CIVIL NEXUS

VIDYA ACADEMY OF SCIENCE & TECHNOLOGY,THRISSUR

DEPARTMENT OF CIVIL ENGINEERING

2022-2023

MAY-AUG 2022

OUR VIDYA OUR PRIDE

Vision

Progress through quality education by keeping pace with new challenges in the field of Civil Engineering.

Mission

- M1: To provide an academic environment for the students for developing as capable professionals by empowering them with knowledge, skills, moral values and confidence.
- M2: To prepare the students to become global leaders of tomorrow by promoting team work practices and inculcating communication and managerial skills.
- M3: To equip the students to accept new challenges by ensuring effective teaching and learning processes; involving them in research, consultancy and development activities; and providing them with exposure to the state of the art infrastructure.

Program Educational Objectives (PEOs)

PEO-1: Our graduates will apply fundamental technical knowledge and skills to find creative solutions to technological challenges and problems in various areas of basic sciences and civil engineering and contribute to society and nation when solving engineering problems and producing reliable solutions.

PEO-2: Our graduates will contribute to the professional practice of their chosen field through effective communication, leadership, team work and service while exhibiting high ethical and professional standards in fulfilling their responsibilities to both employers and society.

PEO-3: Our graduates will continue lifelong learning through professional activities and training and take up higher education, engage in research and development in civil engineering and allied areas of science and technology.

Program Specific Outcomes (PSOs)

PSO-I: Engineering Knowledge: Achieve excellence in the areas of planning, analysis and designs related to all divisions of Civil Engineering with proper management and construction techniques.

PSO-II:Expertise in Multidisciplinary Environment Achieve effective communication skills to work in a team as a member or as a leader in diverse professional environments.

PSO-III:Responsibility: Achieve eminence in finding solutions to complex Civil Engineering problems through self-learning and research within certain realistic constraints such as global, economic, environmental, societal, safety, and sustainability context.

Program Outcomes (POs)

Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and Civil Engineering to the solution of complex engineering problems.

2. 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.

3. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

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 modeling 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.

STUDENT ACTIVITIES

'AU REVOIR' – M.Tech students bid farewell to their seniors

A Farewell is the best means to thank seniors for the time spent together .In general, every phase of the academic life, the seniors leave their places for juniors. To express the feelings of the gratitude and affection, first year M.Tech STRUCTURAL ENGINEERING (SE) students conducted a farewell programme on 24 June 2022 for the final year M.Tech students with the title 'AU REVOIR – Until we see each other again, good bye for the present' Ms. Ameesha and Ms. Anusha (S2, M.Tech CE Dept) served as the hosts of the day. Dr C. Justine Jose (Prof. and HoD, CE Dept) inaugurated the function in the presence of tutors, faculties and students of the department. The tutors of the final year batches shared their thoughts and happy moments with their dear students. The outgoing students also shared their memories. The students have also presented attractive cultural events during the programme.

CE students enhance their realworld knowledge

To enhance the disciplined observation skills and to improve the thought process, by physically witnessing and experiencing, an industrial visit was conducted by the department of Civil Engineering. The S6 CE students attained a memorable real world experience and interactive sessions with some of the prominent people from the profession while visiting Chuvannamannu aqueduct, Kannadi aqueduct Syphon aqueduct at Koduvayur and Malampuzha dam.

Visit to Chuvannamannu, Kannadi & Syphon Aqueduct he students observed different structural changes and specifics of the aqueduct. They were also introduced to different design modification done in cross drainage works for aqueducts in practical scenarios like Bullnose modification in piers, design specification like Flux Level, purposes of Spring side walls on their visit to aqueducts.

Malampuzha Dam Visit

The dam officials explained the need and different instruments of infiltration gallery and the effect of seepage and different dam safety parameters set in place . The students were permitted to study the infiltration gallery, canal regulator and associated structures shutter system, catchment area of the dam, and photo gallery depicting the history of the dam. The participants were able to relate their theoretical knowledge with actual structures and the visit served as an appropriate mix of fun and insightful learning.

FACULTY ACHIVEMENTES

CE faculty member defends PhD thesis

Ms. Anjali P. Sasidharan (AP, CE Dept) successfully defended her PhD thesis titled 'Novel polyurethane foams loaded with nanoparticles – synthesis, characterization, and evaluation of phosphate and coliform removal efficacies' on 12 May 2022 before an expert audience in the Government Engineering College, Thrissur. The research leading to the award of the degree was carried out under the guidance Dr Meera V., Professor, Government Engineering College, Thrissur. After the successful completion of the defense, Ms. Anjali P. Sasidharan has been recommended for the award of PhD degree by the authorities of the exam board.

DEPARTMENT ACTIVITIES

One-day hands-on training on 'SketchUp' by CE Dept for Polytechnic College students

'SketchUp' is a commercial software for 3D modeling developed by Trimble and used across a wide range of industries, from product design to architecture which offers some of the best CAD tools. To explore the extents of Sketch Up Modelling, a hands on training was conducted by CE Dept for final year diploma students from various polytechnic colleges on 04 June 2022. The event started with a silent prayer followed by a welcome speech by Dr C. Justine Jose (Prof. and HoD, CE Dept). The programme was inaugurated by the Dr Saji C.B. (Principal). Mr. Renjith R. (AP, CE Dept) and Mr. Sarith (M.Tech student, CE Dept) handled the theory and practical classes on the software. As many as 49 students from four different polytechnics participated in the programme. To provide students an insight of the practical perspective and to familiarize the lab facilities, the participants were taken a visit to the labs in the CE Dept.

CE Dept involves further in Rebuild Kerala Initiative of Kerala Govt

The CE Dept of Vidya has been playing an important role with various activities connected with LSGD (Local Self-Government Department) projects as part of the Rebuild Kerala Initiative (RKI). The activities include quality monitoring tests of roads in Wayanad District, Total Station survey of Toyakkavu-Venkitangu Road, Paris Road in Kandanassery, Athirappally Road, Thandilam-Manali Road, Punnayurkulam Road, Chittanda–Padinjattumuri Road, Kuranchery Road, ThaliViruttanam Road, Aloor Road and Mathilakam Road. These activities were well appreciated and the Govt of Kerala gave sanction to the Dept to serve as the second tier in the quality control mechanism. As per the request from Athirapally LSGD division, the second tier quality inspection of the Wet Mix Macadam (WMM) work of Ex-servicemen Road was carried out by three faculty members. Dr Abhilasha P.S. (Prof, CE Dept), Mr. Kiran Babu A.R. (Asst Prof, CE Dept) and Mr. Renjith R. (Asst Prof, CE Dept). The faculty members visited the site and conducted the field test to investigate the quality of WMM work.

CE Dept conducts a session on 'Coohem Software'

With an aim to equip our students with right talents to face the industry requirements, CE Dept conducted a session on 'Coohem Software' on 24 June 2022.

Coohem Software

'Coohem' is a fully featured augmented reality software designed to serve enterprises, small and medium-sized enterprises and startups. Coohem provides end to end solutions which is designed for web app and Android. This online augmented reality, integration for sales / marketing and drag and

drop at one place. The software is helpful for engineers as well as artists. It is proved to be the best aid for architecture, engineering, creative design and IT field.

The session

The introductory session was handled by Mr. Akhil and Ms. Laya (faculty members, DEH (Designers and Engineers Hub). The session created an urge of enthusiasm for knowledge among the students of S6 CE students. Obtaining CAD output by 3D modelling which is considered as the main feature of software was also discussed.

CE Dept conducts an awareness session on 'After B Tech (CE) : What Is Next'

The Civil Engineering department of VAST organized an awareness section on the topic 'After B Tech (CE) : What Is Next' for S6 B. Tech and S2 M.Tech students of CE department on 06 July 2022. The session was handled by Delta 4 Group Training and Consultancy. They explained about the various opportunities in Civil Engineering sector after the B.Tech. The event was successfully co-ordinated by S6 B.Tech and S2 M.Tech tutors, Mr. Renjith R. (Asst Prof.), Mrs. Ardra P. Nair (Asst Prof.), Ms. Nisha Varghese (Asst Prof.), Dr. Anjali P. Sasidharan (Asst Prof.) and Mr. Kiran Babu A.R. (Asst Prof.) of CE department.

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Progress Through Education

DEPARTMENT OF CIVIL ENGINEERING