



VIDYA ACADEMY OF SCIENCE & TECHNOLOGY TECHNICAL CAMPUS, KILIMANOOR, THIRUVANANTHAPURAM

“A Unit of Vidya International Charitable Trust”

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MONTHLY NEWS AND EVENTS

1st JUNE 2026 to 30th JUNE 2026

✚ EVENTS/TALKS/SEMINARS/CONFERENCE

- ✓ ORIENTATION PROGRAM ON INTRODUCTION TO MODERN SOFTWARE IN CIVIL ENGINEERING

VIDYA ACADEMY
OF SCIENCE & TECHNOLOGY
— TECHNICAL CAMPUS, KILIMANOOR —

CIVIL ENGINEERING DEPARTMENT
Presents
**INTRODUCTION TO
MODERN SOFTWARES
IN
CIVIL ENGINEERING**

A SPECIAL ORIENTATION PROGRAM FOR **+2 STUDENTS**

Discover the exciting world of Civil Engineering
Learn about career opportunities in Civil Engineering
Get introduced to industry-leading software tools
Interactive Sessions & Expert Guidance

EXPLORE INDUSTRY-LEADING SOFTWARES

AUTOCAD **STAAD.Pro** **REVIT** **ETABS** **CIVIL 3D**

DATE **12/06/26**
FRIDAY

TIME **10:00 AM**
TO **12:00 PM**

VENUE
Vidya Academy of Science & Technology Technical Campus,
Kilimanoor

DREAM IT.
DESIGN IT.
BUILD IT.
MAKE AN IMPACT!

EXPLORE. LEARN. BUILD. THE FUTURE!

**ALL +2 STUDENTS
Are Welcome!**

The **Department of Civil Engineering**, Vidya Academy of Science and Technology Technical Campus, Kilimanoor, organized a special orientation programme titled “**Introduction to Modern**



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Software in Civil Engineering” on **12 June 2026** from **10:00 AM to 12:00 PM**. The programme was conducted exclusively for **+2 students** to introduce them to the role of modern software tools in Civil Engineering education and practice. The session was handled by **Mr. Shiju Sasidharan**, Chief Expert in Digital Construction and Founder Director & CEO – BIMLABS Global. The event began with a welcome address by **Dr. K. Sargunan** (HOD - CE) and was coordinated by **Ms. Anjali Saji** (Asst. Prof - CE) and **Ms. Nidhu S S** (Asst. Prof - CE) with the active participation of 25 plus two students, who engaged enthusiastically in the sessions and discussions.

The programme successfully created awareness among the participants about the importance of software proficiency in Civil Engineering. Students developed a better understanding of the discipline, its career prospects, and the relevance of digital tools in solving real-world engineering challenges. The positive response and active participation reflected the programme’s effectiveness in inspiring interest in the field of Civil Engineering.





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✓ NSS UNIT CELEBRATES INTERNATIONAL YOGA DAY WITH ENTHUSIASTIC PARTICIPATION

The NSS Unit of VAST TC (Unit No. 324) successfully organized a Yoga Practice Session on **June 21, 2026**, to mark International Yoga Day, promoting the importance of health, wellness, and mindfulness among faculty members and students.

The programme was inaugurated by **Shri Shaji K. S**, Director, who delivered an inspiring address emphasizing the need to incorporate yoga into daily life to maintain physical fitness and mental well-being in today's fast-paced world. His active participation in the yoga session served as a source of motivation and encouragement for all attendees.

The yoga practice session was effectively led by **Ms. Neethu T**, Assistant Professor in the Department of Computer Science and Engineering, who explained the significance, beauty, and practical benefits of yoga. Her engaging guidance helped participants understand how yoga can contribute to a healthier and more balanced lifestyle.



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Faculty members from the Departments of Applied Science, Computer Science and Engineering, and Civil Engineering, along with NSS volunteers, actively participated in the session, making the event a vibrant and meaningful celebration.

The programme was coordinated by **Mr. Sajeer A, NSS Programme Officer**, with the support of **Ms. Sree Lakshmi M, Assistant NSS Programme Officer**, whose dedicated efforts ensured the smooth conduct of the event.

The NSS Unit expressed sincere gratitude to **Dr. Ansamma John, Principal**, for her valuable guidance, encouragement, and support in organizing the programme.

The celebration concluded successfully with enthusiastic participation from all attendees, reinforcing the importance of yoga in achieving a healthy body, calm mind, and positive outlook on life.

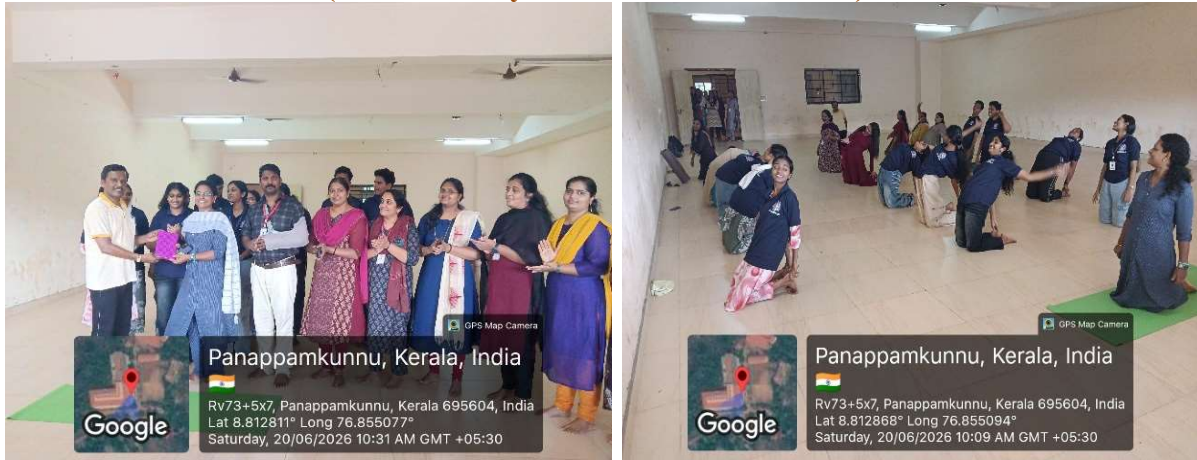




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STUDENT ACHIEVEMENTS

✓ PAPER PRESENTED AT NATIONAL CONFERENCE

- A research paper titled “Seismic Analysis on Mudavanmukal Bridge in Thiruvananthapuram Using STAAD Pro” was presented and published as part of the National Conference on Recent Trends and Innovations for the Future (RIF 2026). The study was carried out by **Ms. Nazeena Nazeer** (S8 CE), **Ms. Sneha B** (S8 CE) and **Ms. Arya Krishnan** (S8 CE) and was guided by **Ms. Nidhu S S** (Asst. Prof - Dept. of CE) from Vidya Academy of Science and Technology Technical Campus, Kilimanoor.

The findings indicated that the use of CFRP retrofitting significantly enhanced the seismic performance of the bridge by reducing structural damage and improving overall stability. The study concluded that CFRP is a reliable and effective strengthening solution for existing bridges located in earthquake-prone regions, contributing to safer and more resilient infrastructure



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National Conference on Recent Trends and Innovations for the Future - RIF 2026
Department of Civil Engineering, Noorul Islam Centre for Higher Education, Kumarakoil
Date: 17-04-2026 ISBN: 9789348505842 Volume: 02 Issue No: 01

Seismic Analysis on Mudavanmukal Bridge in Thiruvananthapuram Using STAAD. Pro

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Campus Kilimanoor, Thiruvananthapuram, Kerala, India.

Abstract

Seismic analysis plays a crucial role in ensuring the safety and stability of bridge structures subjected to earthquake forces. In this study, focuses the analysis of a bridge structure using STAAD.PRO to evaluating its behaviour under seismic loading conditions. The analysis focuses on a bridge located in Mudavanmukal, Thiruvananthapuram. The analysis includes the application of seismic loads using equivalent static and dynamic methods to assess structural responses such as displacement, bending moments, shear forces, stresses. To enhance the seismic resistance of the structure, Carbon Fiber Reinforced Polymer (CFRP) is considered as a retrofitting and strengthening technique. CFRP materials are known for their high strength to weight ratio, corrosion resistance, and ease of application. In this study, we compare the results of before using CFRP and after using CFRP. The result of the study indicates that the incorporation of CFRP effectively reduces structural damage and improves the overall seismic performance of the bridge. The study concludes that CFRP strengthening is a reliable method for improving the safety of existing bridges in earthquake prone regions.

Keywords: Carbon Fiber Reinforced Polymer (CFRP); Seismic Loading; Retrofitting

1.Introduction

Bridges are critical components of transportation infrastructure, especially in urban regions. However, in seismic zones, bridges are highly vulnerable to earthquake-induced forces, which can lead to structural damage or collapse. Seismic analysis helps in understanding the behaviour of structures under dynamic loading conditions and ensures safety and stability. this study focuses on the seismic analysis of Mudavanmukal bridge, Thiruvananthapuram. Seismic analysis helps in predicting how a structure will respond during an earthquake by considering factors such as ground acceleration, damping ratio, natural frequency, and load distribution. Modern structural analysis software like STAAD.Pro enables engineers to create accurate three-dimensional models of bridge structures and simulate real-life loading conditions. Using such tools, it becomes possible to evaluate important structural responses and identify critical regions that are more susceptible to damage. The analysis evaluates the structural response under earthquake loading conditions. Additionally, CFRP is introduced as a strengthening technique to improve the seismic resistance of the bridge. The application of CFRP in bridge engineering has proven to be highly effective in enhancing structural performance under seismic conditions. CFRP can be applied externally in the form of sheets or laminates to critical structural components such as beams, girders, columns, and piers. Seismic loads are applied to evaluate structural responses such as displacement, bending moment, and shear force. Furthermore, CFRP strengthening is applied to critical structural elements, and the results obtained before and after strengthening are compared to assess its effectiveness. The objectives of the study is to evaluate key structural responses such as displacement, bending moment,

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- A research paper titled “Removal of Iron Using Agro-Waste Adsorbents” was presented and published at the National Conference on Recent Trends and Innovations for the Future (RIF 2026). The study was conducted by **Mr. Sarath B** (S8 CE), **Mr. Nikil P. S** (S8 CE), **Mr. Sreevisakh V. A** (S8 CE) and **Mr. Akash P** (S8 CE) and was guided by **Ms. Adheena V. S** (Asst. Prof - CE) from Vidya Academy of Science and Technology Technical Campus, Kilimanoor. The research explores sustainable and low-cost methods for removing iron contamination from wastewater using agricultural waste materials.

The research demonstrates that readily available agricultural by-products can serve as efficient biosorbents for iron removal, offering an affordable and eco-friendly alternative to conventional chemical treatment methods. The study contributes to the advancement of sustainable water



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treatment technologies and encourages further exploration of agro-waste materials for environmental remediation.

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Removal of Iron Using Agro-Waste Adsorbents

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Abstract

Heavy metal contamination requires sustainable and cost-effective remediation strategies. This study investigates three unmodified agro-waste biosorbents—eggshell powder (ESP), guava leaf powder (GLP), and tamarind fruit shell (TFS)—for iron (Fe³⁺) removal. Batch experiments optimized pH, contact time, and dosage using synthetic solutions. ESP exhibited the highest maximum iron removal at 94.35%. Applying optimized parameters to real industrial effluent yielded lower removal rates: 80.15% (ESP), 76.21% (GLP), and 79.65% (TFS). This 17–23% reduction highlights limitations imposed by competitive adsorption from complex matrices. Ultimately, these biomaterials present viable, low-cost primary treatment alternatives to chemical precipitation.

Keywords: Biosorption, Iron Remediation, Agricultural Waste, Wastewater Treatment, Heavy Metal Toxicity, Competitive Adsorption, Eco-friendly Adsorbents.

1. Introduction

Industrialization has exacerbated heavy metal pollution, which is non-biodegradable, bio accumulative, and highly toxic. Conventional physicochemical treatments are prohibitively expensive and generate massive quantities of highly toxic secondary sludge. Repurposing locally abundant agricultural bio wastes provides a zero-cost remediation material while addressing solid waste management. This study investigates the iron bio sorption potential of ESP, GLP, and TFS by evaluating key operational parameters on synthetic iron solutions, and subsequently analyses their efficiency against real industrial wastewater to quantify practical viability.

2. Related Work

M.R. Islam et al. (2009) investigated the kinetic and thermodynamic behaviour of heavy metal adsorption from aqueous solutions using natural and modified bentonite clay. The study highlighted the critical importance of evaluating contact time and thermal parameters to accurately model the mechanisms of heavy metal ion uptake in standard batch adsorption processes.

S.A. Chowdhury et al. (2010) conducted extensive research on the biosorption of copper from aqueous solutions utilizing tamarind seed shells. Their findings confirmed that the dense lignocellulosic matrix characteristic of tamarind-based waste materials provides an abundance of active binding sites, validating its use as a highly effective, low-cost biosorbent for metal cations.

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STAFF ACHIEVEMENTS

✓ FACULTY MEMBER SUCCESSFULLY COMPLETES NATIONAL-LEVEL FDP ON ADVANCED MACHINE LEARNING

Ms. Beena V. R, Assistant Professor, **Department of Computer Science and Engineering**, Vidya Academy of Science and Technology Technical Campus, Kilimanoor, completed a National-Level 7-Day Online Faculty Development Programme (FDP) on “**Advanced Machine Learning Paradigms: Theory, Lab, and Research Applications**”. The programme, organized by the Department of Computer Science and Engineering at MEA Engineering College, Perinthalmanna, was held from 18 to 25 May 2026. Her certificate of participation was received on 1 June 2026.



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✓ **RESEARCH EXCELLENCE: PUBLISHES IN GLOBAL NEST JOURNAL**



Dr. Pravin Rose T, Head of the **Department of Applied Science** and **Dr. C. Brijilal Ruban**, Head of the **Department of Computer Science and Engineering**, have achieved a significant research milestone with the publication of their paper titled “**Smart Agriculture with CNN-LLOA Optimization: An IoT-Based Approach for Climate Change Adaptation and Environmental Protection**” in the reputed **Global NEST Journal**.

The research presents an innovative approach that integrates Artificial Intelligence, Internet of Things (IoT), and advanced optimization techniques to enhance sustainable agricultural practices.



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The study focuses on leveraging smart technologies to support climate change adaptation, improve environmental protection, and promote efficient agricultural management.

✓ NPTEL BELIEVER RECOGNITION

Ms. Anju M. R., Assistant Professor in the **Department of Computer Science and Engineering**, has earned the prestigious **NPTEL Believer** recognition for the **January–April 2026** semester from the NPTEL–SWAYAM programme of IIT Madras.

The NPTEL Believer title is awarded to learners who complete multiple NPTEL certification courses within a semester, demonstrating consistent dedication to learning and academic excellence. The recognition highlights sustained efforts in acquiring advanced knowledge and enhancing professional competencies through quality online education.





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SUGGESTIONS & SUPPORT

We value your suggestions for improvement. For contact or assistance on related matters, please email us at wednesdaynews@vidyatcklmr.ac.in. We will get back to you as soon as possible.

Wednesday News Team