



**BMS Institute of Technology & Management**

**Yelahanka – Bengaluru – 560064**

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Volume 2, Issue 1

**Staff Editor: Mr. Muneshwara M S**

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**Tejaswini A Kantavanur (2<sup>nd</sup> Sem M. Tech)**

**Reviewed by Dr Anil G N, HOD Dept. of CSE**

**DEPARTMENT OF COMPUTER SCIENCE &  
ENGINEERING**

**August 2019 to January 2020**

## **Vision**

To develop technical professionals acquainted with recent trends and technologies of computer science to serve as valuable resource for the nation/society.

## **Mission**

Facilitating and exposing the students to various learning opportunities through dedicated academic teaching, guidance and monitoring.

## **Program Educational Objectives**

1. Lead a successful career by designing, analysing and solving various problems in the field of Computer Science & Engineering.
2. Pursue higher studies for enduring edification.
3. Exhibit professional and team building attitude along with effective communication.
4. Identify and provide solutions for sustainable environmental development.

## **PROGRAM OUTCOMES**

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **PROGRAM SPECIFIC OUTCOMES**

1. Analyse the problem and identify computing requirements appropriate to its solution.
2. Apply design and development principles in the construction of software systems of varying complexity.

## **M. Tech. in Computer Science and Engineering**

### **Program Educational Objectives (PEOs)**

1. Apply analytical thinking to solve problems through research in the areas of Computer Science and Engineering.
2. Adapt to changing technological trends through life-long learning by exhibiting professional ethics, integrity and career growth.
3. Develop skills to facilitate in providing sustainable solutions by addressing the ever-growing challenges of the society.

### **Program Outcomes (POs)**

1. Independently carry out research and development work to solve practical problems related to Computer Science and Engineering domain.
2. Write and present a substantial technical report/document.
3. Demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.
4. Analyse the acquired domain knowledge for providing feasible solution(s)
5. Relate the learning outcomes to build requisite competency in professional environment.
6. Appraise the need for engaging in lifelong learning.

# HOD's Desk



**Dr. Anil G. N., Prof. & Head,  
BE, M.Tech, D.Sc**

I am extremely happy to share with you about the progress, Department of Computer Science & Engineering has made during 2019 - 2020. The Department has been one of the most vibrant among all, in terms of students, faculty, facility, placements, internships and incubation centre. The department is recognized as a Research Centre by VTU and 15 scholars who have enrolled for PhD. The department is supported by 28 qualified and experienced faculty members with Eight Doctoral degree holders in different domains. Our department has a team of highly skilled, motivated, proficient faculty and technical staff members who are striving hard continuously to enhance the quality of education.

The department has highly competent students who are undergoing internship in reputed companies getting stipends up to 80 thousand rupees per month. The Department has adopted the practice of Outcome Based Education (OBE). The Under Graduate Programme is accredited by National Board of Accreditation (NBA), New Delhi, and Permanently Affiliated to Visvesvaraya Technological University (VTU), Belagavi.

The department has setup student chapters like IEEE student club and CSI in the campus to bridge the gap between industry and academia with a vision, "IT for Masses", thus enabling IT professionals and computer users to work towards making the profession an area of choice. Therefore, the department is poised to take on challenges to meet the industrial and societal needs in years to come.

# Teaching Staff's

## Associate Professors



**Dr. Thippeswamy G**  
BE ME Ph.D, Professor &  
Dean (Academics)



**Dr. HemaMalini B H**  
BE M.Tech, Ph.D



**Dr. Mahesh G**  
B.E M.Tech Ph.D



**Dr. Anjan Krishnamurthy**  
BE M.Tech Ph.D  
(PG Coordinator)



**Mrs. Bharathi.R**  
BE M.Tech, (Ph.D)



**Dr. Sunanda Dixit**  
BE MTech Ph.D

## Assistant Professors



**Mrs. Vishakha Yadav**  
BE MBA, (Ph.D)



**Mr. Muneshwara M S**  
BE M.Tech, (Ph.D)



**Mr. Anand.R**  
BE M.Tech, (Ph.D)

# Teaching Staff's

## Assistant Professors



**Mrs. G.Y.Durga Devi**  
B.Tech M.Tech (Ph.D)



**Mrs. Shruthi.J**  
BE M Tech, (Ph.D)



**Mr. Jagadish.P**  
BE M.Tech, (Ph.D)



**Mrs. Durga Bhavani A**  
B.Tech M.Tech (Ph.D)



**Mr. Rajesh N V**  
BE M.Tech



**Mrs. Chethana C**  
BE M.Tech



**Ms. Ambika G.N**  
BE M.Tech, (Ph.D)



**Mrs. Vidya Rajesh Pai**  
BE M.Tech, (Ph.D)



**Mrs. Mari kirthima**  
BE ME, (Ph.D)

# Teaching Staff's

## Assistant Professors



**Mrs. Radhika K R**  
BE M.Tech, (Ph.D)



**Mr. Guruprasad S**  
BE M.Tech, (Ph.D)



**Mrs. Srivani P**  
BE M.Tech, (Ph.D)



**Mr. Ravi Kumar B N**  
BE M.Tech, (Ph.D)



**Dr. Arunakumari B. N.**  
BE M.Tech, Ph.D



**Dr. Satish Kumar .T**  
BE ME Ph.D



**Mr. Shankar R**  
BE ME, (Ph.D)

## Non – Teaching Staff's



(First row -> Left to Right) Mrs. Bhagya. M(Instructor), Mr. Venkatesh Bangar (Asst. Instructor), (Second row -> Left to Right) Adhinarayana Reddy .M(Instructor), Mr. Hari Prasad Pai (Instructor), Mr. Harinath H.N (Asst. Instructor), Mrs. Ragini T. N(Instructor)

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## MoUs / Awards / Recognitions

**This should cover any MoUs entered into with external agencies; any awards received by the department / faculty member / student and recognitions like giving expert talk in other institutions / chaired a seminar / BoE member, etc.**

**Sponsored R&D projects in - hand** by Dr. Thippeswamy G (CO Investigator) entitled as Exploration of Continuous Morphological Models for Analysis and Recognition of Dynamic Depth Images / Videos of Rs. 8 Lakhs

### Consultancy work

1. Mr. Shankar R shared his expertise as Trainer for Advanced Computer Graphics Course at Manav Rachna International Institute of Research and Studies, Faridabad, Haryana, India in collaboration with IBM from 13<sup>th</sup> to 16<sup>th</sup> August 2019.
2. Mr. Shankar R, Assistant Professor, Dept of CSE, has been given the Training on Computers for Police Personnel, 23<sup>rd</sup> to 26<sup>th</sup> October 2019, Armed Police Training School (APTS), Yelahanka, Bengaluru.

### Symposium Attended

Dr. Sunanda Dixit, Participated in the symposium on "Affordable Health Care" 14<sup>th</sup> to 16<sup>th</sup> November 2019, at Dayananda Sagar College of Engineering, Bengaluru.

### Session Chair

1. Dr. Sunanda Dixit, Associate Professor, Department of CSE, Reviewed technical papers from International conference on Computational Systems and Information Technology for Sustainable Solutions(CSITSS-2019), R V College of Engineering, Bengaluru, India, 20- 21st December 2019
2. Dr. Satish Kumar. T, Asst. Professor, CSE was session chair for ICDECS-2019 organized by RNS Institute of Technology, Bengaluru on 19<sup>th</sup> to 20<sup>th</sup> December 2019.
3. Dr. Mahesh G, chaired a session in 2 days AICTE sponsored national conference on "Emerging Multidisciplinary Trends in Biotechnology and Engineering: A Future Perspective" Organized by Acharya Institute of Technology, on 23<sup>rd</sup> to 24<sup>th</sup> August 2019.

## BOE

Dr. Sunanda Dixit, Associate Professor, Department of CSE, was a BOE member for Dr. AIT and Audited for end examination Question papers, Scheme & Solutions, sample answer scripts on 2<sup>nd</sup> December 2019

## Faculty as Resource Person

Shankar R, Assistant Professor, Department of CSE has extended their support as Resource person for HTML Programming on 17<sup>th</sup> December 2019 at Karnataka Govt. Girls College, Bengaluru.



Mrs Chethana C, Assistant professor, Department of CSE has extended their support as Resource person for Lecturing on Introduction of IOT for Level1, Level2, Level3 at Karnataka Public School, 13<sup>th</sup> Cross Malleshwaram, Bengaluru -03 Under the Scheme National Skill Qualification Framework. The lecturing was given on IOT (Internet Of Things) and AI (Artificial Intelligence) which was very informative and a new concept of computer science been introduced to the students. The components practically used for IOT was shown to the students and description was given for each. from 7<sup>th</sup> November 2019.



- Dr. Anjan K, Associate Professor delivered a expert talk on Innovative teaching methods in Dept. of Chemistry, Bangalore University in 25<sup>th</sup> September 2019.
- Dr. Mahesh G, delivered a talk on “Computer Applications in Biotechnology” in 2 days AICTE sponsored national conference on “Emerging Multidisciplinary Trends in Biotechnology and Engineering: A Future Perspective” Organized by Acharya Institute of Technology, on 23<sup>rd</sup> to 24<sup>th</sup> August, 2019.

### Faculty Awards

Dr. Sunanda Dixit, received the “Dr. Adarsh Vidya Saraswati Rashtriya Puraskar” National Award of Excellence from Global Management Council August 2019.

### Out Reach Activity

Mrs Chethana C Assistant Professor, Dept. of CSE participated Maintenance of trees at Aladahalli Betta on 29<sup>th</sup> December 2019 as a part of Kumadavathi River Rejuvenation project started by Art of living. Participants of Eco club members.



Mrs Chethana C, Assistant professor, Department: CSE has extended their support for Eco Club Activity Manuring Saplings at Lakkapannahalli on 10<sup>th</sup> November 2019 as a part of Kumadavathi River Rejuvenation project started by Art of living.



Mrs Chethana C, Assistant professor, Department CSE has extended their support for Eco Club activity plastic clean and awareness program as a member of OIKOS on 24<sup>th</sup> – 25<sup>th</sup> November 2019 visited Jamga primary school along with members of OIKOS and gave instructions on the basic hygiene at Dandeli.



Mrs. Chethana C on 18<sup>th</sup> August 2019- Participated as a member of eco club along with the first year students from Department of Civil Engineering, during the visit, the students were instrumental in clearing the place of plastics and beer bottles left behind by trekkers. I was instrumental in motivating students in carrying out dispersal of seed balls of water apple and guava to enhance fruit bearing tree cover for birds and other mammals.



Mrs. Chethana C on 18<sup>th</sup> August 2019 Participated in seed dispersal program at forest venue near chikkabanavara (Arkavathi forest).



Mrs. Chethana C -Coordinated for the blood donation camp from as a member of NSS Unit on 29<sup>th</sup> August 2019.



Mrs. Chethana C-Coordinated for Standing event for cauvery calling to cauvery roaring on 20<sup>th</sup> August 2019 from 9.30 am to 10.00 am.



## Reviewer for Journal / Conference

1. Dr. Satish Kumar T, Asst. Professor, CSE was a reviewer for “The Journal of Supercomputing”, H-Index: 49 (SCI), 2019
2. Dr. Satish Kumar T, Asst. Professor, CSE was a reviewer for “International Journal of Sensors, Wireless Communications and Control”, H-Index: 3 (Scopus),2019
3. Dr. Sunanda Dixit, Associate Professor, Department of CSE, Reviewed technical paper on “Study and Research of Health Insurance plans in India using Machine Learning Approach” from International conference on Computational Systems and Information Technology for Sustainable Solutions(CSITSS-2019), R V College of Engineering, Bengaluru, India, 20<sup>th</sup> to 21<sup>st</sup> December 2019
4. Dr. Sunanda Dixit, Reviewed Journal paper on “An Integrated Framework for Pronominal Anaphora Resolution in Malayalam”, Advances in Science, Technology and Engineering Systems Journal, ISSN: 2415-6698 in August-2019
5. Dr. Sunanda Dixit, Associate Professor, Department of CSE, Editor of the Journal of Image Processing and Artificial Intelligence, reviewed research papers publishing in MAT Journal August-2019

## Memorable Moments / Best practices

Any activity conducted by the department which had good impact and was memorable in nature

### Parent Teacher Meeting

Parent Teacher Meeting Odd Semester 2019-20 for 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> Semester was scheduled on 12<sup>th</sup> October 2019 at 9:30 AM in CSE Seminar Hall, 4<sup>th</sup> Floor, BSN Block. Around 20 parents were present for the meeting along with the teachers.

#### Points Discussed:

- Dr. Anil G N, Professor and HOD welcomed all the parents to the meeting.
- He gave a brief introduction about the department along with NBA and NAAC review points.
- He also presented the best practices followed in the department to improve the academics.
- Information related to Open Courses and PBL (Project Based Learning) conducted in the department and college was shared with the parents.
- Prof. Shruthi J, Placement Coordinator, discussed about the importance of placements and shared the details about the students placed in last 4 years.
- HOD interacted with the parents about the proctoring system and asked the parents to meet the respective proctors.
- The meeting concluded with a high tea

#### Feedback from Parents

- Communication sent is very good
- Best Engineering College in Bangalore
- Students need to be motivated
- Very good faculty
- PTM needs more feedback specific to each individual
- Reduce 6 days per week to 5 days.

Overall, parents are happy with teaching learning process adapted in the department and expressed that the college has a student friendly environment.



Merit scholarship has been given to 3<sup>rd</sup> sem CSE students Mr. Vishnu shasthry H K & LIKITH S from Mr. Vinay Bharadwaj S Alumni 2014 Batch. on 21<sup>st</sup> Sept 2019



# Industry – Institute Interaction

This should cover industrial visits, industry experts visiting the institute, faculty internships, student internships etc.

## Industrial Visit

An industrial visit was arranged by the Department of CSE for Third semester at place HMT Museum on 4<sup>th</sup> November 2019 by Mrs Chethana C and Mr Anand R



An industrial visit was arranged by the Department of CSE for the First Semester MUDDENAHALLI – VILLAGE OF BHARAT RATNA VISVESVARAYA, on 8<sup>th</sup> August 2019, by Mrs Hemamalini B.H, Mr Anand R & Mr. Muneshwara M S



## Faculty Internship

1. Guruprasad S, Assistant Professor, Department of CSE, has undergone industry internship at RAKUTEN Bengaluru, from 8<sup>th</sup> to 18<sup>th</sup> January 2020.
2. Dr. Mahesh G, Associate Professor, Department of CSE, has undergone industry internship at Pytriot solutions Bengaluru, from 8<sup>th</sup> to 18<sup>th</sup> January 2020.
3. Dr. Satishkumar T, Associate Professor, Department of CSE, has undergone industry internship at Pytriot Solutions Bengaluru, from 8<sup>th</sup> to 18<sup>th</sup> January 2020.
4. Dr. Sunanda Dixit, Associate Professor, Department of CSE, has undergone industry internship at Gamut analytics Pvt Limited, Bengaluru, from 8<sup>th</sup> to 18<sup>th</sup> January 2020.
5. Shruthi.J, Assistant Professor, CSE has undergone industry internship at Pushkala technologies Pvt Ltd from 23<sup>rd</sup> December to 04<sup>th</sup> January 2020.
6. Durgadevi G Y, Assistant Professor, CSE has undergone industry internship at Rebuter Electronics Pvt Ltd from 23<sup>rd</sup> December to 04<sup>th</sup> January 2020.
7. Radhika K R, Assistant Professor, CSE has undergone industry internship at Logistics Pvt Ltd from 23<sup>rd</sup> December to 04<sup>th</sup> January 2020.

## M. Tech Student's Internship

Sl. No	USN	Student Name	Company Name
1.	1BY18SCS01	Bhagyashree A V	Robert Bosch
2.	1BY18SCS02	Chaitrashree H S	Infidata solutions
3.	1BY18SCS03	Drivyashree S	IISC
4.	1BY18SCS04	Fasiha Kausar	Infidata solutions
5.	1BY18SCS05	Kaveri T Hombal	Nokia
6.	1BY18SCS06	Naveen Kumar K V	Infidata solutions
7.	1BY18SCS07	P Prajwala	SOA IT Solutions Ltd.
8.	1BY18SCS08	Purushotham Naidu V	Nokia
9.	1BY18SCS09	Rajeshwari N	Infidata solutions
10.	1BY18SCS10	Ramya PL	Devexis India
11.	1BY18SCS11	Ranjini N	Infidata solutions
12.	1BY18SCS12	Sneha S	Sprint Communications
13.	1BY18SCS13	Srivatsa Raju S	Nokia
14.	1BY18SCS14	Sudhanshu Gupta	Infidata solutions

# Workshops / Faculty Development Programmes/ Fests

This should cover workshops conducted by the department wherein external agencies / participants were part of the workshop / FDPs conducted and fests like inter collegiate technical fest.

## Induction programme for First Year Students 2019 Batch

Welcome address, Department Rules & Regulations & Briefing about the induction programme by Dr. Anil G N, HOD briefed about the department and Induction Program. He also briefed about best practices of CSE department like MOOCs, PBL, OBE. He encouraged the students to involve in various activities of the department.



Principal addressed the students and informed them to excel in all fields. Advised the students to be curious, creative and Innovative.



### Ice Breaking sessions -

Interacted with the students for Team formation. Teams are formed based on the month of birth. 12 Teams were identified. Group leaders have been nominated. Each team has to designate their team name



**Briefing about the Clubs/Placement/Alumni/Library etc.**

- Students were given awareness about central Facilities so that they can use it whenever they need



**Thought for the day** - A discussion was held on a few sayings and quotes and associated it with real instances, which made the students to realize the fact that we've stopped discussing about old sayings and thoughts and somewhere or the other we are losing on our basic values. It inspired students to re-install in us an application of values for living a life of joy!!



**Universal Human Values** - The students were mesmerized by the warm words, explored the awareness of human values and habits that one can control whilst in their journey of 4 years. Students are requested to conduct such kind of awareness programs from the department.



**Creative Arts Pidilite Craft** - Students were involved in learning and developing in essential ways while they're making a beautiful mess which results in making creative. They were relaxed at the same time enjoying in creating a beautiful painting. For many of them it was the first they have put their effort and skill in creating painting which they will be proud.



Mrs. Bharathi R, Dr. Anupama, Mr. Anand R, Mr. Jagadish.P, Ms. Arunakumari B. N. has attended the 'ICE-Breaking Session training' at CSE Seminar Hall, organized by BMSIT&M for Induction Program-2019 during 26<sup>th</sup> July 2019.



**Open courses** - Department of CSE has conducted 5 open courses from 22<sup>nd</sup> to 26<sup>th</sup> October 2019, total 228 students participated in these courses, 11 external resource persons from industry and academia shared their expertise with along with internal resource persons. Majority of the content delivery was hands on mode



## Students Workshop conducted/ organised

Mrs Chethana Coordinated for Ayurveda health check-up camp as a part of work registrations. Totally 166 staffs are benefited from the health camp.



Dr. Sunanda Dixit Conducted Workshop on neural networks a "Girls Geek" program on 24<sup>th</sup> August 2019. First session is on Feature Engineering methods and Applications by Ms.Adarsa, Teach Lead from EKStep and Mr. Shakeel Ahmed from ML Square

Dr. Sunanda Dixit, CSE department Coordinator for Google Cloud Career Readiness program and Google Cloud Study Jam organized on 23<sup>rd</sup> August 2019.

## Seminars / Expert Talks

This should cover seminars conducted by the department and talks given by subject experts.

### Expert talk organized

Mr. Mubashir Mohammed (Alumni 2009 batch), Team Lead, Autodesk India Pvt. LTD, Bengaluru & Mr. Darshan B S (Alumni 2011 batch) Senior Software Engineer, Fidelity Pvt. LTD, Bengaluru has given the “**Career Guidance**” session for the current trends in IT Companies to be success in career for the First sem CSE during 10<sup>th</sup> August 2019.



Ms. Neelakshi Naik, HR, MUSIGMA, Bengaluru (Alumna 2014 batch) delivered the Talk on “**Tips and Tricks to crack an Interview**” for the first semester CSE Students on 31<sup>st</sup> August 2019.



# Departmental Co-Curricular Activities

This should cover activities like blended classes / quiz, etc.

## OBE activity

Conducted partial delivery on Module five for Artificial Intelligence subject. The various concepts of natural language processing were discussed by Dr sunanda dixit On 8<sup>th</sup> November 2019, by Mrs Chethana C and Mrs. Shruthi J from Department of CSE.



### **Other activities like blended class, poster presentation, quiz...etc**

Students of ISE and ECE department have given Seminar on the topics Scripts and the conceptual dependency for the subject Artificial Intelligence 5<sup>th</sup> semester. Coordinated by Mrs Chethana C on 14<sup>th</sup> November 2019



The demonstration of various mini projects was given by the students of seventh semester B section students for the subject Machine Learning. Coordinated by Mrs Chethana C



## Publication of Research Papers by the Faculty Members, BMSIT&M

This should cover only papers published by national / international magazines / journals with volume, ISSN Nos, impact factor, etc.

### International Journal

1. Mrs Shruthi.J,” Modelling Simple and Efficient Data Transformation Scheme for Improving Natural Language Processing”, International Journal of Innovative Technology and Exploring Engineering , ISSN2278-3075,Vol-9,Issue-3, Jan 2020
2. Shankar R, “Corpora Based Classification of Reviews in Kannada Language”, International Journal of Recent Technology and Engineering, ISSN:2277-3878, Volume-8, Issue-5, January 2020
3. Dr. Mahesh G, Dr. Satish Kumar T, “Real Time Traffic Light Detection by Autonomous Vehicles using Artificial Neural Network Techniques”, International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8, Issue-10, August 2019.

### International Conference

1. Sunanda Dixit, Karan Agnani, Visas G Pai, Vaishna Priyan S R and Vivian Claud Rodrigues, 3D Reconstruction of 2D X-Ray Images, 4th IEEE International Conference on Computational Systems and Information Technology for Sustainable Solutions [CSITSS-2019]. RVCE, 22-23 Dec 2019
2. Nithya C L, Sunanda Dixit, Khodhanpur B I, Prediction of breast cancer using Find-S and Candidate elimination algorithm, 4th IEEE International Conference on Computational Systems and Information Technology for Sustainable Solutions [CSITSS-2019]. RVCE, 22-23 Dec 2019.
3. Vidya R, "A Novel Schema for Secure Data Communication over Content-Centric Network in Future Internet Architecture", Computational Statistics and Mathematical Modelling Methods in Intelligent Systems, September 2019, SCOPUS and Web of Science, Springer-Verlag Berlin Heidelberg 2019.

### Patents Filed

Dr. Mahesh G, Associate Professor, Dept. of CS&E has filed a patent titled “A design and method for automatic pet watering and food feeding system using IOT’

## FDP /Workshops/STTP attended

1. Mr. Muneshwara M S and Mr. Anand R, Assistant Professors, Dept. of CSE attended One week FDP on "Application of optimization Technique & Number Theory in Engineering Sciences" from 16<sup>th</sup> to 21<sup>st</sup> January 2020 at Ramaiah Institute of Technology, Bengaluru-560054.
2. Mrs. Vidya R Assistant Professor, Dept. of CSE attended One week FDP on "5G communication Networks and its Future Perspective" from 6<sup>th</sup> to 11<sup>th</sup> January 2020 at Ramaiah Institute of Technology, Bengaluru-560054.
3. Mrs Srivani P, Mrs Durga Bhavani, Mrs Shruthi J, Mr Rajesh and Mrs Mari Krithima Assistant Professors, CSE had attended One week FDP on "Predictive Analytics in Business Intelligence" at Ramaiah Institute of Technology, Bengaluru-560054 from 13<sup>th</sup> 18<sup>th</sup> January 2020.
4. Mr Shankar R, Mr Venkatesh Banagar, CSE had attended One week FDP on "Modern Web Application Development using MEAN Stack" at Ramaiah Institute of Technology, Bengaluru-560054 from 6<sup>th</sup> to 10<sup>th</sup> January 2020.
5. Mrs Bharathi R ,CSE had attended a two days workshop on Cyber Security in IISC Bengaluru on 25<sup>th</sup> to 26<sup>th</sup> of Jan 2020.
6. Mrs. HemaMalini B H, Associate Professor, Department of CSE attended a 5-days workshop under AICTE Training and Learning (ATAL) Academy FDP on "BlockChain", from 16<sup>th</sup> to 20<sup>th</sup> December 2019, at NITK, Surathkal.

## Online Course completed

1. Dr.Sunanda Dixit, Associate Professor, CSE department has completed "Essential cloud infrastructures Foundation" on 11<sup>th</sup> December 2019.
2. Dr.Sunanda Dixit, Associate Professor, CSE department has completed "Elastic cloud infrastructures – Scaling & Automation" on 2<sup>nd</sup> November 2019.
3. Dr.Sunanda Dixit, Associate Professor, CSE department has completed "Google Cloud Platform Fundamentals : Core Infrastructure" on 15<sup>th</sup> November 2019.
4. Dr. Sunanda Dixit, Associate Professor, CSE department has completed "Essential cloud infrastructures - Core Services" on 15<sup>th</sup> November 2019.

# Future Technology Conquering

## Robotic Process Automation (RPA)

Robotics Process Automation(RPA) allows organizations to automate task just like a human being was doing them across application and systems. Robotic automation interacts with the existing IT architecture with no complex system integration required.



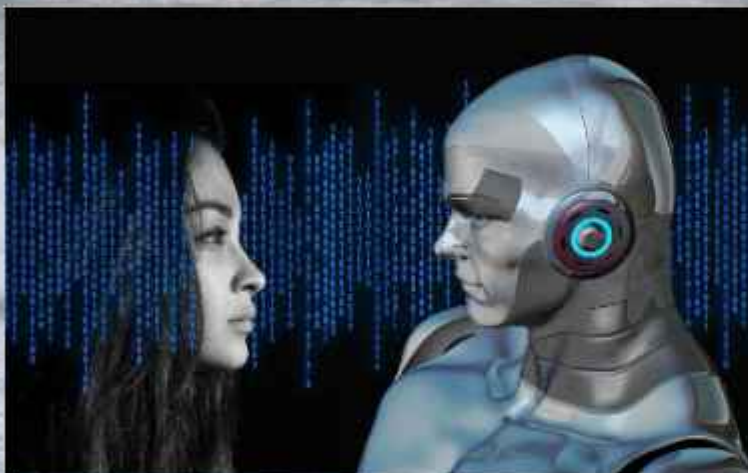
RPA can be used to automate workflow, infrastructure, back office process which are labor intensive. These software bots can interact with an in-house application, website, user portal, etc. The RPA is a software program which runs on an end user's pc, laptop or mobile device. It is a sequence of commands which are executed by Bots under some defined set of business rules.

The main goal of Robotics process automation process to replace repetitive and boring clerical task performed by humans, with a virtual workforce. RPA does not require the development of code, nor does it require direct access to the code or database of the applications.

# Why Robotic Process Automation?

Consider the following scenario in a typical enterprise

- The business climate is ever changing. An enterprise needs to continuously evolve its product, sales, marketing, etc. process to grow and stay relevant
- A typical enterprise uses multiple and disconnected IT systems to run its operations. With change in Business process, these IT systems are not changed frequently due to budget, timing, and implementation complexity issues. Hence, the business process does not map the technical process mapped in the IT system.
- To overcome this technical and organization debt human workforce is hired to fill the gap between systems and processes. Example: A company made changes in Sales process such that a mandatory 50% advance is required to confirm the booking of its product. But this is not coded in the IT system yet. A human worker will have to manual check the Invoice and payment details and process the sales order only if 50% advance is made.



## The problem? --- Humans

With any change in the business process, a company would need to hire new employees or train existing employees to map IT system and business process. Both solutions are time and money consuming. Also, with any succeeding business process change will also need hiring or re-training.

## Here, are some reasons why Robotics Process Automation is advantageous

- A human can work average 8 hours a day whereas robots can work 24hours without any tiredness.
- The average productivity of human is 60% with few errors as compared to Robot's productivity which is 100% without any errors.
- Robots handle multiple tasks very well compared to a human being

# Editorial Team

## Staff Editor:

**Mr. Muneshwara M S**  
**BE M.Tech, (Ph.D)**  
**Assistant Professor**



## Student Editor:

- ✓ **Mr K B Hemanth Raj**
- ✓ **Student of BMSIT & M, who is Currently Studying in 6<sup>th</sup> Semester – 1BY18CS404.**
- ✓ **Has Worked more than 7 Innovative Projects.**
- ✓ **Currently working on his WEBSITE: “Future Vision BIE”**
- ✓ **<https://HemanthRajHemu.github.io>**
- ✓ **Which is a Study Resource for Students.**
- ✓ **His website was successfully accessed by more than 3500+ students across Karnataka, having a success rate of 95% in December 2019 & January 2020 VTU Examination (Specially for 6<sup>th</sup> Semester students).**

