CHRIST
COLLEGE OF ENGINEERING
Irinjalakuda

DEPARTMENT OF CIVIL ENGINEERING

Civil-O-Peedika

A CIVIL ENGINEER' S MONOLOGUE - JULY 2022

VOLUME : 03 , ISSUE :09

Department of Civil Engineering

VISION

To be a recognized centre for moulding technically competent and socially committed Civil Engineering professionals through quality education and practical training.

MISSION

To impart quality education in Civil Engineering by integrating theory and practice, keeping pace with emerging technologies.

To encourage students to take up innovative research projects that can benefit the society.

To mould competent professionals upholding sustainable practices, ethical values, leadership qualities and lifelong learning capabilities.

Programme Educational Objectives (PEOs)

Graduates will be able to:

Apply engineering knowledge to execute infrastructure projects in compliance with codes of practice.

Employ software packages to plan, analyze, design and schedule various Civil Engineering projects.

Comprehend societal needs for sustainable development and attain optimal solutions ethically through team work, research and lifelong learning.

Programme Specific Outcomes (PSOs)

Graduates will be able to:

Apply technical knowledge and skills to develop sustainable solutions in the Civil Engineering domain.

Manage Civil Engineering projects ethically to optimise cost, time, quality and safety.

Use contemporary tools in the field of Civil Engineering to meet the industrial needs.

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Newesletter courtesy by the Department of Civil Engineering, Christ College of Engineering Irinjalakuda - 680615, Issue No: 9, Volume No. 3
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WEBINAR

RELEVANCE OF ENVIRONMENTAL ENGINEERING

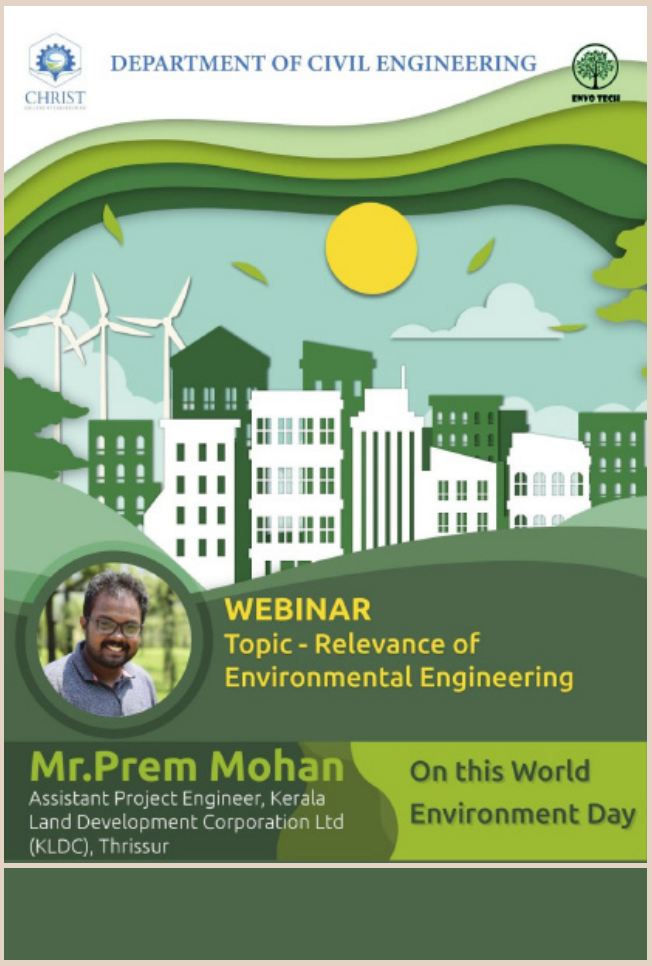
On 5th June 2022, Envotech Club, Department of Civil Engineering organized a webinar on " Relevance of Environmenta Engineering ". The speaker of the webinar was Mr.Prem Mohan, Assistant Project Engineer,Kerala Land Development Corporation Ltd (KLDC),Thrissur.

The online webinar began with the prayer, presented by Dona(S2).Elna Babu(S4) welcomed the speaker and the host of the event, Ann(S2) introduced the speaker to the participants.

The speaker addressed the participants about the relevance of the environmental engineering and the significance of Environmental Engineers in Environmental Protection in this century. Several questions were asked by the participants and discussed at the end of the session.

It was well planned webinar organized through Gmeet by the assistance of faculty coordinator Assit.Prof.Vinitha Sharon and student coordinator Anlie Mariya Jaison. More than 90 participants were there including faculty members and students of our college. At the end of the talk, the speaker was honoured with a e-momento, which was much appreciated by the speaker.

The webinar was concluded with vote of thanks by Merlin Paul(S4) and participants were provided with e-certificates after filling the feedback form.



INDUSTRIAL VISIT

An Industrial Visit to the Arch Dam at Idukki was conducted exclusively for the students of S6 CE, in concurrence with their course, Design of Hydraulic Structures. The visit was held on the 10th of June, 2022, Friday, and the party consisted of 55 students, and 2 faculty chaperones Mr. Midhun M S and Ms. Vinitha Sharon. The itinerary of the journey began at 5:00 am with the party reaching the destination at around 9:00 am. After the initial entry protocols were dealt with, the students were escorted to visit the Arch Dam as well as the surrounding Cheruthoni and Kulamavu dams. The Cheruthoni dam is a concrete gravity dam, while the Kulamavu Dam is a hybrid gravity dam with the top portion in concrete and the bottom in masonry. These two saddle dams along with the Arch Dam is said to have created an artificial lake about 60 sq. kms in area. After the features regarding spillways, reservoir capacity and dimensions were shared, the students moved on to visit the Arch Dam itself. The entrance to the walkway of Idukki Dam was located at about 1.5-2 kilometers from the saddle dams, the entirety of which was traversed by feet. It was reached by about 12:00 pm. The students were introduced to the salient features of the legendary hydraulic structure in detail . Major takeaways included the structural detailing of the dam as well as the mechanisms involved behind the long-standing functionality of the structure. Apparently, majority of the load was transferred to the colossal hills, the Kuravanmala and Kurathimala, on either side of the dam that efficiently acts as the abutments of the reservoir, near which grouting has also been employed to prevent the water from creating sub-surface voids. A small fraction of the load is also transferred to the foundation of the dam, which acts by a cantilever method of action. The rest of the hydrostatic pressure is cleverly managed by the double curvature parabolic structure of the dam that holds a sheer magnitude of 5.55 km of water making it one of the largest arch dams in Asia. The structure is a fine example of manipulation of load carrying mechanism, which is carried out by the entirety of the parabolic structure made out of 460,000 m of concrete in 27 blocks held together by helical joints for optimum strength. The whole dam wall, which is curved vertically as well as laterally, consists of no spillways at all, making it to rely on the two saddle dams, the Cheruthoni and Kulamavu reservoirs to maintain the water level. However, a tunnel spillway has been claimed to be located somewhere along the upstream side of the dam, which runs several kilometers downstream through underground. Manual inspection of hydraulic systems is enabled through galleries running internally through the wall, apart from which external deflections are computed routinely every hour through non-contact laser sensors, thus ensuring peak safety. The power harnessed within the reservoir consisting of the Idukki Arch dam, Cheruthoni and Kulamavu dams along with two earthen dams located downstream is produced and managed by the Moolamattom Power House. The structure stands to be a testimony of exceptional engineering that was well ahead of its time. The students left shortly after the lecture, at about 12:30 pm, and returned back at about 1:30 pm. The visit proved to be of substantial benefit for the understanding of hydraulic structures, and the students were able to appreciate and acclaim the discipline they have chosen from a much higher perspective.

INDUSTRIAL VISIT

- Conversion of iron ore to molten iron.
- Conversion of molten iron in to steel and contious
- casting.
- Hot rolling and thermo-mechanical treatment.
- Step by step procedure in the steel manufacture was explained

52 students along with 2 faculty members went for an industrial visit on 4thJuly, 2022 to GASHA Steels Pvt. Ltd . An Engineer in-charge of production received the students at the entrance and gave a brief introduction about the factory. Safety measure equipment like helmet were provided to all students and divided in to groups. Different manufacturing processes were explained Finally the students were taken to laboratories and the strength checking using UTM was explained.The students were benefitted by the session

QUIZ COMPETITION

In the age of internet banking and FAST, spending long hours at the teller's for a mere task of opening a personal account can be cumbersome for a majority of young demographic around us. To turn this narrative around, Bank of Baroda has developed an easy solution through which anyone can open a zero balance account with just a few taps on their smartphone.

Christ College of Engineering and Tavasya had organized an awareness session led by a team of professionals from Bank of Baroda regarding the benefits and particulars of the said utility. They had also set up an enquiry help desk and customer service facility at our campus through which the students were able to open their own personal accounts within minutes. This handy and serviceable session was also accompanied by a quiz contest for which, Sharun Babu (S6 CE) emerged as the B3 Digital Champ. The second and third positions were bagged by Aadhilakshmi (S4 CE) and Adith A S (S2 CE) respectively

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