



CIVIL NEXUS

VIDYA ACADEMY OF SCIENCE & TECHNOLOGY, THRISSUR
DEPARTMENT OF CIVIL ENGINEERING

2023-2024

JAN-APR 2023



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.

ACADEMIC ACTIVITIES

STUDENT ACTIVITIES

CE student secures second place in Archery in State level Keralotsavam



Vidya students recognize and sharpen their potential in sports and follow their chosen field with determination. Sreejith S. (S5, CE Dept) participated in State level Keralotsavam 2022 held at Kollam on 30 December 2022 and secured second prize in Archery Indian Round 30m and 50m team Keralotsavam is the national Youth Festival of Kerala. It is coordinated by Kerala State Youth Welfare Board. The event is organised by the Government of Kerala.

CE Dept conducts site visit



Vidya provides a valuable opportunity to the students to get involved in knowledge sharing and to think and work on recent developments in construction field. Civil Engineering Department along with 6 faculty members visited two sites namely Navera Signature which was located at Viyyur and Sapthavarma commercial building at Punkunnam on 19 December 2022. As many as 40 students attended the site visit. The visit was co-ordinated by Dr C. Justine Jose (Prof. & HoD, CE Dept) with the whole - hearted support of faculty members. The students got the opportunity to witness the detailed analysis, study of reinforcement details, plan of column, beam, shear wall and slab etc at Navera Signature. Different kinds of retaining walls such as column retaining walls and cantilever retaining walls were closely observed and explained at the second site, Sapthavarma Commercial Building. All students experienced new concepts based on civil standards and were excited for such visits.



CE students augment their technical skills to real working environments



The Dept of CE always provides the students with a chance to meet industry professionals, and entrepreneurs who share their wisdom, learning, and experiences. To make a better understanding about the current and future scenario of the construction field, an Industrial Visit was arranged to S5 CE batch students during 18-20 December 2022. As per the curriculum for B.Tech Civil Engineering for the courses Design of Hydraulic Structures and Design of Concrete Structures, the students have to learn about the construction practices, minor irrigation and major irrigation structures. On this ground, with prior permission from authorities, a visit was made to the Pattissery Dam site, Kanthalloor, Idukki. The Pattissery dam – a composite, gravity dam (concrete, rock fill dam) for irrigation was in the final stages of construction. The technical specification of the dam that include v shape basin, Canal sluice with two spill ways, its height (140m long, 33 m height (major dam) etc were well explained for the students by Mr. Issac P. George (Assistant Engineer). The students were accompanied by the faculty members Ms. Seetha Pisharikkel (Asst Prof, CE Dept) and Ms. Vandana V. (Asst Prof, CE Dept) for their educational tour thereafter which concluded on 20 December 2022. The Industrial Visit helped the budding engineers to acquire a better understanding of recent industry trends in the regular curriculum.

CE students enhance their interpersonal skills during Industrial Visit



To bridge the gap between theoretical and practical knowledge, an Industrial Visit was conducted at Banasura Sagar Dam, Wayanad to S5 CE A batch students on 18 December 2022. As mentioned in the curriculum for B.Tech Civil Engineering for the Courses design of hydraulic structures and design of concrete structures students have to learn about the construction practices, minor irrigation and major irrigation structures. Banasura Sagar Dam, the largest earth and dam in India and second largest in Asia, is located, in Wayanad district in western ghats. The major objective of this project were well explained by the officials that includes Kakkayam hydroelectric power project and irrigation purpose etc Ms. Amrutha Krishnankutty (Asst Prof, CE Dept) and Ms. Fandra Rose (Asst Prof, CE Dept) led the visit.

CE Students attend ‘Campus to Corporate Readiness Workshop’



Vidya always aims at working on students attitude and assist them to build the right attitude required. In order to equip the students with the corporate world and expose them to global career opportunities, an invited talk

final year and pre final CE students on 10 February 2023. The program started with a welcome address by Ananya (S8, CE Dept). He gave an overview of the session. Mr. Praveen Chirayath (Corporate Trainer, The Next Level Finishing school) served as the resource person who resolved the personal development stages through detailed interaction and question answer sessions. Sreeranjini (S6, CE Dept) proposed vote of

thanks. The workshop served as an ideal platform to build confidence, create self-esteem, and to bring positive changes in the attitude & behavior of the participants. Ms. Vandana V. (Asst Prof, CE Dept) co-ordinated the session under the guidance of Dr C. Justine Jose (HoD, CE Dept).

CE student succeeds in entering quarter finals in a national level 'Wipro Earthian Sustainability Quiz' Competition



With an aim to raise students' awareness, understanding and enthusiasm towards sustainability, a national level quiz competition was conducted by WIPRO known as Wipro Earthian Sustainability Quiz -Edition 8. Vidya student, Amalkrishna K.J. (S6 CE Dept) participated and made it to the top 31 students of

India by participating in the Quarter Finals Round conducted in the month of January 2023. He reached the Quarter finals by qualifying the rounds Prelims 1, Prelims 2 and Pre-quarter finals. The Wipro earthian Sustainability Quiz for colleges was launched in 2015. This is the only college quiz in the country dedicated to sustainability. The quiz questions were curated from a wide range of topics under the broad umbrella of Sustainability including Renewable Energy Sources, Solid Waste Management, Urban mobility, Green Tech, Green Building and Architecture, Water Management, latest trends in Sustainability, etc. The Quiz witnessed the unprecedented participation from many of the top colleges in India, including, IITs, IIMs, NITs, and BITS.

FACULTY DEVELOPMENT PROGRAMS

CE faculty members attend FDP on 'Sustainable Solutions to Environmental Water Quality Issues'



Mr Kiran Babu



Ms Anu Maria

Vidya faculty members try to access to the educational materials in different areas and thereby creating a learning culture. To keep up with the rapid pace of change, Mr. Kiran Babu A.R. (Asst Prof, CE Dept) and Ms. Anu Maria (Asst Prof, CE Dept) attended a three day offline Faculty Development Program on 'Sustainable Solutions to Environmental Water Quality Issues' sponsored by APJ Abdul Kalam Technological University during 19 – 21 January 2023. The sessions that include, Iron degradation in distribution system, Application of Nanotechnology in Water Resource Engineering, Application of Remote Sensing and GIT in Ground Water Management Studies, Conservation and management of Wet Land, Geotechnical Characterization and Environmental Effects of Water Quality, Effects of Geo environmental Issues on Water Quality, Water Quality Issues in Distribution Systems due to Operational Failures were handled by eminent resource persons in the respective field.

DEPARTMENT ACTIVITIES

CE Dept conducts workshop on Concrete Mix Design, Quality Control & Introduction to Sketchup



With an objective to educate about the major aspects of concrete mix design and the quality control measures of concrete production, the Dept of CE conducted a one day workshop for diploma students on 25 February 2023. Dr C. Justine Jose (Prof. & HoD, CE Dept) delivered the welcome address, in which he clearly mentioned the highlights of CE Dept as well as the placement opportunities in the Civil field. Dr Saji C.B. (Principal) in his presidential address portrayed the significance of Civil Engineering field, site experience etc. Inaugural function was ended with the vote of thanks by Ms. Roshni Vijay (Asst Prof, CE Dept).

After the inaugural session, technical talks were conducted. The program was focused to offer a practical experience in Concrete mix design and fundamentals of Sketch Up software to diploma students. Technical session began with the workshop on introduction to Sketchup software. Mr. Renjith R. (Asst Prof, CE Dept) and Mr. Sarith Narayanan

(M.Tech scholar, VAST) served as the resource persons for the session. The second session was handled by Ms. Nirmala Krishnan, (Asst Prof, CE Dept) and the talk was on the topic 'Concrete Mix Design and Quality Control'. One practical session on concrete mix design was also conducted at the Material testing laboratory, directed by Mr. Renjith R. (Asst Prof, CE Dept) with the support of M.Tech scholars. The certificates will be distributed to the students directly through their college. The feedbacks were collected from the students and from their mindful of their responses it was evident that this thought-provoking session served quite beneficial to the participants.



Winners of online PhotographyContest 'Problems we Solve'



With an aim to recognize extra talents of school students other than academics and motivate them to shine in their passion in the civil engineering, the Dept of CE conducted an online event Photography contest titled 'Problems we Solve' The registration was open to High school and Higher secondary section school students

of the district. The participants were asked to upload the photographs of the identified civil engineering problem in their locality followed by a brief description stating the causes of the issue and the possible/specific remedial measures. The problem domains such as water pollution, Road failures, Coastal erosion were reflected as photographs by contestants. Cash prize of Rs 1000/-, Rs 750/- and Rs 500/- were bagged by first, second and third prize winners

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