CANARA ENGINEERING COLLEGE

DEPARTMENT OF

COMPUTER SCIENCE AND ENGINEERING

HIGHLIGHTS

- **Staff Achievements**
- **Student Achievements**
- **Hands on session on Git and GitHub**
- **FDP on Cloud Practitioner (AWS)**
- **Hackathon - An Idea Competition**
- **Talk on An Introduction to Automation using UiPath**

"Sudhindra Nagara"
Benjanapadavu
Bantwal Taluk Mangaluru
Karnataka, INDIA

canaraengineering.in

EDITORIAL

Dr. Sunil Kumar B L
Associate Prof. & HOD
Dept. of CSE

Dr. Demian Antony D'Mello
Professor &
Dean Academics

Mr. Rakshith M D
Chairman
Assistant prof.
Dept. of CSE

STUDENT MEMBERS

Giridhar Kini

Preethi

Rakshitha H D

Rajath

Rachana Pai

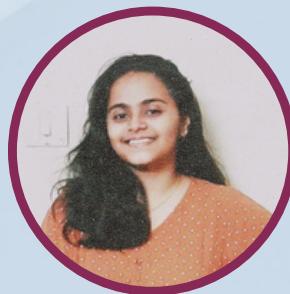**Neha Shet**

Kshama Bhaktha

Chaithra S

VISION

To be recognized as a center of knowledge dissemination in Computer Science and Engineering by imparting value-added education to transform budding minds into competent computer professionals.

MISSION

- Provide a value-based learning environment enriched with ethics, honesty and integrity that equips students to cater to the needs of society and industry.

- Augment the knowledge of students towards cutting-edge technologies and state-of-the-art tools of Computer Science & Engineering.

- Create opportunities for all-round development of students through co-curricular and extra-curricular activities.

- Promote research, innovation and development activities in the field of Computer Science among staff and students without any bias.

DEPARTMENT PROFILE

The department was started in the year 2001 to offer under graduate degree programme i.e **Bachelor of Engineering (BE) in Computer Science & Engineering (CS&E)**. The department also offers post graduate programme in engineering i.e. **MTech in Computer Science Engineering (CS&E) since 2011.** The department has dedicated, qualified and experienced faculty members to guide the students in academics. The faculty members are actively involved in teaching, product development and research. The faculty members have published number of research and review papers/articles in referred International journals and reputed International conferences which are archived at IEEE/ACM/Springer and other renowned digital libraries.

The department frequently organizes training programmes for the faculty, technical staff and students. The faculty frequently attends staff development programmes (SDP/FDP/Seminar) to update themselves in technological advancements and conferences to present research findings.The department aims at building the students' career by placing special emphasis on all-round development through continuous interaction with Industry. Interactive sessions with experts from academia, research laboratories and industry are constantly held so as to enable students to gain knowledge on diverse and emerging fields. The campus placement has been scaling higher and higher peaks right from its inception with multinational companies recruiting students in large numbers. To increase the opportunity of placements to students, the department conducts soft skills training programmes, technical skill development activities and initiatives on self-learning (Spoken Tutorial programmes by IIT Bombay).

The department promotes extracurricular activities under the umbrella of the students' association & SPECS. The department brings out Annual technical magazine and newsletter which provides an opportunity for the students and staff to publish innovative ideas, programming tips and articles on current trends in computing and technology. The students'association and National Service Scheme (NSS) wing frequently conducts various programmes to strengthen leadership skills, teamwork and communication; and awareness on protection of environment and social responsibilities.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

- Graduates will work productively as computer science engineers exhibiting ethical qualities and leadership roles in multi-disciplinary teams.

- Graduates will design and deploy software that meets the needs of individuals and the industries

- Graduates will adapt to the changing technologies, tools and societal requirements.

- Graduates will take up higher education and/or be associated with the field so that they can keep themselves abreast of Research & Development

PROGRAMME OUTCOMES (PO)

Engineering graduates in Computer Science and Engineering will be able to:

- **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

- **Problem analysis**: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

- **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.

- **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.

- **Modern tool usage:** Select/Create and apply appropriate techniques, resources and modern engineering and IT tools, including prediction and modelling to complex engineering activities, taking comprehensive cognizance of their limitations.

- **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.

- **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.

- **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the relevant scientific and/or engineering practices.

- **Individual and team work:**   Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.

- **Communication:** Communicate effectively on complex engineering activities with the engineering community and with the 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.

- **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.

- Life-long learning: Recognize the need for and above have the preparation and ability to engage in independent and life-long learning in the broadcast context of technological changes.

PROGRAMME SPECIFIC OUTCOMES (PSO)

- Computer System Components: Apply the principles of computer system software engineering to design, develop and deploy computer subsystems.
- Intelligent Internet Applications:Apply the knowledge of data storage, analytics and internet architecture in designing Internet based application.

NEW FACES OF CSE FAMILY

Mrs. Babitha Ganesh Kulal
Assistant Professor

Dr. Nagesh H R
Principal

STAFF ACHIEVEMENTS

PhD AWARDED

Dr. Nischay Kumar Hegde was awarded a PhD degree for the thesis titled "Cryptographic Schemes for Data Survivability in Unattended Wireless Sensor Networks" by Visvesvaraya Technological University, Belagavi.

WORKSHOP / WEBINAR ATTENDED

Mr. Kishor Shivathaya S has attended the Three Days International Workshop on "Research, Writing and Publishing in Reputed Journals", organized by Center of Excellence for Research, Innovation & Entrepreneurship in association with Internal Quality Assurance Cell at P.A. College of Engineering, Mangalore from 03/08/2023 to 05/08/2023.

Mr. Ajay Shet has attended the Three Days International Workshop on "Research, Writing and Publishing in Reputed Journals", organized by Center of Excellence for Research, Innovation & Entrepreneurship in association with Internal Quality Assurance Cell at P.A. College of Engineering, Mangalore from 03/08/2023 to 05/08/2023.

Mr. Janardhan Bhat K has attended the Three Days International Workshop on "Research, Writing and Publishing in Reputed Journals", organized by Center of Excellence for Research, Innovation & Entrepreneurship in association with Internal Quality Assurance Cell at P.A. College of Engineering, Mangalore from 03/08/2023 to 05/08/2023.

Mrs. Sukshma Shetty has attended the Three Days International Workshop on "Research, Writing and Publishing in Reputed Journals", organized by Center of Excellence for Research, Innovation & Entrepreneurship in association with Internal Quality Assurance Cell at P.A. College of Engineering, Mangalore from 03/08/2023 to 05/08/2023.

Mrs. Sowmya K has attended the Three Days International Workshop on "Research, Writing and Publishing in Reputed Journals", organized by Center of Excellence for Research, Innovation & Entrepreneurship in association with Internal Quality Assurance Cell at P.A. College of Engineering, Mangalore from 03/08/2023 to 05/08/2023.

Ms. Kavya A M has attended the Three Days International Workshop on "Research, Writing and Publishing in Reputed Journals", organized by Center of Excellence for Research, Innovation & Entrepreneurship in association with Internal Quality Assurance Cell at P.A. College of Engineering, Mangalore from 03/08/2023 to 05/08/2023.

Mrs. Namita A Amdalli has attended the Three Days International Workshop on "Research, Writing and Publishing in Reputed Journals", organized by Center of Excellence for Research, Innovation & Entrepreneurship in association with Internal Quality Assurance Cell at P.A. College of Engineering, Mangalore from 03/08/2023 to 05/08/2023.

Mr. Rakshith M D has participated in the Five Days National Level Online Faculty Development Programme on "Writing an Effective Research Article: Tips and Tricks" organized by Department of Civil Engineering, KLS Vishwanathrao Deshpande Institute of Technology, Haliyal, Karnataka from 03/10/2023 to 07/10/2023.

PAPER PUBLISHED IN JOURNALS/BOOK CHAPTERS

Mrs. Namita A Amdalli published a book chapter titled "**A comprehensive Review on Digital Forensics Intelligence**" in **Advancements in Cybercrime Investigation and Digital Forensics** book on 06/10/2023 in Taylor and Francis Group.

ONLINE COURSE

NPTEL

Mrs. Namita A Amdalli has successfully completed NPTEL Course on **Python for Data Science** during Jul-Aug 2023, organized by IIT Madras.

NPTEL

Mr. Rakshith M D has successfully completed NPTEL Course on **Accreditation and Outcome Based Learning** with **Elite+Gold** during Aug-Oct 2023, organized by IIT Kharagpur.

NPTEL

Mr. Vinay P has successfully completed NPTEL Course on **Accreditation and Outcome Based Learning** with **Elite+Silver** during Aug-Oct 2023, organized by IIT Kharagpur.

NPTEL

Mrs. Namita A Amdalli has successfully completed NPTEL Course on The Joy of Computing Using Python with Elite+Silver during Jul-Oct 2023, organized by IIT Madras.

STUDENT ACHIEVEMENTS

Mr. Pratyush and Mr. Shimil from 2nd year CSE has secured second place in Mangalore division table tennis tournament held at SDIT, Mangalore on 12/07/2023. Also qualified to play state level tournament at KIT, Tiptur.

Ms. Priya Nayak S from 2nd year CSE has secured second place in VTU level Mangalore division Badminton tournament held at NMAMIT, Nitte on 19/07/2023. Also qualified to play VTU state level tournament at BMS College of Engineering, Bangalore on 22/07/2023 and 23/07/2023.

Mr. Sakshath Rai from 5th semester CSE was selected as a **UiPath Student Developer Champion** on 17/11/2023. Your dedication and passion for automation and technology stood out during rigorous selection process.

Ms. Bhoomika and Ms. P Nidhi Padiyar from 5th semester CSE secured 2nd prize in **TechMaze** during 'CODEBLAZE' held at Sahyadri College of Engineering and Management on 7th, 8th and 9th December 2023.

Mr. Bilal Ahmed and Ms. Sivali Rao from 5th semester CSE secured 2nd prize in **Hackathon** (Company specific) during 'CODEBLAZE' held at Sahyadri College of Engineering and Management on 7th, 8th and 9th December 2023.

WORKSHOP/PAPER PRESENTATION/SEMINAR CONDUCTED

TALK ON INTRODUCTION TO FULL STACK DEVELOPMENT

Department of Computer Science and Engineering hosted a talk entitled Introduction to Full Stack Development for CSE students enrolled in their fourth semester in the AC Seminar Hall on 19/07/2023. Prof. Alok Ranjan, Asst.Professor, Dept. of CSE spoke on the JavaScript functionalities, back-end connectivity, and front-end development.

Ms. Neha, 4th Sem CSE continued the session and spoke about developing mobile applications. Mr. Havyas A. M, 4th Sem CSE led the discussion and provided an overview of block chain technology and its applications.

Mr. Sakshath Rai, 4th Sem CSE concluded by discussing the deep learning concepts and providing examples of real-time applications.133 students took part in the session in total. Ms. Saritha Suvarna coordinated the event.

TALK ON CHURNING ON THE ACADEMIC PROJECT JOURNEY: A ROADMAP

Department of CSE organized Talk on Churning on the Academic Project Journey: A Roadmap for 6th semester students of CSE on 21/07/2023 in AC Seminar Hall. Prof. Nischay kumar Hegde, Asst. Professor Dept of CSE was the resource person. Topics discussed were: Importance of Academic Project, Project areas, Framing Problem Statement, Survey through e-resources, Setting of Objectives, Adopting the Methodology, Best Practices, Implementation and Documentation. In total, 93 students participated in the session. Dr. Sunil Kumar B L, HOD, Dept. of CSE was present during the session. The event was coordinated by Mr. Rakshith M D.

HANDS ON SESSION ON GIT AND GITHUB

Department of Computer Science and Engineering organized a Hands-on session on Git and GitHub for 4th semester CSE students in Skill Lab on 26/07/2023. Prof. Rajgopal K T, Asst.Professor, Dept. of CSE and Mr. Kunal Kittur from 4th semester 'A' section gave insights into Git and GitHub. They also conducted hands-on sessions on different commands required to build a project using git. Mr. Mohammed Bilal Ahmed from 4th semester 'A' section continued the session with different technology certification courses and its importance for industry. About 114 students took part in the session. Prof. Saritha Suvarna coordinated the event.

HANDS ON SESSION ON JAVASCRIPT

Department of Computer Science and Engineering organized a Hands-on session on JavaScript for 4th semester CSE students on 02/08/2023 in the Skill Lab. Prof. Saritha Suvarna was the resource person. The event included a hands-on exercise including building registration forms, applying validation to all of the features used in the form and creating the websites. About 126 students attended the session. The event was coordinated by Prof. Rajgopal K.T.

FACULTY DEVELOPMENT PROGRAM (FDP) ON CLOUD PRACTITIONER (AWS)

Department of Computer Science and Engineering organized a Faculty Development Program on Cloud Practitioner (AWS) in association with IIC from 25/09/2023 to 29/09/2023. Faculties from various colleges participated in this FDP. Ms. S. Chitra Nayagam from ICT Academy was the resource person for the workshop. Ms. Pavitra D S, Asst. Professor, Dept. of CS&E coordinated the workshop.

INDUSTRIAL VISIT

Department of Computer Science and Engineering in collaboration with Institutions Innovation Council organized an Industrial Visit for for 4th semester CSE students to Niveus Solutions Pvt. Ltd, Mangalore on 02/09/2023. Sujith Kumar, Cloud Leader presented the insights of cloud technology, google cloud platform and security concerns of hosting an application into the cloud.

The session was continued by Adarsh Prabhu, Associate Director gave insights regarding GDG Cloud Mangalore. About 59 students with faculty members: Mr. Rajgopal K.T, Ms. Saritha Suvarna, and Mr. Alok Ranjan were benefited from this industrial visit.

FACULTY DEVELOPMENT PROGRAM (FDP) ON R-PROGRAMMING

Department of Computer Science and Engineering organized a workshop on R-PROGRAMMING for staff and faculty members on 18/10/2023 in the CSBS Lab. Dr. Praahas Amin was the resource person. He briefed about fundamentals of R environment, syntax to import and data manipulation using R. Also illustrated the data types used in R, arithmetic and logical operations with simple examples, generation of sequences and creation of vectors, creation of matrices from vectors using binding function, R Program on finding prime numbers by the method of Sieve of Eratosthenes using functions, developing R program for finding the Pearson and Spearman correlation coefficients.

HACKATHON - AN IDEA COMPETITION

The Department of Computer Science and Engineering, in association with the Institution's Innovation Council (IIC), organized "Hackathon-An Idea Competition" on 29/11/2023 in the Skill Lab. Dr. Nagesh H.R., Principal, and Dr. Demian D'Mello, Vice principal, inaugurated the event.

About 30 teams participated in the competition. Mr. Vinod Kumar M. V., Asst. Prof., Dept. of M. E., Mr. Sujit S. Pai, Asst. Prof., Dept. of ECE and Ms. Tara B. B., Asst. Prof., Dept. of CSE were the judges. The competition was conducted under the guidance of Dr. Venkatesh, Chairman, IIC. Dr. Sunil Kumar B.L., HOD, CSE, was the convener of the competition.

Ms.Pavithra D. S., Asst. Prof. Dept. of CSE, Mr. Rakshith M. D., Asst. Prof. Dept. of CSE; and Ms. Kavya A. M., Asst. Prof. Dept. of CSE, coordinated the event. Cash prizes were awarded to the winners.

TALK ON AN INTRODUCTION TO AUTOMATION USING UIPATH

Department of CSE organized Talk on "An Introduction to Automation using UiPath" for 5th semester students of Canara Engineering College on 21/12/2023 in AC Seminar Hall. Mr. Arpan Bangera, Programmer Analyst/Senior RPA Developer, Novigo Solutions Pvt. Ltd. was the resource person.

Topics discussed were: Advantages of Automation, Types of Automation, Types of robots, UiPath Automation solutions, Career opportunities in RPA, Demonstration of using UiPath Studio. In total, about 200 students participated in the session. Dr.Sunil Kumar B L, HOD, Dept. of CSE was present during the session. The event was coordinated by UiPath student developer champion, Mr. Sakshath Rai, 5th semester CSE. Mr. Shatananda Bhat was the faculty coordinator.