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MAGAZINE

NEWSLETTER (JANUARY-JUNE 2024)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACREDITED BY NATIONAL BOARD OF ACREDITION

Vision

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

MISSION

Facilitating and exposing the students to variouslearning 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 to reason 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 teamwork: 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 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 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 society.

PROGRAM OUTCOMES

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 a feasible solution(s)
5. Relate the learning outcomes to build requisite competency in a professional environment.
6. Appraise the need for engaging in lifelong learning

HOD's Desk

Dr. Thippeswamy G BE, ME, Ph.D.

I am extremely happy to share with you the progress; Department of Computer Science & Engineering has made during the 2023 – 2024 even semester. The Department has been one of the most vibrant among all, in terms of students, faculty, facility, placements, internships, and incubation centres. The department is recognized as a Research Centre by VTU and 18 scholars who have enrolled for Ph.D. The department is supported by 35 qualified and experienced faculty members with Nineteen Doctoral degree holders in different domains. The 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 Eighty thousand rupees per month. The Department has adopted the practice of Outcome-Based Education (OBE). The Undergraduate Programme is accredited by National Board of Accreditation (NBA), New Delhi, and Permanently Affiliated to Visvesvaraya Technological University (VTU), Belagavi.

The department has set up student chapters like the IEEE student club and CSI on 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. With this, I am very confident that the department is poised to take on challenges to meet the industrial and societal needs in years to come...

TEACHING STAFF

Professors

Dr. Sanjay H A
BE, M.Tech, Ph.D.
Professor & Pricipal

Dr. Anil G.N
BE, M.Tech, D.Sc
Professor & Vice Pricipal

Dr . Thippeswamy G
BE, ME, Ph.D.
Professor & HOD

Dr. Arunkumar B R
BSc, MCA,M.Phil(CS),PhD
M.Tech (CSE), PGDIPR-NLSIU

Dr. Bhuvaneshwari C M
B.E., M.Tech. , Ph.D

Associate Professors

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

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

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B.E, M.Tech,Ph.D

Dr. Satish Kumar
B.E, ME, Ph.D
PG Coordinator

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B.Sc, MCA, Ph.D

Assistant Professors

Mrs. Vishakha Yadav
B.E, MBA, MSc(Engg. by Research),Ph.D

Dr. Muneshwara M S
B.E, M.Tech, Ph.D

Dr. Anand.R
B.E, M.Tech, Ph.D

Mrs. G.Y.Durga Devi
B.Tech, M.Tech

Mr. Jagadish.P
B.E, M.Tech, Ph.D

Mrs. Durga Bhavani A
B.Tech, M.Tech

Assistant Professors

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Dr. Ashwini N
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B.E, M.Tech, Ph.D

Mrs. Mari Kirthima
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Dr. Srivani P
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Dr. Shankar R
B.E, ME, (Ph.D)

Dr. Arunakumari B N
B.E, M.Tech, Ph.D

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B.E, M.Tech, Ph.D

Assistant Professors

Dr. Lakshmi B N
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Dr. Dhanalakshmi
B.E, M.Tech, Ph.D

Ms Brunda S
B.E, M.Tech

Ms. Goutami
B.E, M.Tech, Ph.D

Assistant Professors

Dr. Jai Arun Jose G
B.Sc., MCA, M.Phil., Ph.D.

Mrs. Tanya Chandra
B.E, M.Tech

Mrs. Shilpa M
B.E, M.Tech

Non Teaching Staff

Sri. Shivaprasad HONNATAPPA
Assistant Instructor

Sri. M. AdinarayanaREDDY
Instructor

Smt. Ragini T N
Instructor

Smt. Bhagya. M
Instructor

Sri. Venkatesh Banagaar
Assistant Instructor

Sri. Hareesh Naik
Assistant Instructor

Smt. Rosary Josepene Mary
Second Division Assistant

Faculty As A Resource Person:

1. Prof. Shankar R, Asst. Prof, CSE visited Zimbabwe to act as RPA Consultant and Trainer for the client Ecocash from 20.02.2024 to 6.03.2024.

Faculty Awards:

1. Dr. HemaMalini B. H, Associate Professor, Dept of CSE received the Top 10 Professors Shaping Minds in India (Year 2023) award by Hindustan Times, and her journey was published by the web magazine, Educador on 7.2.2024.

2. Dr. Bhuvaneshwari Secured a Grant of ₹7,85,000 for Refresher Course Development.

3. On May 29, 2024, Dr. Muneshwara M S was awarded his Ph.D.

4. On June 10, 2024, Dr. Anand R was awarded his Ph.D.

5. On May 29, 2024, Dr. Ambika GN was awarded his Ph.D.

6. On May 29, 2024, Dr. Shankar R was awarded his Ph.D.

Student Awards:

1. Swaroop Group, 5th-semester CSE students has been honored as one of the best innovative projects for the Dr. S. K. Shivakumar State Award by the Karnataka State Technology Association (KSTA), under the Government of Karnataka. Project titled "Facial Recognition Security System for Visually Impaired People,". The prize includes a citation along with a cash award of 10,000/-. The award was presented to the Swaroop Group on National Science Day at the KSTA office on 29.2.2024. under the guidance of Dr. Arunakumari B. N., Department of CSE.

2. The team team has won the Third Prize on "The WonderLens: Marker-Based AR Expedition of the 7 Wonders" is an innovative Augmented Reality (AR) project that was showcased in SRISHTI 2024, State Level Project Exhibition and Competition organized by SrishtiTech at Atria Institute of Technology, Hebbala, Bengaluru.

Outreach Activity:

1. The faculty and students of AR VR Hub BMSIT&M had hosted a 10-day outreach activity and training program for the students of Nagarjuna College of Management Studies at our campus from 1.6.2024 to 13.6.2024.

EVENTS CONDUCTED

1. The CISCO – "Programming Essentials in Python" course under the CISCO-Centre of Excellence was conducted 19.6.2024 -21.6 2024 Resource Person Mr. Vijaya Murugan, ICT Academy, Chennai.. A total of 106 Students had registered for the event. The students from all departments (CSE, ISE, ECT, ETE, Mech, CIVIL, AIML and MCA) and all existing semesters (2nd, 4th and 6th) participated in the event. Overall coordination: Dr. HemaMalini B H, Assoc Prof, Dept of CSE

Faculty Internship:

1. Dr. HemaMalini B. H, Associate Professor, Dept of CSE, completed the faculty internship on , during "Machine Learning", during 13.2.2024 to 23.2.2024 at Emberquest, Bangalore.
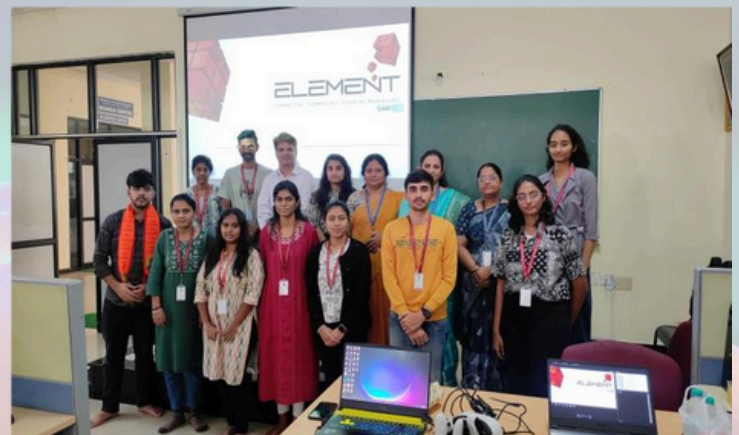
MEMORABLE MOMENTS / BEST PRACTICES

1. PTM was conducted for 3rd & 5th Sem on 20.01.24 in CSE Seminar Hall around 70+ parents had attended the meeting.

WORKSHOPS / FACULTY DEVELOPMENT PROGRAMMES/ FESTS

Students Workshop conducted/ organised:

1. Department of CSE has conducted a 6 days workshop on "WEB VR" for 3rd and 5th Sem students of CSE in collaboration with Element Technologies Inc. from 22.01.2024 to 27.01.2024 conducted Mr. Srinivas and Ms. Pragathi, Senior Software Engineers co-ordinated by Dr. Srivani. P and Prof. Bharathi R.

2. Department of CSE in collaboration with AICTE has conducted a 2-day workshop on "Creators of Metaverse with Meta Spark Studio" via virtual mode for the CSE students Phase 1 from 08.1.2024 to 09.01.2024 and Phase 2 from 29.01.2024 to 30.01.2024 coordinated by Dr. Srivani P.

3. **Title**: Application Development and Data Insights using "Oracle APEX" – Low Code Application Development Platform.

Workshop: To commemorate "International Girls in ICT day", Oracle Volunteering will be collaborating with ICT Academy in encouraging young women and girls to thrive in Science, Technology, Engineering and Mathematics (STEM) fields, "Software Development" being one such area. Through this exclusive technical hands-on workshop, the ORACLE team introduced the audience to APEX, Oracle's Low Code Application Development platform. Using APEX, these young developers quickly developed and deployed compelling apps that solve real problems and arrive at valuable data insights. This workshop gave them hands-on experience in creating their own First APEX based low code application, enhancing software development skills and opening up the avenues to leverage APEX for future projects.
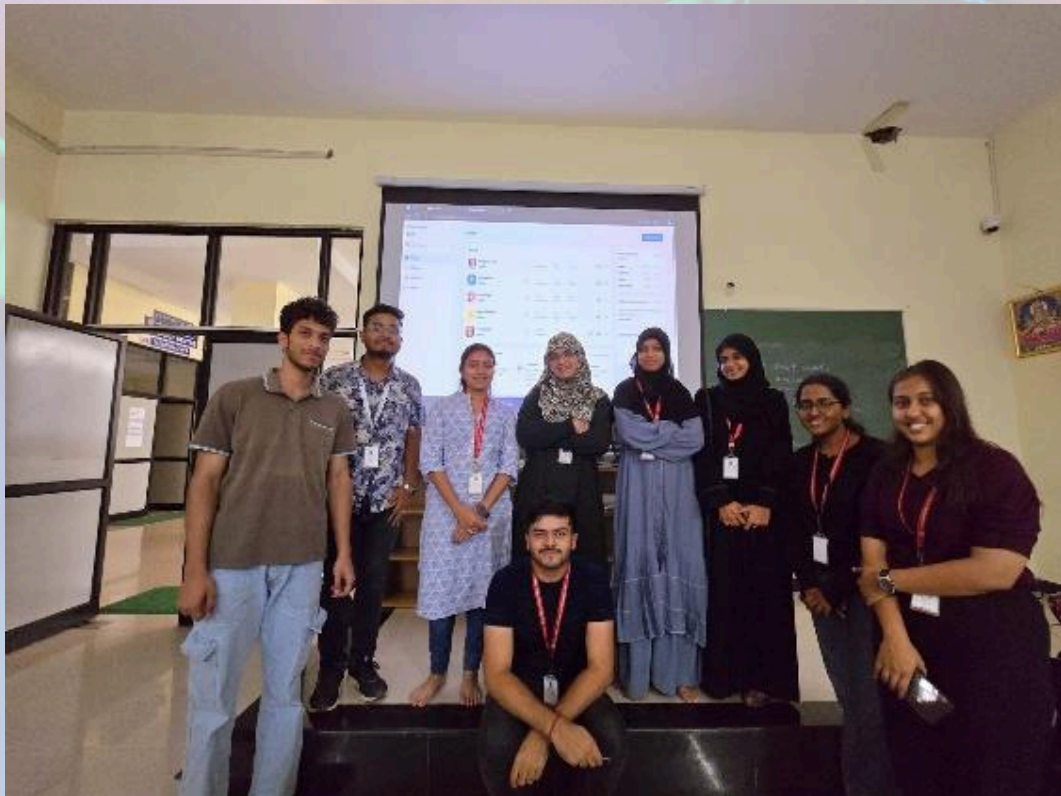
Presenters

1. Gowthami Gowda J S – Cloud Solution Engineer, Oracle
2. Angeline Hilda W – Cloud Solution Engineer, Oracle
3. Kamalesh Jayapandiaraj Arumugam – Cloud Solution Engineer, Oracle
4. Dr. Kamal Peter – Principal Specialist, Oracle Volunteering & CSR India
5. Dr. Ajay Ahuja – Senior Director, Solution Engineering Programs, Oracle JAPAC
6. Mr. Sai Chaduvula, Regional Account Manager- South India, ORACLE NetSuite Cloud ERP
7. Archana Perumal, IT Consultant, Oracle Application Lab

4. The Department of CSE had organized an 2 day workshop on " Industrial Application using Virtual Reality" through AR VR Hub on 17.5.2024 and 18.5.2024. Students from various departments had attended this workshop. Prof. Vetrimani Elangovan, from Presidency University gave hands-on experience to design a factory outlet through Virtual Reality.

5. Department of CSE organized a student workshop on MetaSpark Studio through our AR VR HUB oncreating filters with Metaspark AR on 21.6.2024.
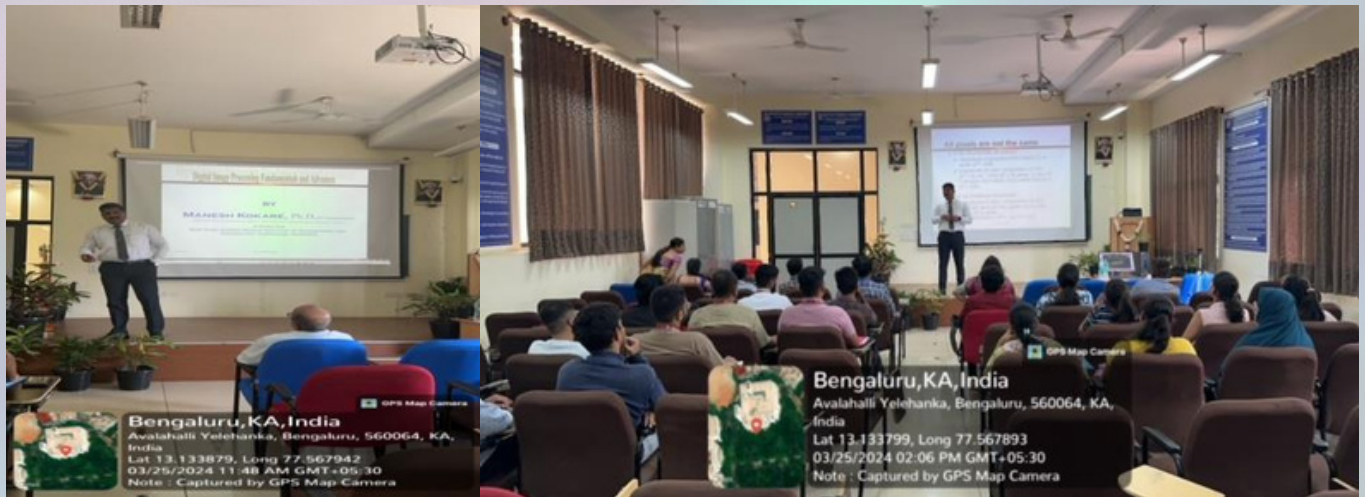
FDP conducted/organised:

Day 1. Department of CSE has conducted a Two week Refresher course on "Interdisciplinary cutting edge technologies in Science" from 25.03.204 to 06.042024 The refresher course was started with an inauguration led by esteemed dignitaries Dr. Vishwas Bapat as Convener, Dr. Sanjay HA Principal, Dr. Anil GN Vice Principal, Dr. Thippeswamy G HOD CSE, and Dr.Bhuvaneshwari CM Chief Coordinator. During the event, the convener emphasized the significance of grasping interdisciplinary technologies in his address to the participants.

Day 2. Dr. Vishwas Bapat, an Emeritus Scientist delivered the session on "Exploring Engineering opportunities within the realm of Biotechnology" as a part of Two weeks Refresher course from 10.50 a.m to 12.50 p.m on 25.03.2024.

Day 3. Dr.Manesh B. Kokare Ph.D.IIT Kharagpur delivered the session on "Wavelets and Application, Image Processing Applications- Case Study" as a part of Two weeks Refresher course from 1.50 p.m to 4.30 p.m on 25.03.2024.

Day 4. Dr Manesh Kokare delivered the session on "Challenges and Research Opportunities in Computer Vision and Image Processing, Computer Vision Application- Case Study of Diabetic Retinopathy, Effective Way of Research Paper Writing, and Research Funding Schemes" as a part of Two weeks Refresher course on 26.03.2024.

Day 5. Prof. Satwinder Singh, Central University Punjab delivered the session on "NLP, Tokenization Stemming, lemmatization, Hands on Workshop, Text Classification and Feature Extraction with ML library " as a part of Two weeks Refresher course on 27.03.2024.
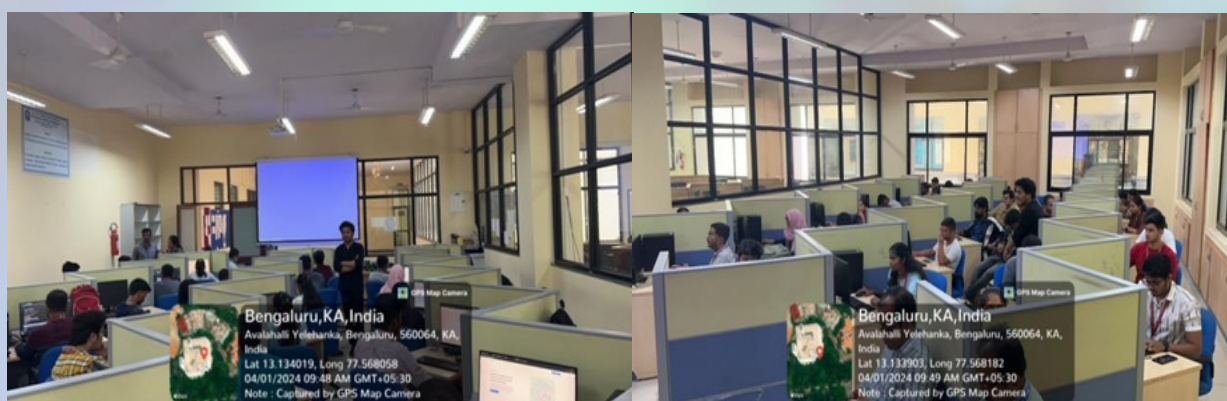
Day 6. Prof. Satwinder Singh, Central University Punjab delivered the session on "Topic Modelling with LDA, Text generation with LSTM with Hands on" as a part of Two weeks Refresher course on 28.03.2024.

Day 7. Mr.Ajinkya Lohakare, CTO and Founder of Ditto security delivered the session on "GPT-1 to GPT-3 advanced Applications and Hands-on Project" as a part of Two weeks Refresher course on 30.03.2024

Day 8. Mr. Ajinkya Lohakare, CTO and Founder of Ditto security delivered the four informative session on "Byte pair encoding (BPE).Sequence-to-sequence models and their applications in NLP" as a part of Two weeks Refresher course on 01.04.2024

Day 9. Dr. Vivek Borkar IIT Bombay hosted two insightful sessions on "Deep learning Concepts and Reinforcement learning techniques" as a part of Two weeks Refresher course on 02.04.2024

Day 10. Mr Kamlesh Joshi, EBTS Pune delivered the informative session on" Basics of Networking Subnets and Vlan Infrastructure Components and functions" as a part of Two weeks Refresher course on 02.04.2024
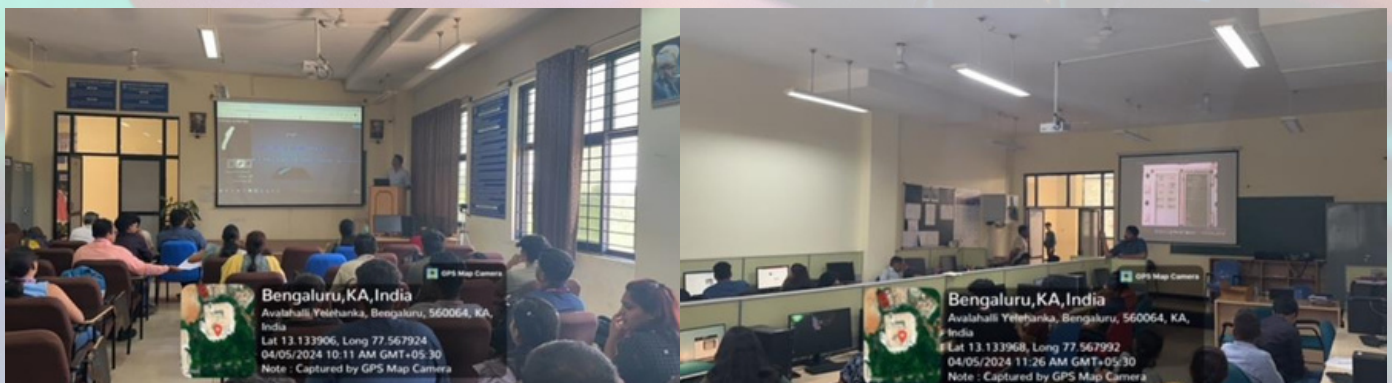

Day 11. Mr Kamlesh Joshi, EBTS Pune delivered the informative session on "Firewall, IDS/IPS, Gateway AV, Content filter, Ports and protocols, VAPT, Ethical hacking SIEM IAM and PAM" as a part of Two weeks Refresher course on 03.04.2024

Day 12. Dr. Jayant R Haritsa IISC, Bangalore delivered the informative session on "Recent advances in Database Systems, Robust Database Query Processing, Hidden Database Query Extraction" as a part of Two weeks Refresher course on 04.04.2024

Day 13. Dr.Chetan Singh Takur/Banhimitra Kundu/Adithya MD, IISC, Bangalore delivered the informative session on "ML on Edge, Tiny ML" as a part of Two weeks Refresher course on 05.04.2024.

Day 14. Dr. Chetan Singh Takur/Banhimitra Kundu/Adithya MD, IISC, Bangalore " Lab Sessions: Hardware Deployment 1, 2 and Gesture Recognition Demo and Deployment" as a part of Two weeks Refresher course on 06.04.2024.

DEPARTMENTAL PROFESSIONAL AND TECHNICAL ACTIVITIES:

1. Launched a club called AR VR HUB, at BMS Institute of Technology and Management. This initiative aims to foster innovation and provide hands-on experience in the rapidly growing fields of augmented and virtual reality. The launch of the AR VR Hub sets the stage for many more enriching and innovative experiences.

PUBLICATION OF RESEARCH PAPERS BY THE FACULTY MEMBERS

International Journal:
1. Jai Arul Jose, G., Mahammad Mastan, and Louay A. Hussein Al-Nuaimy. "Aspect based hotel recommendation system using dilated multichannel CNN and BiGRU with hyperbolic linear unit." International Journal of Machine Learning and Cybernetics (2024): 1-20.
https://doi.org/10.1007/s13042- 024-02184-6, ISSN: 1868-8071, E-ISSN: 1868-808X. (SCIE)

2. Komala R., Arunkumar B R et al, Protecting Data Privacy in Cloud Using Ethereum Blockchain Technology for the Case of Patients Electronic Health Record (EHR). International Journal of Intelligent Systems and Applications in Engineering, 12(3), 2024, 3718–3727.

ANY OTHER INITIATIVES BY THE DEPARTMENTS: (WHICH DOES NOT FALL IN THE ABOVE CATEGORIES)

The students of CSE comprising both 4th semester and final semester , through AR VR HUB had participated in SRISHTI Exhibition 2024 - Innovation Challenge, on 24.5.2024 to 26.5.2024, showcasing their talents in the cutting-edge fields of Augmented Reality (AR) and Virtual Reality (VR).

International conference :

1. Dr. Muneshwara M S, Assistant Professor, Department of CSE Presented a Paper Titled "A Novel Approach on Medical Health Record Management System Using Blockchain." at the International Conference on Intelligent Systems & Networks (ICISN 2024)-Swinburne, Hanoi, Vietnam, 22.03.2024 and 23.04.2024. The paper will be published in A Springer book series Lecture Notes in Networks and Systems (Book Chapter).

EDITORIAL TEAM

Dr. Muneshwara M S
B.E, M.Tech, Ph.D

STUDENT EDITOR

Reyyan Aleem Janbaz
5th Sem CSE