CANARA ENGINEERING COLLEGE

Benjanapadavu
Bantwal Taluk Mangaluru
Karnataka, INDIA

DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

HIGHLIGHTS

- **Staff Achievements**

- **Student Achievements**

- **Industry Institute Partnership Cell (IIPC) Activities**

- **Alumni Interaction**

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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

Ashwin Prabhu

Adithya Pai

Anjana Shenoy

Udith Bekal

Panchami Prabhu

Paramashiva Karanth

Vignesh Kundar

Disha Shenoy

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 adapt to the changing technologies, tools and societal requirements.

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

- 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

Mr. Rakshith M D

Mrs. Saritha M

STAFF ACHIEVEMENTS

ONLINE COURSE

Mrs. Aruna Kumari G K has successfully completed NPTEL Course on Database Management System during Aug-Oct 2022, organized by IIT Kharagpur.

Mrs. Verdine Noronha has successfully completed NPTEL Course on Computer Architecture and Organization during Jul-Oct 2022 , organized by IIT Kharagpur.

Mrs. Sukshama Shetty has successfully completed NPTEL Course on Database Management System during Aug-Oct 2022 , organized by IIT Kharagpur.

WORKSHOP ATTENDED

Vinod Kumar B has participated in the 3-day FDP on 'Modern Tool For Academic Documentation' organized by Canara Engineering College from 01/09/22 to 03/09/22.

Sushma has participated in the 3-day FDP on 'Modern Tool For Academic Documentation' organized by Canara Engineering College from 01/09/22 to 03/09/22.

PAPER PUBLISHED IN JOURNALS

Mr. Rakshith M D has published a paper entitled "Facial Emotion Recognition using Three-Layer ConvNet with Diversity in Data and Minimum Epochs" in the International Journal of Intelligent Systems and Applications in Engineering, Volume-10, Issue-4, pp.264-268, December 2022.

Dr. Demian Antony D'Mello has published a paper entitled "Finite State Transducer based Light-weight Cryptosystem for Data Confidentiality in Cloud Computing" in the International Journal of Grid and Utility Computing, Volume-13, Issue-6, pp.577-588, January 2023.

STUDENT ACHIEVEMENTS

Ms. Ashwini Pai of 7th semester won **first prize** in the **VTU Kabbadi Inter Collegiate Competition** held at **Government Engineering College, Kushalnagar** from 28/11/2022 to 29/11/2022. And also won **first prize** in the **VTU Kabbadi Inter Zone Competition** held at **APS College of Engineering, Bangalore** from 02/12/2022 to 03/12/2022.

Mr. Elvin D'souza of 7th semester won the **runners-up** prize at the **20-hour HackNight event** held at the **Sahyadri College of Engineering and Management** open source community on 19/11/2022. He also received crypto currency as the prize money.

Ms. Ainisha Rodrigues and Ms. Amrutha A Shanbag of 7th semester won **first prize** in the **Volleyball Inter Collegiate Competition** held at **PES, Mandya** on 24/11/2022.

- Ms. Sunidhi G Pai of 5th semester has secured **First Place** in the event **Skribbl** conducted by **Geek Club** on 19/11/2022.

- Mr.Aditya Pai B of 7th semester has completed the **Google Cloud Digital Leader Certification** and passed the **Microsoft Azure A-900 exam** during the month of December 2022.

- Ms. Chinmaya K of 5th semester has secured **First Place** in the event **CEC Replay** conducted by **Maps Club** on 16/12/2022.

- Mr. Darshan Shetty and Ishan Pawar of 5th semester has participated in the **Android Development workshop** conducted by **Techfest**, **IIT Bombay** from 16/12/2022 to 18/12/2022.

- Mr. Behzad Farooq of 5th semester has participated in the **Website Development workshop** conducted by **Techfest, IIT Bombay** from 16/12/2022 to 18/12/2022.

- Mr.Aditya Pai B of 7th semester has completed the **Google Cloud Digital Leader Certification** and passed the **Microsoft Azure A-900** exam during the month of December 2022.

- Ms. Himani Shridhar Naik and Ms. Khushi Kiran Shet of 3rd semester has secured **First Place** in the event **Treasure Hunt** conducted by **Adventure & Gravel Club** on 07/01/2023.

INDUSTRY INSTITUTE PARTNERSHIP CELL (IIPC) ACTIVITIES

Workshop on Understanding Analytics and Role of ML using Microservices

IIPC and Institution's Innovation Council (IIC) of Canara Engineering College in association with Unicourt India(Mangalore Infotech Pvt. Ltd) organised a workshop on "Understanding analytics and Role of ML using Microservices" on 22nd August 2022. 19 students of Computer Science and Engineering were part of the workshop.

Resource Persons

Mr. John Fernandes
Manager
Unicourt India

Mr. Jovel Cardoso
Sr. Software Engineer
Unicourt India

Mr. Akshay Karapurkar
Associate Tech Lead
Unicourt India

Mr. Jaison Castelino
Sr. Software Engineer
Unicourt India

Mr. Shreesh Kulkarni
Software Engineer
Unicourt India

Workshop on Understanding Analytics and Role of ML using Microservices - II

IIPC and Institution's Innovation Council (IIC) of Canara Engineering College in association with Unicourt India (Mangalore Infotech Pvt. Ltd) organised a workshop on "Understanding analytics and Role of ML using Microservices" on 26th September 2022. 23 students of Computer Science and Engineering were part of the workshop.

Resource Persons

Mr. John Fernandes
Manager
Unicourt India

Mr. Akshay Karapurkar
Associate Tech Lead
Unicourt India

Mr. Jovel Cardoso
Sr. Software Engineer
Unicourt India

Mr. Jaison Castelino
Sr. Software Engineer
Unicourt India

Mr. Shreesh Kulkarni
Software Engineer
Unicourt India

ALUMNI INTERACTION

Hands-on Training on Full Stack Web Development

A One day Hands-on training on Full Stack Web Development was arranged for the students of 5th semester on 12th November 2022 at CAD Lab. Alumni of 2021-22 batch Mr. Vipin Rao, Software Engineer, Mangalore Infotech Solutions addressed the students about technologies like HTML, CSS and Java script for the front-end development. He also demonstrated about creating the form with get and post methods for responsive web design. Mr. Rakshith M D coordinated the event. About 55 students participated in the event.

Branch Entry Programme

Computer Science and Engineering Branch Entry programme was arranged on the 25th November, 2022. The enthusiastic bunch of final and pre-final year students headed by Aditya, Praneeth, Vignesh kamath, Rithika, Udith, Karthik, Vaishnavi and team conducted the event. Dr. Demian Antony D'Mello, Professor and Dean Academics, welcomed the second- year students to the Department of Computer Science and Engineering branch and spoke about the significance of three D's (Determination, Dedication, and Discipline) in an individual's life and also the importance of investing time on practice-based learning to acquire necessary skills to be successful in professional life.

Dr. Sunil Kumar B L, Head of the Department of Computer Science and Engineering, and Prof. Verdine Noronha too welcomed the new batch and addressed them. Mr. Adithya B Pai and Mr. Karthik Prabhu shared their experience with their juniors. In reply Mr. Bilal from second year, shared his expectations from the department. The formal function came to an end with vote of thanks by Miss. Priya Nayak.

Talk on 'Personal Holistic Competence'

A talk on 'Personal Holistic Competence' was arranged for the students of 5th semester on 7th January 2023 at EC Seminar Hall. Mr.Sharad Vihari Dasa, Founder, BACCE Foundation, Mangalore was the resource person. He addressed the students about Indian Knowledge System (IKS), three domains to be focused such as Purpose, Capability and Will. Also conducted the activities among the students to make them experience importance of team work and time. About 35 students participated in the event. Mr. Rakshith M D coordinated the event.

Workshop on C programming

A workshop on 'C programming ability enhancemen' was conducted by the Department of Computer Science and Engineering from January 16th through January 18th, 2023, for 3rd semester students to enhance their technical skills through logical thinking and problem solving techniques. The resource persons were Dr. Sunil Kumar B.L., Dr. Santhosh Kumar D.K., and Mr. Nischay Hegde.