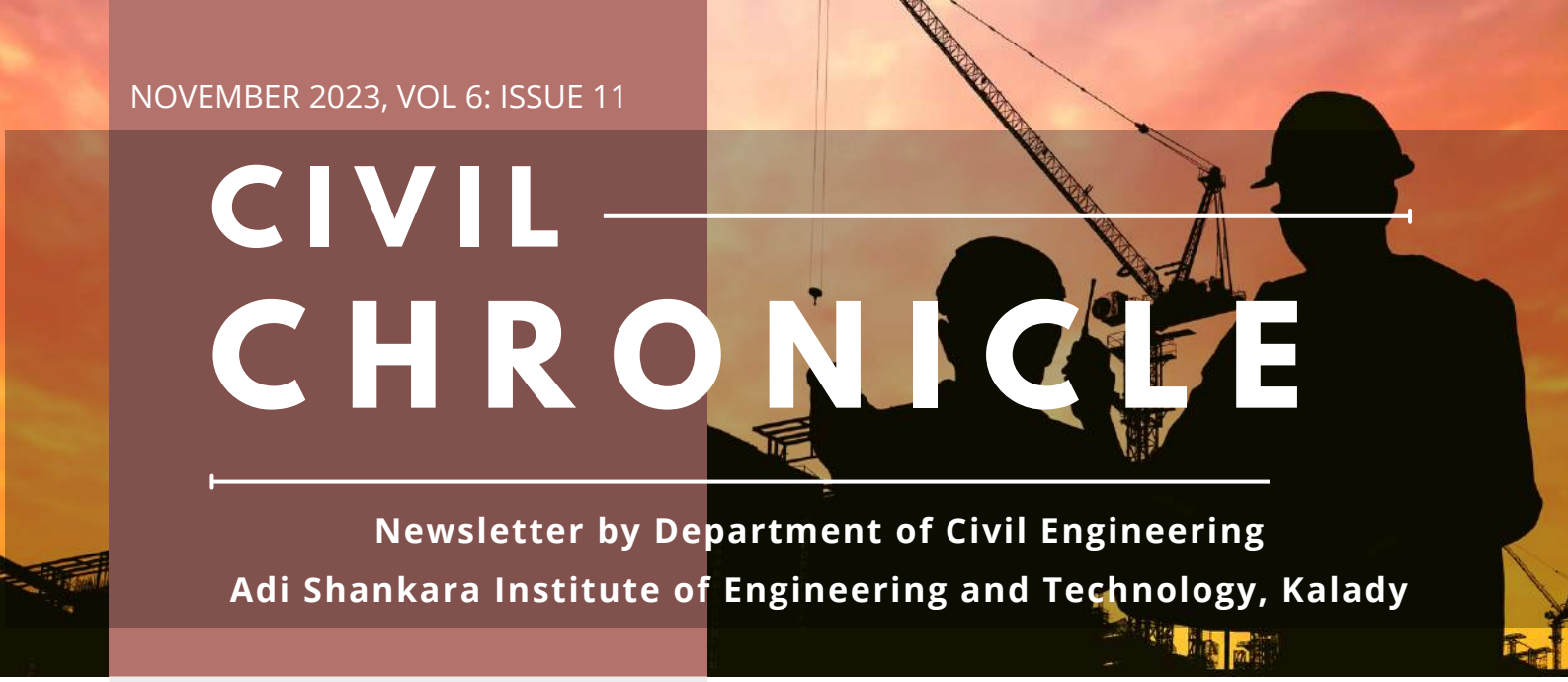
NOVEMBER 2023, VOL 6: ISSUE 11

CIVIL CHRONICLE



Newsletter by Department of Civil Engineering
Adi Shankara Institute of Engineering and Technology, Kalady

IN THIS ISSUE

DEPARTMENT VISION

TO EMERGE AS A CENTRE OF EXCELLENCE IN CIVIL ENGINEERING WITH GLOBAL PERSPECTIVES.

DEPARTMENT MISSION

- TO IMPART QUALITY PROFESSIONAL EDUCATION SO THAT THE STUDENTS EMERGE AS A COMPETENT PROFESSIONAL IN THE AREA OF CIVIL ENGINEERING.
- TO PROMOTE INNOVATIVE THINKING AND LIFELONG LEARNING IN BUDDING ENGINEERS.
- TO PRODUCE CIVIL ENGINEERS WHO HAVE IMBIBED ETHICAL VALUES TO SERVE THE SOCIETY AND NATION.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

- GRADUATES WILL HAVE A POTENTIAL TO PURSUE HIGHER STUDIES AND RESEARCH IN THE FIELD OF CIVIL ENGINEERING AND INTERDISCIPLINARY AREAS.
- GRADUATES WILL BE ABLE TO PRODUCE SUSTAINABLE SOLUTIONS WITH PROFESSIONAL ETHICS FOR REAL TIME CIVIL ENGINEERING PROBLEMS.
- GRADUATES WILL HAVE MANAGERIAL SKILLS AND LEADERSHIP QUALITIES IN EXECUTION OF CIVIL ENGINEERING PROJECTS.
- GRADUATES WILL BE ABLE TO WORK WITH INTEGRITY AND ETHICAL VALUES.

PROGRAM SPECIFIC OUTCOMES (PSOS)

AFTER SUCCESSFUL COMPLETION OF B.TECH IN CIVIL ENGINEERING, THE STUDENTS WILL BE ABLE TO:

- CHECK THE FEASIBILITY AND SUSTAINABILITY OF CIVIL ENGINEERING PROJECTS BY CONDUCTING GEOTECHNICAL INVESTIGATION, CIVIL ENGINEERING SURVEY AND ENVIRONMENTAL IMPACT ASSESSMENT.
- ANALYSE AND DESIGN BUILDINGS, HYDRAULIC STRUCTURES AND WATER DISTRIBUTION, WASTE MANAGEMENT AND TRANSPORTATION SYSTEMS.
- EXECUTE CIVIL ENGINEERING PROJECTS WITH THEIR KNOWLEDGE IN ESTIMATION, PROJECT MANAGEMENT, CONSTRUCTION MATERIALS AND TECHNOLOGIES.

WORK READINESS PROGRAM

A work readiness program was conducted for S7 students over three days, on 9th, 10th, and 13th November 2023 in association with ASAP. Students were divided into two batches and training was provided by Ms. Mary Dona and Ms Alphia Joseph.

INSTITUTE EVENTS

INDUSTRY INTERACTION

Solid CAD Institution conducted a class for final-year students, offering insights into the various aspects involved in the construction process. Additionally, they provided a VR experience for the students during the session held on November 17th 2023.

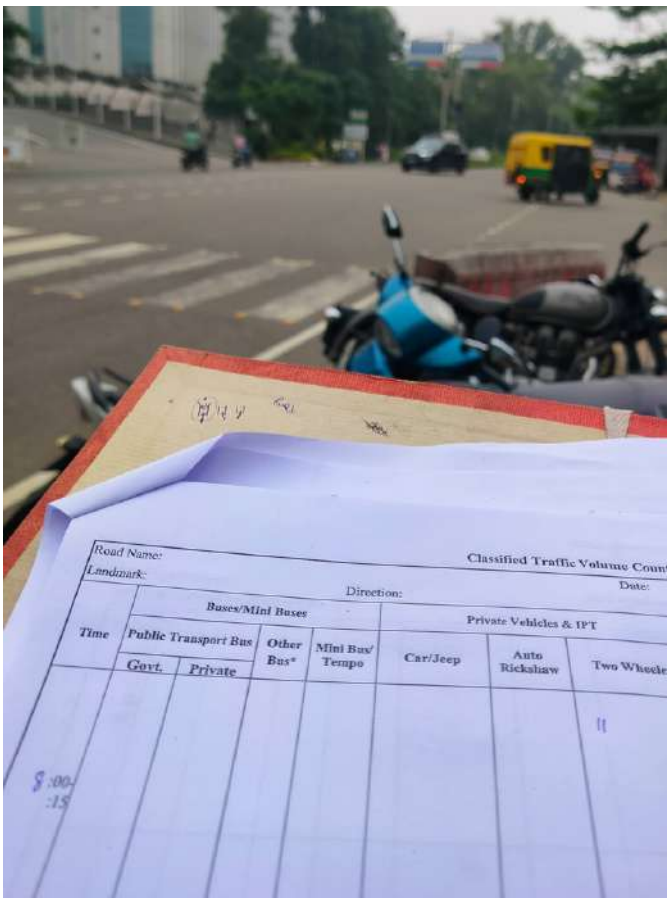
DEPARTMENT EVENTS

CIVIL ENGINEERING BEYOND BORDERS

On 4th November 2023, the department of Civil Engineering organized a seminar on "Civil Engineering Beyond Borders" in association with Edwise Overseas Education Consultants for the students.

DEPARTMENT EVENTS

TRAFFIC SURVEY



A Traffic survey was conducted by NATPAC Thiruvanthapuram from 14/11/2023 to 16/11/2023 in Infopark area, Kakkanad. Students of the department actively took part in the survey.

DEPARTMENT EVENTS

PROJECT EXHIBITION

A project exhibition was held on 24, 25 and 26th November 2023 as a part of the CBSE Kalotsav 2023 at Sarada Vidyalaya where team from the department had shown their excellence.

STUDENT ACHIEVEMENTS

PROJECT EXHIBITION

The project expo "Marian Carnival 2023" was conducted on 19th November 2023 at 'St Mary's Public School, Thamarachal'. The models from the department included 'The landslide prediction model', 'Harbour and Dock' and 'The Smart Building'. The team won "THE BEST PAVILION AWARD".

STUDENT ACHIEVEMENTS

STAFF OUTREACH

Dr. Dhanasekar K, Professor, Department of Civil Engineering, published a book titled ''Soil Mechanics'' by Taran publications.

Dr. A N Swaminathen, Professor, Department of Civil Engineering, have successfully presented the paper entitled “Accurate Crack Identification of Concrete Structures Based on Deep Bi LSTM Model” at 7th International Conference on Electronics Communication and Aerospace Technology Sustainable Artificial Intelligence Systems (IECA 2023) held from 22nd to 24th November 2023.

STAFF OUTREACH

SEISMIC RETROFITTING

The occurrence of earthquakes is known as one of the most unpredictable and destructive natural hazards in the world that brings tremendous economic losses and deaths of people. Although the control of structures to improve their performance during earthquakes began to be investigated in the prior times, the implementation of the techniques and construction practices considering the seismic loads just began after 1970. Recent earthquakes such as Pakistan earthquake (2005), Sichuan earthquake (2008), Haiti earthquake (2010) and Chile earthquake (2015) demonstrate the vulnerability of buildings structures.

FOOD FOR THOUGHT

After those devastating events, many seismic zones were upgraded by half or more degree. Consequently many buildings did not complied with new seismic code requirements and thus needed to be seismically retrofitted.

Retrofitting consists of reducing the vulnerability of damage of an existing structure during a future earthquake. It aims to strengthen a structure to comply with the requirements of the current codes for seismic design. Recently, different advanced methods for seismic retrofitting have been recorded. These range for applying different materials such as steel, concrete, fiber-reinforced, polymers, and shape memory alloys as strengthening materials used in various methods applications.It gives the advantages and disadvantages of each retrofit technique and the corresponding characteristics enhancements. Application of one technique (viscoelastic dampers) is done in a RC prototype structure and comparison on the performance of the structure with and without the retrofitting scheme is carried out. It is concluded that energy dissipation devices are very efficient improving the structure behavior.

Swathylakshmi Lal
S5 CE

FOOD FOR THOUGHT

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Ms. CLYDIN P A

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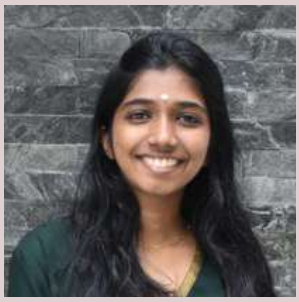

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S7 CE

Sheetal K
S7 CE

Muhammed Faiz KI
S5 CE

Swathylakshmi Lal
S5 CE

Abhishek Anilkumar
S3 CE

HOD'S MESSAGE

IN THE HIGHLY COMPETITIVE WORLD OUTSIDE, I BELIEVE IN THE VALUE OF HARD WORK, COMMITMENT AND HUMANITY. THESE VALUE ADDITIONS ARE VERY MUCH ESSENTIAL FOR THE YOUNG TECHNOCRATS, ENGINEERS AND SCIENTISTS. AS A DEPARTMENT HEAD I ENVISION MY COLLEAGUES AND STUDENTS WALKING HAND IN HAND AND BUILDING THEIR IDEAS FOR A DEVELOPED NATION.

Mr. ANEESH P C