



Bapuji Educational Association (R.)  
**Bapuji Institute of Engineering & Technology**  
 Davangere - 577004



(AFFILIATED TO VTU BELAGAVI, APPROVED BY AICTE, NEW DELHI)  
 ACCREDITED BY THE NAAC WITH 'A' GRADE

*Department of Computer Science & Engineering*

**UniCS**



**THE TECH MESSENGER**

News Letter - Volume of the Year  
 August 2019- July 2020

## **Institute Vision**

“To be center of excellence recognized nationally and internationally, in distinctive areas of engineering education and research, based on a culture of innovation and invention.”

## **Institute Mission**

“BIET contributes to the growth and development of its students by imparting a board based engineering education and empowering them to be successful in their chosen field by inculcating in them positive approach, leadership qualities and ethical values.”

## **Department Vision**

“To be a center-of-excellence by imbibing state-of-the-art technology in the field of Computer Science and Engineering, thereby enabling students to excel professionally and be ethically st.”

## **Department Mission**

- M1: Adapting best teaching and learning techniques that cultivates Questioning and Reasoning culture among the students.
- M2: Creating collaborative learning environment that ignites the critical thinking in students and leading to the innovation.
- M3: Establishing Industry Institute relationship to bridge the skill gap and make them industry ready and relevant.
- M4: Mentoring students to be socially responsible by inculcating ethical and moral values.

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

- PEO1 - To apply skills acquired in the discipline of Computer Science and Engineering for solving societal and industrial problems with apt technology intervention
- PEO2 - To continue their career in industry/academia or to pursue higher studies and research
- PEO3 - To become successful entrepreneurs, innovators to design and develop software products and services that meets the societal, technical and business challenges
- PEO4 - To work in the diversified environment by acquiring leadership qualities with effective communication skills accompanied by professional and ethical values

## **Program Specific Outcomes (PSOs):**

- PSO1- Analyse and develop solutions for problems that are complex in nature by applying the knowledge acquired from the core subjects of this program.
- PSO2- To develop Secure, Scalable, Resilient and distributed applications for industry and societal requirements.
- PSO3- To learn and apply the concepts and construct of emerging technologies like Artificial Intelligence, Machine learning, Deep learning, Big Data Analytics, IoT, Cloud Computing, etc for any real time problems.

## Newsletter Objectives

- Achievements of the Students and Faculty members from the CS & E department in Curricular, Co-curricular and Extra-curricular Activities.
- The Recent trends in the area of Computer Science & Engineering and related areas.

## About the Department

Department of Computer Science and Engineering was established in 1984 as an academic center for undergraduate studies in engineering. Department offers Undergraduate, Post graduate and research programs in Computer Science and Engineering field and is affiliated to Visvesvaraya Technological University, Belagavi, Karnataka. Undergraduate program is accredited two times by NBA.

It is supported by well qualified faculty, non - teaching staff and best - in - class Infrastructure. The faculty members are actively involved in research and development. The staff members have also won the awards from reputed IT organizations like Infosys, IBM and Wipro and achieved academic excellence. 12 faculty members are pursuing research at reputed universities. Department has applied for one Indian patent in the field of Cluster head election Strategy. One of the faculty members has got best paper award in the URENG conference held at Dubai. Department has produced 5 doctorates in last 10 years.

The Department of Computer Science and Engineering of BIET has been at the forefront of churning out software engineers with a high caliber of technical expertise. It continues to foster and engender the innovation and breadth of vision necessary to excel in the blooming software industry.

# From the Editorial...

*Greetings to all!*

*The department is cheerful to present the latest edition of the Department of CSE Newsletter. It motivates, enlightens and enables the Student & Staff community to focus on their goals and achieve more. This newsletter explores the hidden talents, commitment, involvement and achievements of the Department Students and Staff Community in their Extra and Co-Curricular activities to the world.*

*The yearly newsletter of the Department of CSE covers the information about the Faculty Development Programme, faculty participation, student activities.*

*We look forward to your continued contribution and participation in this Newsletter. Your good ideas, comments or valuable suggestions about this Newsletter are welcome. This may lead to enhance the quality and professionalism of this newsletter in forth coming editions. Thank you for choosing and spending time with this newsletter.*

*We hope, this Newsletter encourage you to conquer more in your field.*

*sd/-*

*Editorial*



### Message from HOD's Desk:

I feel indeed that Department of Computer Science & Engineering is releasing its Annual Newsletter Tech Messenger on 18/09/2020. Faculties of our department are highly encouraged to carry out their research work. Our forum Unics is a platform to bring out the hidden talents of students. Department has organized many Technical Talks, workshops, hackathons for students and FDPs for faculties. This newsletter will highlight all such activities. I congratulate editors of the Newsletter for their effort in bringing out this Newsletter colorfully with all the events covering from August 2019 to July 2020. I wish them all the success.

**Dr. Nirmala C.R.**  
Prof. & Head,  
Dept. of CS&E

## NEWS LETTER COMMITTEE

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## Department Activities

- Department has organized a discussion with BEZZIE INNOVATION LAB delegates and all the CS&E faculty in connections with establishing “BEZZIE INNOVATION LAB INCUBATION CENTRE” on 16th August 2019.



**Bezzie team being mentored by Mr. Nagendra Prasad**

- Department has conducted “C Quest” for all the CS&E and other branch students on 30th August 2019.
- Department has conducted “Forum Inauguration and Fresher’s day Function” for 3rd semester students on 5th Sept 2019.



**Forum Inauguration and Fresher's day function**

- Sandesh K has given a Technical Talk on “Digital Marketing” for all CS&E students on 14th Sep 2019.
- Department has organized 3-days Workshop on “TEKHACK-19” by SMARTBRIDGE In collaboration with IBM for all CS&E and other branch students on 19/09/2019 to 21/09/2019.



**TEKHACK-19 Hackathon organised by SMARTBRIDGE in collaboration with IBM**

- Dr Gayathri and Dr. Sarah gave Awareness Program on “Oral Hygiene” for all CS&E students on 23rd Sep 2019.



**Awareness Program on “Oral Hygiene” by Dr Gayathri and Dr. Sarah**

- Webinar on InfyTQ Certification, Orientation Program on Infosys Recruitments and Infosys Visits was organised to enlighten students about opportunities to secure a job at Infosys on 30th Sep 2019.
- Inauguration of BPL-12.0 an Inter-Departmental Cricket Tournament was held on 10th Oct 2019. Dr. M.S Nataraja Dr. Nirmala C R along with faculty from various departments inaugurated the function.
- Department has organised "UiPath-RPA Academic Challenger 2019". The program enables learning and invites the institutions to join for the first UiPath Academic Challenge and help identify – “UiPath Academic RPA Champ” on 31st Oct 2019.



**UiPath Academic RPA Program and Volunteers of the program**

- Department hosted the “IBM Digital Developer Conference “ on 19-11-2019 virtually. 100 students from pre-final and final year have attended the program.



### **IBM Digital Developer Conference**

- VMWare IT Academy day was held in the department on 21-11-2019. Around 400 students participated in the event and earned 1000 badges.



### **VMWare IT Academy Day**

- "Internal Hackathon for Smart India Hackathon 2020", was conducted on 7th Feb 2020. Smart India Hackathon 2020 is a nationwide initiative to provide students a platform to solve problems faced nation-wide.

- Department conducted "TCS Tech-Bytes" on 25th Feb, 2020. It is an IT quiz competition which provides a better understanding of IT as Technology and is open to all stream students. Preliminary round will be held at Institute level.
- On Eve of International Women's Day 2020 : women's Cyclothon was organised. In the context of "An equal world is an enabled world".



### International Women's Day Celebration

- VMWare IT Academy day was held in the department on 21-11-2019. Around 400 students participated in the event and earned 1000 badges.

## Faculty Participation

- Dr. Pradeep N has attended 5 day FDP on “IMPLEMENTATION OF OBE IN HIGHER EDUCATIONAL INSTITUTIONS”, held at SIT College Tumkur from 8th -12th July 2019.
- Prof. Shilpa K.C has attended 5 day workshop on “Effective Teaching “organized by BIET, in connection with National Institute of Technical Teachers Training and Research, Kolkata on 15th- 19th July 2019.
- Prof. Naseer R has attended 5 day training program on “Machine learning and Deep Learning with Python Programming” held at VTU Centre for Post Graduate studies, Muddenahalli, Chikkaballapur, Karnataka on 22nd-26th July 2019.
- Prof. Arun Kumar G.H and Prof. Naveen K.R has attended one day workshop on “IOT In AGRICULTURE : Karnataka Focus” on 17th August, 2019 held at Department of Electrical Engineering, Indian Institute of Science campus, Bengaluru.
- Dr. Chethana Prakash has been invited as a Resource person on “Artificial Intelligence” held at Alva’s Institute of Engineering and Technology, Mijar, Moodbidri, from 13/09/2019 to 14/09/2019
- Dr. Nirmala C.R, Dr. Pradeep N, Dr. Ashoka K , Dr. Roopa G.M, Dr. Vinutha H.P, Prof. Santosh K.C has attended one day workshop on theme “Augmenting Skills, Accelerating growth”, Organized by ICT Academy BRIDGE-19 on 24th Sep 2019 at Taj Hotel, Bengaluru.
- Dr. Nirmala C.R, Prof. Santosh K.C, Prof. Shravani K gave a presentation on “ Digital Dentistry ” on 18th Sep 2019 for the Doctors, Professors, PG students and lab technicians of College of Dental Sciences, Davangere.
- Dr. Roopa G M, Naveen Kumar K R, Arun Kumar G H, Dr. Nirmala C R have published a Book-chapter with title “Optimized Data Mining Techniques for Outlier Detection, Removal, and Management Zone Delineation for Yield Prediction” for the Book with title “Modern Techniques for Agricultural Disease Management and Crop Yield Prediction” by IGI Global publishers USA (SCOPUS Indexed).

- Dr. Nirmala C R and Anup kumar M Bongale have published a paper with title "Firefly algorithm inspired energy aware clustering protocol for wireless sensor network" in International Journal of Communication Networks and Distributed Systems Inderscience Publishers (IEL).
- Dr. Nirmala C R and Sankhya Nayak have published a paper with title "Text localization in scene images with SURF and support vector machine for multilingual text" in 2019 International Conference on Data Science and Communication (IconDSC) – IEEE.
- Dr. Nirmala C R and B R Sreenivasa have published a journal with title "Hybrid location-centric e-Commerce recommendation model using dynamic behavioral traits of customer" in Iran Journal of Computer Science Springer International Publishing.
- Dr. Pradeep N has published a book chapter with title "Automatic Data Acquisition and Spot Disease Identification System in Plants Pathology Domain: Agricultural Intelligence System in Plant Pathology Domain" for the Book with title "Modern Techniques for Agricultural Disease Management and Crop Yield Prediction", IGI Publishers, USA (Scopus Indexed).
- Prof Shilpa K C has published a paper with title "Comparative Analysis of native and Web -Based mobile Applications" in International Journal of Emerging Technology in Computer Science and Electronics.

## Alumni Corner

### Mr Nagendra Prasad

*Director at American Express*



In today' s world, Data is the key and the goal of my current job is to make sure that Data reaches in the form and shape to the Data Scientists who can then get going on their learning and modeling using complex AI and ML. Successfully running engineering and innovation with teams that are in remote locations is also very key. In the previous stint at Amazon, I worked as a Sr Software Development Manager for building a scalable platform in the Fin-tech space for the spend and expense management, Cost allocation and the ledger bookings as part of liability and payment accruals. In the previous stint worked at Net App as an Engineering Director for one of its big data platform and part of the team that dabbles with bridging the gap between the bleeding edge technologies that are not yet enterprise-ready but has huge potential and making them enterprise-ready also with world-class technology leaders. A leader who believes in building long-lasting partnerships laden with Trust Integrity and simplicity and with peers across the spectrum, more importantly, empowering and equipping the team to accomplish the goals and objectives. In Amazon within a span of 6 months, build a team of double digits which is a herculean task as the bar of hiring is very high on Amazon. Has been part of a big data and analytics journey at Net App for their telemetry data and was instrumental in leading a team for three generations of data processing platforms. A leader who believes in "Not worry about things that you don't have control over on the things that you have control over, hit the ball out of the park". Motivator and a leader who can do the walk the talk with a no-nonsense approach to work Won the prod ops innovation award for leading this team in the Net App product leadership meet in Vegas in Feb 2013. In the past, build teams from scratch and helped them engineer world-class frameworks and products and can keep the team motivated and make sure that they can invent and simplify things with right focus and direction.

## Student Corner

### Gaurav Soni

Student  
CS&E,  
2017-2021 batch



**Title: " Hosting and it's types"**

Hosting any website/web application on a live server can sometimes become difficult if proper steps are not taken while deploying it. There are mainly 3 different types of hosting:

Shared Hosting – Usually used for small (single page) websites with limited traffic.

VPS Hosting – VPS ( Virtual Private Server ) hosting is used for websites with good amount of content and medium to high traffic.

Dedicated Hosting – This hosting is generally used for large business websites with a lot of content and high traffic.

In this article, we will be discussing mainly about VPS hosting.

VPS: VPS or Virtual Private Server is a single physical machine used by many of its users. A physical server somewhere in the world equipped with virtualization serves its users as a separate dedicated system for them to use. It divides the available resources among the different users and for each of its users, it appears as if they are using a separate dedicated machine.

Points to be kept in mind before hosting:

- Make sure the server OS is updated and software which it uses are up to date.
- Check with the version of the local environment packages and libraries to be the same as on the VPS also.
- If the versions are different, make sure you uninstall the existing versions and install the required same versions on the server.
- Choose a server which will run on your VPS's OS to serve your website files. ( In this article we will use Nginx).
- Always check that whether your hosting provider has a good support for its customers or not.

## Alumni Corner

### Dr Chethana Prakash

*Professor,  
CSE Department, BIET*



#### **Title: "Role of discipline for college students"**

Self-discipline is one of the high traits of human personality. The concept of discipline is as old as man's wish to form a civilised society. In other words, discipline is the prerequisite of civilised society. It is quite indispensable to peaceful and orderly co-existence of human beings. In everybody's life there is the need of some rules and regulations to run the life smoothly.

Disciplined life is always appreciated by everybody, even those who are highly disciplined. Discipline is the base of whole universe. Even the heavenly bodies such as the Moon, the earth and the other planets follow rules. They move on the set orbit around the sun. The sun rises and sets at the fixed time. The earth completes its round of the sun in fixed hours. The waxing and waning follow time. The nights and days follow each other following some rules. All such movements are governed by some law of nature.

Man's life without discipline is nothing. The man can't get success in life. If he/she has to get progress, stability and strength in life he/she will have to follow some rules in life. For all walks of people, it is necessary .

# Art Gallery

