India in Top 100 Private Engineering College Survey 2015 by the Higher Education Magazine. BMSITM has been awarded as the "Emerging Technical Institute in Karnataka" by CMAI in association with VTU. Some of the companies with which the institute signed MOUs are KPIT, BOSCH, IBM and TEXAS Instruments.



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 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 7 Research Programmes. As on 2015-16 number of faculty members with Ph.D is 33, Ph.D scholars are 82. Institution has conducted several significant events such as Tech Transform-2016, Start-Up Meet, BMSIT&M-CII Roadshow etc.

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.

BMSIT&M is honoured with Outstanding Engineering Institute-South by Vijayavani National Leadership Award.

BMSIT&M 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 IT professionals by providing technical education and research orientation to augment human resource capital

Department Mission

Facilitate effective learning environment through quality education and guidance with state-of-the-art facilities to orient students towards better employment opportunities and research.

Programme Educational Objectives (PEOs)

PEO1: Excel as IT professionals and have a successful career.

PEO2: Acquire various skills and serve at different positions/roles in their respective domains.

PEO3: Adapt themselves to the changing IT requirements through lifelong learning.

Programme Outcomes (POs)

PO1: Apply knowledge of computing fundamentals to provide IT solutions.

PO2: Identify and analyse IT problems using fundamental principles of computing sciences.

PO3: Design, develop and evaluate software components to meet industrial/societal needs.

PO4: Design and develop programs to provide valid conclusions based on the results of execution.

PO5: Apply appropriate techniques and use modern tools for software engineering problems.

PO6: Understand professional ethics, cyber regulations, and responsibilities.

PO7: Engage and learn independently for continual development as an IT professional.

PO8: Apply software engineering principles to manage IT projects & analyse cost estimation.

PO9: Comprehend, write effective reports and make quality presentations.

PO10: Understand the impact of IT solutions on socio-environmental issues.

PO11: Function effectively as an individual as well as in diverse teams.

PO12: Identify opportunities for value addition of individuals and society.

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 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 7 VTU Ranks and placement of nearly 90% since its inception. The faculty members are involved with an array of research interests such as Wireless Networks (Cognitive, Ad-hoc and Sensor networks), Network security, Cloud Computing, E-Commerce, Data Mining and Digital Image Processing among others.



Dept. has organized series of Technical/Expert Talk, Workshops, Conferences, Industrial Visits, Alumni Interaction, Parents Teachers Meeting, Project work Evaluation/Exhibition, 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 organizes partial delivery of courses (PDC) by the industry experts as adjunct faculty for the several courses such as DBMS and J2EE with objectives of understanding applying/analyzing industrial application of the core subjects and current versions of the subject.

Dept. of MCA has adopted several best practices as a part of its Teaching and Learning Processes (TLP) with OBE model, to name a few, PDC, Co-operative Learning, Continuous Evaluation, offering Value added Courses(VAC) to enhance student competency and make 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 on 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.

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 leadership of Dr. Arunkumar B.R., 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 No	Name of the staff member	Qualification	Designation	Research Area
1	Dr. Arunkumar B.R.	MCA, M. Phil., M.Tech. (CSE), Ph.D. (CS), PGDIPR (NLSIU)	Professor & HOD	Computer Networks, Data Mining, Cloud Computing, Software Engineering & IPR
2	Mr. Ganesh P.	M.C.A.	Associate Professor	Cloud Computing
3	Ms. Aparna K.	M.C.A., M. Phil	Associate Professor	Data Mining
4	Mr. Nagabhushan S.V.	M.C.A.	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	Software Engineering
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	Data Mining & Social Network Analysis
11	Mr. Venkatesh A.	M.C.A.	Assistant Professor	Sensor Networks
12	Mr. Sudarsanam P.	M.C.A., M. Tech.	Assistant Professor	Grid Computing

Technical Staff

SL. No.	Name	Qualification	Designation
1	Mr. Shashikiran J.S.	DCSE	Instructor
2	Mr. Murulidhara K.N.	DCSE	Assistant Instructor

PhD Status of the faculty members

Completed comprehensive viva – Mr.Nagabhushan, Ms.Aparna, Mr.Sudarsanam P.
 Completed course work – Ms. M.Sridevi, Ms.Reshma C.R., Mr. Shivakumara T,
 Mr. P.Ganesh, Ms.Drakshaveni G., Mr. Venkatesh A.
 Completed registration-Mr.Dwarakanath G.V.

Professional Body Membership & Ph.D. Status Details

SI No	Faculty Name	Designation	Membership Number	Ph. D. Status/ Research Guidance
1	Dr. Arunkumar B R	Professor & Head	MCSI-00135953 ISTE-LM 45448 LM CRSI L/181 MIAENG MISRN LMIETE M 500221	Guiding 05 Ph.D. research scholars
2	P Ganesh	Associate Professor	ISTE-LM52360	Course work: Completed Comprehensive viva: Submitted
3	Aparna K	Associate Professor	CSI - LM00146827 ISTE - LM52361	Course work: Completed Comprehensive viva: Completed



4	Nagabhushan S V	Assistant Professor	ORSI – Operation research Society of India -1215/L/N/16	Thesis Submitted
5	Dwarakanath G V	Assistant Professor	ISTE LM 44209	Registration Completed
6	Shivakumara T	Assistant Professor	ISTE-LM92649	Course work: Completed
7	Reshma C R	Assistant Professor	ISTE, LM110654	Course work: Completed
8	Drakshveni G	Assistant Professor	CSTA	Course work: Completed
9	Nirupama B K	Assistant Professor	ISTE-LM93814 ISCA LM29016	Not yet Registered
10	Sridevi M	Assistant Professor	ISTE LM 52363 ISCA L29017	Course work: Completed
11	Venkatesh A	Assistant Professor	ISTE LM93723	Course work: Completed
12	Sudarsanam P	Assistant Professor	ISTE LM93724	Course work: Completed Comprehensive viva: Completed

Research Initiatives in the department

- To organize Samshodhana Somvaada to share the knowledge within the faculty members of the department.
- To organize 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.



Innovative teaching learning methods adopted

- **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 Software Engineering.

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 Modeling and Design Patterns.
- **Storytelling** and understanding its help in the corporate world to make a concept or topic reach the targeted audience with clarity while sustaining the interest in them – Ms.M.Sridevi for the course Software Engineering.
- **Case Study based learning** – Ms.Drakshaveni for the course Software Testing, Mr. Shivakumara T for the course Java Programming, Ms.Nirupama B.K. for the course Network Cryptography and Security.
- **Role play** – Mr.Dwarakanath G.V. for the courses Data Structures and 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.
- **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.

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.

**Value Added Courses Offered in Even Semester 2015-2016**

Dept. has identified the elective subjects for which there was no lab sessions as per VTU curriculum. To improve student learning and enhance competencies, following labs are offered

SI No	Subject	Course Coordinator
1	Big Data Analytics Lab	Mrs. Sridevi M
2	Mobile Application Development Lab	Mr. Shivakumara T
3	NoSQL Lab	Mrs. Reshma C R
4	Software Testing Lab	Mrs. Drakshaveni G

Inauguration of First Semester MCA Classes

Orientation program was conducted in the Department for I sem MCA students on 23rd September 2015. Dr. Arunkumar B R, HOD, briefed the students about the rules and regulations of VTU and the Department. The placement details were given by Prof. Ambika of Placement and Training Cell. Prof. Aparna K, Assoc. Prof. briefed the students about OBE/Accreditation. Brief details about the Anvaya Forum activities were given to the students by Prof. M Sridevi, Asst. Prof. The orientation program was concluded with tea/snacks.



Dr. Arunkumar BR, HOD addressing during Orientation

**Department Advisory Board**

The Department Advisory Board (2016-2018) 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. No	Name	Address	Contact Details	Designation
1	Dr.Arunkumar B R	Professor & Head, Department of MCA, BMSIT&M	E-Mail: arunkumarbr@bmsit.in	Chairman
2	Dr. Dinesha	Professor, IITB, Bengaluru	E-Mail: dinesha@iiitb.ac.in Off. Ph: 080 - 41407777	Member (Academia)
3	Dr. Hanumanthappa M	Professor and Chairman, Department of Computer Science & Applications, Bangalore University, Bangalore.	E-Mail: hanu6572@hotmail.com E-Mail: hanu6572@bub.ernet.in Off. Ph: 080-22961451 / 22961454 Res. Ph: 080-23438168	Member (Academia)
4	Dr.Deepak D'Souza	Assistant Professor, Dept. of Computer Science & Automation, Indian Institute of Science, Bangalore.	Off. Ph: (+91-80) 2293 2468 Direct - 22933142 Fax - 2360 2911 Res. Ph: 2221 9759, 51120422 E-Mail: deepakd@csa.iisc.ernet.in	Member (Academia)
5	Dr.Rajan M A	Research Scientist Innovation Labs, Tata Consultancy Services, Bengaluru	E-Mail: rajan.ma@tcs.com Ph: 080 67258558	Member (Research)
6	Mr.Mahabalesha C	Senior Technical Lead, TCS, Bengaluru	E-Mail: c.mahabalesha@tcs.com	Member (Industry)
7	Dr.Ramsuri Narayanam	Research Scientist, IBM Research, India	E-Mail: ramasurn@in.ibm.com	Member (Research)
8	Mrs.K R Thejashree	Parent	E-Mail: thejashreekr2@gmail.com	Member (Parent)
9	Mr.P Ganesh	Associate Professor, Dept. of MCA, BMSIT&M	E-Mail: pganesh@bmsit.in	Member (Faculty)




10	Ms.Aparna K.	Assoc. Prof., Programme & Accreditation Coordinator, Dept. of MCA, BMSIT&M	E-Mail: aparnak@bmsit.in	Member (Faculty)
11	Mr. Bikram Panjekar	Alumni & Entrepreneur, Technical Lead - ABB	E-Mail: bpanjekar1985@gmail.com	Member (Alumni)



Staff Recognition

- Dr.Arunkumar B.R has been appointed to review the papers of International Journal of Information Technology & Software Engineering in the month of July/August 2015.
- Dr.Arunkumar B.R has been appointed as BoE, External Member, Bangalore University, 2015-16 to 2017-18
- Dr.Arunkumar B.R has been appointed as a member of Editorial Advisory Board member for the International Journal of Computer Applications and IOT, ISSN: 2454-9274.
- Editorial Board member of the Journal : International Journal of Sensor Networks & Data Communication (USA)
- Nagabhushan S.V, co-authored a paper titled “Supplier selection in E-procurement using TOPSIS Method”, and presented it Symposium held at IISc, Bangalore was awarded as Best Paper.

Invited Talks delivered by faculty members of the department outside BMSIT&M

1	Dr.Arunkumar B.R, Professor and Head, dept. of MCA has delivered Technical Talk on “Cross layer design for quality of service multicasting in mobile ad hoc networks” in March 2016, in the Gnanavardhana Programme being conducted every week where Principal, Dean, HoDs,Professors and Associate Professors take part in the programme to share the knowledge.
2	Ms. Aparna K, Associate Professor, Dept. Of MCA, was invited as a Resource person to deliver a talk on “Introduction to Data Mining Concepts” by the Department of Computer Science, Maharani Lakshmi Ammanni College for Women, Bengaluru on 9 th March 2016. The final year students were addressed about the various issues and applications of Data Mining.
	
3	Dr. Arunkumar B.R has delivered a technical talk on “Cyber Security and Students’ Roles and Responsibilities as a part of Cyber Ethics” at Bangalore University on 10-5-2016 to MSc/MCA/Ph.D-CS research scholars as a part of Special Lecture Series organized by Computer Science department.



4	Ms. M.Sridevi has delivered an expert talk on “Big Data & Hadoop Eco System” at the Sambram Institute of Technology to the students of Dept. of MCA on 27-04-2016.
5	Prof. Shivakumara T. have disseminated knowledge on 14 th July, 2016 on how high school students adopt technology to improve their understanding of concepts and also discussed the importance of English language in higher education.
	
<p align="center"><u>Invited Talks delivered by faculty members of the department within BMSIT&M</u></p>	
1	Ms. M.Sridevi, Asst. Professor, Dept. of MCA delivered a talk on “Awareness on NPTEL and MOOC” on 12 th February, 2016 and provided the students all the information required to take up online courses and certification exams that would be a value addition to their curriculum.
	
<p align="center">Ms.M.Sridevi delivering the session on NPTEL and MOOC</p>	
2	Ms. Aparna K, Assoc. Prof, Dept. of MCA delivered a talk on “Innovative Teaching-Learning methods” and provided an orientation about MOOC and NPTEL online courses for the MCA program in particular on 12 th Feb 2016.
3	Invited talk was delivered by Mr.Shivakumara T on “Advances in Java” in ISE Department, at BMSIT, on 5th Nov 2015.
<p><u>Research Papers published in International Journals</u></p>	
1	Dr. Arunkumar B.R., Professor and Head, Dept. of MCA, presented a paper in International Conference on Data Engineering and Communication Systems-2015, organized by RNS Institute of Technology, Bengaluru on 28 th & 29 th December, 2015, titled “Comparison of Mono-alphabetic cipher with Di-alphabetic cipher in terms of time complexities” co-authored by Mr.Mohit, V semester MCA and the paper has been published in the Scopus Indexed International Journal, Journal of Applied Engineering Research.
2	Dr. Arunkumar B.R. published a research paper entitled “Relevance of Bhagavad-Gita in NBA graduate attributes for Quality assurance”, in International Journal of Research in Science and Technology, ISSN: 2394-9554, August/September issue, 2015.



3	Dr. Arunkumar B.R. published a research paper entitled "A look at Quality of higher education in India and Significance of Out Come Based Education Model for higher quality", in International Journal of Research in Management & Social Science, having ISSN: 2322 – 0899 in August issue,2015.
4	Reshma C. R., Dr. ArunKumar B. R. published a research paper entitled "Spectrum Scheduling using Markov Chain Model in Cognitive Radio Networks", IOSR-JCE, e-ISSN: 2278-0661,p-ISSN: 2278-8727, Volume 17, Issue 4, Ver. II (July – Aug. 2015).
5	Aparna K and Mydhili K Nair, authored, a paper titled "HB-K Means: An Algorithm for High Dimensional Data Clustering using Bisecting K-Means", International Journal of Applied Engineering Research (IJAER), Vol 10, Number 14, August 2015, pp. 34945 – 34951, Scopus Indexed Journal, ISSN: 0973-4562.
6	P. Ganesh, D Evangelin Geetha, T V Suresh Kumar authored the paper titled "Software Performance Engineering for Cloud Applications – A Survey", International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC) ISSN: 2321-8169, Vol. 4, Issue 2, February 2016, pp.263-267. Scientific Journal Impact Factor(SJIF) – 5.837 Indexing: Index Copernicus.
7	P.Ganesh authored a paper titled "Impact Of Resource Management And Scalability On Performance Of Cloud Applications– A Survey", International Journal of Computer Science, Engineering and Applications (IJCSEA), Vol 6, Issue 4.
8	Nagabhushan S.V, Multi-Item Multi-Attribute Procurement Model, SS International Journal of Multidisciplinary Research, Vol 2, Issue-7, ISSN: 2395 - 7964 pp 117-123, IF 2.96, 2016, WEB: http://www.ssijmr.Sspublications .co.in
9	Aparna K and Mydhili K Nair, authored, a paper titled "Incorporating Stability and Error-Based Constraints for a Novel Partitional Clustering Algorithm", International Journal of Technology (IJTech), Vol 7, Issue 4, April 2016, pp. 691 – 700, Scopus Indexed Journal, ISSN: 2086 – 9614, DOI: http://dx.doi.org/10.14716/ijtech.v7i4.1579

Research Papers presented in the International Conferences

1	A research paper entitled "Framework for Surplus Food Management using Data Analytics" authored by Ms.M.Sridevi and Dr.Arunkumar B.R. was presented by Ms.M.Sridevi in the Sixth International Conference on Computational Intelligence and Information Technology – CIIT 2016 held in Cochin on 14 th May, 2016 organised by IDES in association with ACEECOM and proceedings published by McGraw-Hill Education.
2	A research paper entitled " Topological Analysis of K-Connected MANET using Connectivity Index, Euclidian and Randic Energy" authored by Dr. Arunkumar B.R and Ms. Kavya L Hegde of 6th semester MCA has been presented by Ms.Kavya L Hegde in IEEE international Conference-RTEICT-2016 held at SVCE, Bengaluru on 20 th -21st May, 2016.
3	A research paper entitled "Effect of Outlier Detection on Clustering Accuracy and Computation Time of CHB K-Means Algorithm", was presented by Ms.Aparna K at the International Conference on Computational Intelligence in Data Mining – ICCIDM - 2015, Bhubaneswar, Odisha, on 5 th & 6 th December 2015. Proceedings published in AISC Springer Series (Volume 411) pp 25-35, Print ISBN: 978-81-322-2729-8, Online ISBN: 978-81-322-2731-1, DOI 10.1007/978-81-322-2731-1_3.

**Research Papers presented in the National Conferences**

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|---|---|
| 1 | Mr. Nagabhushan S.V. presented a paper entitled "Design of Multi Team Multi Attribute Procurement Model using Topsis," in the 2 nd National Conference on Recent Trends in Information Technology, 21 st – 22 nd June, 2016 organized by Dept. Of ISE, CSE & MCA, BMSIT&M, Bengaluru. Proceeding published by International Journal of Computer Applications. |
| 2 | Ms. Reshma C R and Dr.Arunkumar B.R. presented a paper entitled "A Literature Survey on Spectrum Management in Software Defined Radioby Using Game Theory Concepts," in the 2 nd National Conference on Recent Trends in Information Technology, 21 st – 22 nd June, 2016 organized by Dept. Of ISE, CSE & MCA, BMSIT&M, Bengaluru. Proceeding published by International Journal of Computer Applications. |
| 3 | Ms. M.Sridevi and Dr.Arunkumar B.R. presented a paper entitled "Information Extraction from Clinical Text using NLP and Machine Learning – Issues and Opportunities," in the 2 nd National Conference on Recent Trends in Information Technology, 21 st – 22 nd June, 2016 organized by Dept. Of ISE, CSE & MCA, BMSIT&M, Bengaluru. Proceeding published by International Journal of Computer Applications. |
| 4 | Ms. Swathi & Ms. Drakshaveni presented a paper entitled "Intra State Cheque Transfer Using Raspberry Pi" in the 2 nd National Conference on Recent Trends in Information Technology, 21 st – 22 nd June, 2016 organized by Dept. Of ISE, CSE & MCA, BMSIT&M, Bengaluru. Proceeding published by International Journal of Computer Applications. |
| 5 | Ms. Priyanka C. & Ms. Drakshaveni presented a paper entitled "E Tracking Software on Cost Study and Casting Models for Manufacturing Units" in the 2 nd National Conference on Recent Trends in Information Technology, 21 st – 22 nd June, 2016 organized by Dept. Of ISE, CSE & MCA, BMSIT&M, Bengaluru. Proceeding published by International Journal of Computer Applications. |
| 6 | Dr. Arunkumar B.R., Muthuramalingam B. authored a paper entitled "Reliability and Energy Issues in Wireless Sensor Networks with Cognitive Approach- A Literature Review" that was presented in the National Conference on Control, Communications and Power Systems (NC3PS)-2016 on 29 th July, 2016 organized by BMSIT&M, Bengaluru. |

**Faculty Participation in Workshops:**

1	Ms. Aparna K and Venkatesh A attended 3-day workshop on “Research Methodologies with Latex” organized by VTU e-Learning Centre, Mysuru from 29 th to 31 st July 2015 at Acharya Institute of Technology, Bengaluru.
2	Dr.Arunkumar B.R. and Ms. Aparna K has been deputed and participated actively in Two days workshop organized by VTU e-Learning centre, Mysore at VTU regional office, Nagarabhavi, Bengaluru on 16 th & 17 th October 2015.
3	Prof. Sudarsanam P. has attended a training program on “Think Parallel: Parallel Programming for Engineers & Scientists” organized by C-DAC, Bengaluru from 30 th November to 4 th December 2015.
4	Dr.Arunkumar B.R., G.V.Dwarakanath, Nagabhushan S.V., and Reshma C.R. attended a 5-day workshop on “Game Theory and Mechanism” organized by NMI in IISC, Bangalore from 11/01/2016 to 15/01/2016. The participants learnt from workshop how to implement cooperative game theory in traffic modeling to track the speed of the vehicles in different measurements and density of vehicles in VANETs
5	Ms. Aparna K and Ms. M.Sridevi attended 6-day Faculty Development Program on “Hadoop Ecosystem for Big Data” held from 18 th to 23 rd January 2016, organized by Department of Information Science & Engineering and Computer Science & Engineering, BMSIT&M, Bengaluru. The participants had a great introduction to Hadoop Ecosystem for Big Data from the industry experts and acquired rich hands on experience with various components of the eco system.
6	Ms.M. Sridevi participated in the NPTEL workshop organized by National Programme of Technology Enhanced Learning (IIT Madras) in association with Jyothy Institute of Technology, Bengaluru on 29 th January, 2016.
7	Ms. M.Sridevi, Ms.Aparna and Ms.Drakshaveni participated in the 6-day Faculty Development Program on “Advances in Web Intelligence Techniques K., and Ms.” at R.V College of Engineering, Bengaluru sponsored by TEQIP- II between June 27 th to July 2 nd , 2016.
8	Mr. Shivakumara participated in two days workshop on “Matlab Fundamentals and Programming Techniques (MFPT)”, held during 21 st & 22 nd July 2016, organized by the Department of Electronics & Communication Engg., BMSIT&M, Bangalore .
9	Ms. M.Sridevi attended a one-day Faculty Development Program on “Big Data and Analytics” at Cognizant Technology Solutions, Bengaluru on 22 nd June, 2016.



Faculty Internship Details:

Sl. No	Name of the faculty	Company	Date (From - To)	Outcome of the Internship
1.	Dr.Arunkumar B.R Professor and Head	Gramener Technology Solutions Private Limited	04-01-2016 to 09-01-2016 & 16-01-2016 to 22-01-2016 10 days	1.Explored on Data visualization and Network topology Identification 2. Will be Extended as 6 months student project with joint supervision from Gramener and Dr.ABR. 3. Useful in identifying the gap between academia and Industry expectation. 4. Useful to find out modern tools for the students and faculty to get trained. 5. Initiated Gramener Project lab establishment @MCA and Student internship
2.	Ms.Sridevi M Asst. Professor	Gramener Technology Solutions Private Limited	04-01-2016 to 16-01-2016 10 days	1. Worked on Data visualization and Network Analysis. 2. Worked with data visualization tool Gephi 0.9.0. 3. Useful to certain extent to do project/research in the department and to establish BIG-Data Lab.
3.	Ms.Nirupama B.K Asst. Professor	Sixer jobs	05-01-2016 to 15-01-2016	1.Learnt Software testing (ST) - Selenium Tool 2.As a project coordinator for sixth semester can play the role of improving the student project quality apart from giving input to the students
4.	Mr.Venkaesha A Asst. Professor	Microclix Technologies	04-01-2016 to 19-01-2016 10 days	1.Learnt Software testing (ST), writing test scenarios and test cases for integration system testing 2.Will offer training to the students in ST 3.Coordinate in ST lab establishment @MCA dept.
5.	Ms.Drakshaveni Asst. Professor	MSPL technologies	11-01-2016 to 21-06-2016	1.Learnt Software testing (ST) automation tool 2.Will offer training to the students in ST-practical as Value added Course which helps in Capacity building 3.Useful in leading the Coordination in ST lab establishment @MCA dept.
6.	Ms. Aparna K Associate Professor	Robust Designs India Pvt. Ltd	23-05-2016 to 03-06-2016	1.Provided opportunity to apply my theoretical knowledge to real-world situations



7.	Mr. Nagabhushan S.V. Asst. Professor	Zyewie technologies	27-06-2016 to 08-07-2016	1. Worked on CRM(Process Implementation)
8	Mr. Shivakumara T. Asst. Professor	Mahindra Comviva	16-06-2016 to 30-06-2016	1.The detailed enterprise wide implementation of Short Message Service (SMS), its complexity in configuration & deployment were understood. 2.Understood committed team work & coordination in work culture of corporate world which leads to release of successful product. 3.The basic understanding of the technologies such as PERL, Node JS, Unix-OS, Redis DB, Oracle DB, MYSQL, JAVA, Django, Angular JS & Core Networking.
9	Mr. Dwarakanath GV Asst. Professor	XPIO Technologies Pvt Ltd. Bengaluru.	04-07-2016 to 14-07-2016	1.Able to develop real time applications using android studio. 2.Perform functional testing, integration and system testing for any software project. 3.Tool development using eclipse mobile technology.
10	Mr. Sudarsanam P Asst. Professor	XPIO Technologies Pvt Ltd. Bengaluru.	01-07-2016 to 12-07-2016	1.Able to develop real time applications using .Net. 2.Perform functional testing, integration and system testing for any software project. 3.Tool development using BOX technology.

**Proposals by faculty to funding agencies:**

1	Dr.Arunkumar B.R. has submitted 2 project proposals to VGST under FDP scheme titled “Big Data Analytics and Visualization” and RFTT scheme titled “Optimization of Cross Layer Design and Hacker Detection in Software” to VGST with the budget of 1.76 lakhs and 3 lakhs respectively.
2	Ms. M.Sridevi has submitted a project proposal to VGST under SMYSR scheme titled “Patient Network Analysis to Detect Chronic Disease Trends” with the budget of 2.8 lakhs.
3	Ms. Aparna K has submitted a project proposal to TRIP scheme under VGST.
4	Ms. Aparna K has submitted project proposal to the funding agency DSIR, New Delhi. The title of the proposal is “Smart Lighting System using Raspberry PI for Eco-Friendly Organizations” with the budget of Rs. 2,05,000/-

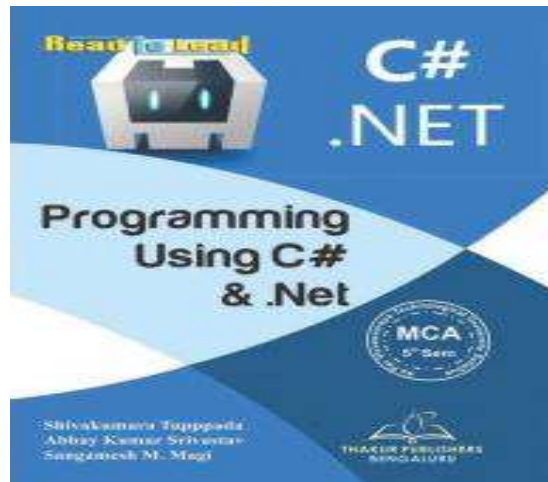
Details of the visitors to the department in 2015-2016:

Sl	Name of the Resource Person with Address	Visited For Workshop/ Seminar/ Invited Talk	Date of Visit
1	Mr. Chengappa B S, Asst. Professor, Dept. of MCA, PESIT, Bengaluru	Workshop on “Problem Solving Skills”	25/8/2015
2	Dr. Mydhili K Nair, Professor, Dept. of ISE, MSRIT, Bengaluru	Technical talk on “Machine Learning Applied to Music Database”	12/9/2015
3	Mr. Varun Padi, CEO, Excubator Consulting Pvt. Ltd., Bengaluru	Expert talk on “Business Proposal & Financial Aspects in Entrepreneurship”	19/9/2015
4	Mr. C M Machayya, Co-Founder, Interline Publishing, Bengaluru	Expert Talk on “Digital Publishing & Delivery of Study Material”	31/10/2015
5	Mr. Dattatreya S Vellal, Senior Technical Lead, Exeter Software India Pvt. Ltd, Bengaluru	Technical talk on “Web Technologies & Us”	19/12/2015
6	Mr. Prakash Raghavendra, Head, HPO, Bengaluru	Talk on “Parallel Computing using Neural Networks”	18/3/2016
7	Mr. Ganesh Hegde, Manager – Application Development & Support, COLT Technology Solutions India Ltd., Bengaluru	Partial delivery of the course for IV Semester MCA students in Advanced Java Programming	15 th , 16 th , 22 nd , 23 rd , April 2016
8	Mr. Sheshadri, Senior Test Consultant, Microsoft, Bengaluru	Workshop on “Software Testing and Tools”	22/4/2016
9	Mr. Praveen Alur from Cisco	Partial Delivery of Course (PDC) classes for II Semester MCA for the DBMS Course	27 th -29 th , April 2016
10	Dr. Ramakanth Kumar P, Professor & Dean, Academics, RVCE, Bangalore	One day workshop on “Mobile Applications Development Using Android”	30/4/2016



Books Authored by Faculty Members:

Prof. Shiva Kumara T. authored a book published with the title “**Programming Using C# & .NET.**” It covers all the concepts related to VTU 5th Sem MCA new Syllabus 2013, Thakur publishers, ISBN: 978-93-5163-609-0, 2015-16.
The copy of the same submitted to Dept. of MCA Library through the HOD of MCA.



Workshops organized by the Department

- | | |
|---|--|
| 1 | Workshop on “Problem Solving Skills” by Mr. Chengappa B S, Asst. Professor, Dept. of MCA, PESIT, Bengaluru was organized on 25 th August 2015 |
|---|--|



Mr. Chengappa interacting with the students

- | | |
|---|---|
| 2 | A workshop on “Software Testing and Tools” was organized by Dept. of MCA on 22 nd April, 2016 for which Mr. Sheshadri, Senior Test Consultant, Microsoft, Bengaluru was the resource person. He covered various concepts like Quality Assurance, Testing Activities, Basic Software Testing, and Types of Testing with practical sessions. |
|---|---|





Introduction of the speaker Mr. Sheshadri to the audience by Ms. Drakshaveni	Welcoming the speaker by Ms.Aparna K
	
First session :Introduction to Software Testing	Participants attending the workshop
<p>3. Hands on session on Cloud Application deployment was held on 9th November 2015 in Digital Library. Mr. Suraj Kumar Jana, Founder, OpenCube Labs, BMSIT was the resource person. The session was attended by 20 students of 5th semester MCA. The topics covered were Cloud Basics, GitHub and APP development.</p>	
	
Students attending the Hands on Session	Resource Person interacting with the students
<p>4. One day workshop on “Mobile Applications Development Using Android” was conducted on 30th April, 2016. Dr. Ramakanth Kumar P, Professor & Dean, Academics, RVCE, Bangalore was the resource person. In the morning session the speaker covered the topics on Android, such as Android era, Android architecture & the basic components of android. During post lunch session, he demonstrated how to develop & deploy the android application on the real device such as mobile phone with the applications such as sending SMS & Sending E-mail.</p>	



Dr. Ramakanth Kumar P delivering the session

Deminars organized by the department

Mr. Pundrik Vinayak, Senior Application Developer, IBM (GBS), Alumnus of the Batch 2012, has delivered talk with demonstration of ETL process on “Big Data & Terra Data”. Objective of the deminar was to make them understand the concept of big data / terra data and use them in their projects. The guest, Mr. Raj Kishore, System Engineer, IBM (GBS), shared his thoughts & views on ETL Testing process.



Mr. Pundrik delivering the session



Expert Talks Organized

1 | Technical talk on “Machine Learning Applied to Music Database” by Dr. Mydhili K Nair, Professor, Dept. of ISE, MSRIT, Bengaluru was held on 12/09/2015



Dr. Arunkumar B.R, HOD welcoming the Speaker

2 | Expert talk on “Business Proposal & Financial Aspects in Entrepreneurship” was delivered by Mr. Varun Padi, CEO, Excubator Consulting Pvt. Ltd., Bengaluru on 19/09/2015.

3 | Expert Talk on “Digital Publishing & Delivery of Study Material” by Mr. C M Machayya, Co-Founder, Interline Publishing, Bengaluru was organized by MCA dept. on 31st October 2015.



Mr. C M Machayya addressing the gathering

4 | Technical talk on “**Web Technologies & Us**” by Mr. Dattatreya S Vellal, Senior Technical Lead, Exeter Software India Pvt. Ltd, Bengaluru was held on 19th December, 2015.



5 Mr. Prakash Raghavendra, Head, HPO, Bengaluru delivered a talk on “Parallel Computing using Neural Networks” on 18th March, 2016. The students of 4th semester MCA were given an overview of various processor architectures in parallel computing.

Partial Delivery of courses:

1. Ms. M.Sridevi, Asst. Professor, Dept. of MCA coordinated the Partial Delivery of the Course (PDC) for Advanced Java Programming – 13MCA42 organized on 15th, 16th, 22nd, 23rd, and 30th April, 2016 during which the lectures were delivered by adjunct faculty member Mr. Ganesh Hegde, Manager – Application Development & Support, COLT Technology Solutions India Ltd., Bengaluru. Mr. Ganesh discussed about the Enterprise Java Beans, their usage in industry context, and shared his work experiences with real time examples.



Resource person being welcomed by HOD,
MCA



Students attending the Hands on Sessions

2. Ms. Aparna K co-ordinated the Partial Delivery of Course (PDC) classes for II Sem MCA for the DBMS Course. Mr. Praveen Alur from Cisco was the resource person. The PDC was conducted from 27th April to 29th April 2016.



Resource person is being welcomed by
HOD, MCA

D-Space:

BMSIT&M Institutional Repository has been established using DSpace 5.5 version. It is available throughout the campus. We can upload / view / download articles, notes etc. We can access the OPAC, institutional repositories and digital library 24/7 from anywhere in the campus with any device that supports Wi-Fi connectivity through this IP address <http://100.127.2.254>. To start uploading or accessing Institutional Repository, we have to type the IP address: <http://100.127.2.254:8080/jspui>, and click Down Arrow under the Sign on to: command and click 'My DSpace'. Before uploading, we have to compress the file e.g, <http://smallpdf.com>.

14 Articles Published and 16 learning Materials have been uploaded by all the staff of MCA department during Odd semester 2016-17.



Department co-curricular and extracurricular activities:

- Industrial visit for the first semester MCA students to RTTS Technologies & K-Two Technologies, Bengaluru was organized on 4th December 2015.
- C Coding Test was conducted for the students of I semester MCA on 12/12/2015.
- Conducted Poster Presentation Event on 19/12/2015 for the students of I semester MCA.
- The innovative ideas of Mr. Srinidhi Dixit & Team (IV semester) and Mr. Mahesh Kumar (VI semester) were awarded with I and II places respectively, in the Best Innovative Ideas contest during the event of Tech Transform 2016.
- An Innovative Teaching-Learning initiative – Kiosk of Technology Kinetics (KiTKi) Window to Contemporary Technology Trends, was initiated in the department to share with the students about the technology trends, start up stories etc. and make them competitive and confident by staying updated with current technology affairs.



Department cultural participation:

The following students participated in cultural event on 15th of August 2015 with the Event name - MIME.show on Jallianwala Bagh Massacre and Dandi March:



Sowmya N, Shree Raksha L, Anusha, Akhil Misri, Abhishek R, Lavanya V, Pradeep, Hajappa from III semester MCA.

Academic Social Responsibility

Visited the Home of Hope to distribute cloths and other necessities to the residents of the home. The event was initiated in July and executed on August 13th, 2016.



Parent Teachers Meet

1. The Department of MCA organized Parents-Teachers Meet on 7th Nov 2015. The gathering was welcomed by Prof. & HoD, Dr. Arunkumar B R. All the proctors and class coordinators interacted with the parents about the performance of their wards. The parents also gave their valuable feedback. The meeting ended with a vote of thanks delivered by Ms. Aparna K, Assoc. Professor, Dept. of MCA.



2. The Department of MCA organized Parents-Teachers Meet on 23rd April 2016. The gathering was welcomed by Prof. & HOD, Dr. Arunkumar B R. All the proctors and class coordinators interacted with the parents about the performance of their wards. The parents also gave their valuable feedback. The meet ended with a vote of thanks delivered by Prof. Aparna K, Assoc. Prof, Dept. of MCA.

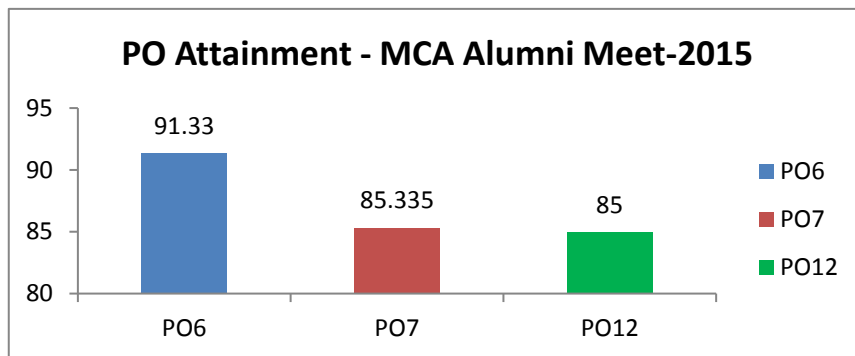
Department Alumni Meet

- Alumni meet was organized on 21-11-2015, Dr. Arunkumar B R, HOD, MCA, in his welcome speech explained about the objectives of conducting this alumni meet and OBE teaching - learning process, cocurricular and extra curricular activities at the department.
- Accreditaion process in general, particularly Programme Outcomes of the MCA programme are briefed by Ms. Aparna K, Accreditation and Program Coordinator.
- Mr. Shivakumara T explained alumni activities at the department & future plan.
- The alumnus during their interaction shared their experience. Some highlights are: IT professional ethics, scope & need for learning new tools and techologies and contributions



of IT professional as an individual and in a team for the betterment of the society. Alumnus inputs were helpful in making the career path in IT. Students, faculty members & alumnus interaction leads to fruitful outcome. They appreciated the teaching-learning process, co-curricular & extra-curricular activities. During the interaction, Dr. Arunkumar B R, HOD, MCA discussed with alumnus regarding the curriculum component to be offered to the current students to increase job opportunities. Finally, it was decided to offer value added course (VAC) with a syllabus of shell programming (resource person identified is Mr. Leo Antony A, CERNER) Advanced C/Data Structures (resource person identified is Mr. Chinmaya Bairy, PHILIPS Software Pvt. Ltd.) during the even semester for 2nd and 4th MCA students.

Following graph shows the survey on the feedback obtained by 30 students



PO6: Understand professional ethics, cyber regulations and responsibilities.

PO7: Engage and learn independently for continual development as an IT professional.

PO12: Identify opportunities for value addition of individuals and society.

Semester Toppers:

ODD Sem. 2014-15

Semester	USN	Name	Percentage
I	1BY15MCA34	Raj Niranjan	82.76
	1BY15MCA46	Sweety Ladia	82.10
III	1BY14MCA33	Shrinidhi Dixit	82.19
	1BY15MCA80	Sushama S C	79.05
V	1BY13MCA16	Kavya Laxminarayan Hegde	85.43
	1BY13MCA04	Ajith K P	82.48

EVEN Sem. 2014-15

Semester	USN	Name	Percentage
II	1BY15MCA46	Sweety Ladia	86.76
	1BY15MCA34	Raj Niranjan	85.33
IV	1BY14MCA33	Shrinidhi Dixit	82.76
	1BY15MCA77	Ramanand R Hegde	80
VI	1BY13MCA04	Ajith K P	99.20
	1BY13MCA16	Kavya Laxminarayan Hegde	98.80

**Placement Details:**

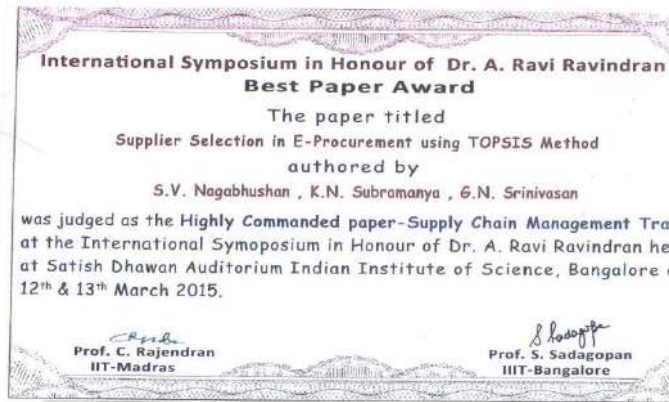
Sl. No.	USN	Name	Company
1	1BY12MCA41	Shivprasad	Neudesic
2	1BY13MCA01	Abhishek Singh Rana	Socite Generale Global Services
3	1BY13MCA03	Ajith H B	Cerner Healthcare Solutions
4	1BY13MCA04	Ajith K P	Capgemini / ISTAR Skill Development
5	1BY13MCA09	Chaitra R	Socite Generale Global Soluation Centre Pvt. Ltd.
6	1BY13MCA11	Chinmay	Obopay Mobile Technology India Pvt. Ltd.
7	1BY13MCA33	Mahesh Kumar G	Aujas Network Pvt. Ltd.
8	1BY13MCA20	Mohith J	Cerner Healthcare Solutions
9	1BY13MCA21	Naveen M	Cerner Healthcare Solutions
10	1BY13MCA27	Priyanka K	Cerner Healthcare Solutions
11	1BY13MCA31	Sharath S	Software AG
12	1BY13MCA32	Sudha Shree R	Numerify/ Dell
13	1BY13MCA34	Sushant Kumar	Mahindra Comviva
14	1BY13MCA41	Veeresh Karakur	Numerify/ Dell
15	1BY13MCA42	Vighneshwar Shankar Naik	Socite Generale Global Soluation Centre Pvt. Ltd.
16	1BY13MCA44	Vinay Kumar S M	Capgemini
17	1BY13MCA43	Vignesh K N	Legal Desk
18	1BY13MCA28	Revansidda Patil	Nineleaps Technology Pvt. Ltd.
19	1BY13MCA17	V Kirthiga	Sorbix
20	1BY13MCA29	Revati	Sorbix
21	1BY13MCA24	Praveena C C	Sutherland Global Services
22	1BY13MCA22	Naveen Reddy M	Legal Desk
23	1BY13MCA08	Basanna	KTWO Technology Solutions
24	1BY13MCA39	Varsha V Bhardwaj	E-Cinnect Solutions
25	1BY13MCA35	Swathi	Ebix.Biz Technologies
26	1BY13MCA26	Proyanka C	Ebix.Biz Technologies
27	1BY13MCA10	Chethan K V	KTWO Technology Solutions
28	1BY13MCA37	Thejas N	Rejag Technologies Pvt. Ltd.

Overall placement is 88%





Mr. Ramanand R Hegde, student of V semester receiving the honour at the convocation ceremony held in Karnatak University Dharwad for securing First Rank in B.Sc. (CS) with 87.71%





HEARTIEST CONGRATULATIONS
ON SECURING UNIVERSITY (VTU) RANKS
2013-16 BATCH



Ms. Kavya
Laxminarayan Hegde
(1BY13MCA16)
ON SECURING UNIVERSITY
LEVEL (VTU)
1th RANK
(86.16%, 3 Gold
Medals)
(BATCH 2013-2016)



Mr. Ajith K P
(1BY13MCA04)
ON SECURING UNIVERSITY
LEVEL (VTU)
4th RANK
(84.44%)
(BATCH 2013-2016)