



MOMENTS 2020

JANUARY 2020 - JUNE 2020

DEPARTMENT OF CIVIL ENGINEERING NEWSLETTER



OUR FOUNDER
Late Dr. K. C. G. Verghese
(1940 – 2016)

EXECUTIVE COMMITTEE

CONVENER

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HoD, Civil Dept.,

EXECUTIVE COMMITTEE MEMBER

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Professor, Civil Dept.,

Dr. Shalini R Nair,
Assistant Prof., Civil Dept.,

Aravinda Debbarma, 4th year B.Tech.,

Pranav Patil, 4th year B.Tech.,

Dear Students and Staff!

The Department of Civil Engineering of HINDUSTAN INSTITUTE OF TECHNOLOGY & SCIENCE, Padur is delighted to bring out this news letter for the staff and student community.

Collaboration between the institute and industry is vital for teaching and learning of any engineering program. By affirming this truth, the Department of Civil Engineering has been organizing a series of programs like International technical seminars, research symposium, talks on ongoing research activities and other related topics from distinguished experts to give our students a practical insight into Civil Engineering,

As a first step, we bring out the details of the events that were hosted in the Civil Engineering, department since January 2020 to June 2020.

We thank our Management, Vice-Chancellor, Dean, HOD, staff, and students for their sincere support and cooperation in bringing out this news letter successfully. Have a nice reading.

With regards,
Editor - Department of Civil Engineering.

ABOUT THE DEPARTMENT

The Civil Engineering Department is one of the oldest departments in Hindustan Institute of Technology & Science started in 1985. It offers one under graduate programme with three specializations and three post graduate programmes in Structural Engineering, Construction Engineering and Environmental Engineering. The department has highly qualified and well experienced faculty who are involved in research in the areas of Structural Engineering, Environmental Engineering, Transportation Engineering, Water Resources Management etc. The department has successfully completed many research projects funded by government agencies and has very close interaction with many leading industries and research laboratories in areas relating to green materials, health monitoring, construction management etc.

VISION

To be a globally competent Premier Academic Centre for quality education and research in the diverse areas of Civil Engineering with social commitment

MISSION

- M1. To inculcate comprehensive principles to produce highly competent and technologically capable professional engineers, academicians and entrepreneurs.
- M2. To impart quality education with strong emphasis on social commitment and sustainability, with ethical standards.
- M3. To provide a scholastic environment for state-of-the-art research.
- M4. To conduct Knowledge transfer programs to enhance technical knowledge.

*"Scientists investigate that which already is;
Engineers create that which has never been"*

PROGRAMME EDUCATIONAL OBJECTIVES

PEO 1: The graduates will become experts in Planning, Designing and executing any infrastructural Development project.

PEO 2: The Graduates will be able to learn and adopt new technologies evolving in the field of Civil Engineering.

PEO 3: The Graduates will become globally competent Civil Engineering Professionals.

PROGRAMME OUTCOMES

PO 1: To apply the knowledge of Mathematics, Science and Engineering fundamentals to solve complex Civil Engineering Problems.

PO 2: Graduate will attain the ability to identify, formulate, analyze and find suitable solutions for complex Engineering problems using basic principles of Science and Engineering.

PO 3: Graduates will be able to design Civil Engineering system Components and Processes considering public health, safety and Environmental issues to meet the needs of the society.

PO 4: Graduates will be able to conduct investigations of complex problems in Civil Engineering using Research based knowledge and Research.

PO 5: Graduate will exhibits skills to use modern Engineering tools, software and equipment to analyze various problems in Civil Engineering Domain.

PO 6: To practice as an efficient Civil Engineer to assess and manage the societal needs.

PO 7: Graduate will understand the impact of Engineering solutions based on the Sustainable Concepts.

PO 8: Graduate will be aware of their Professional and ethical responsibilities to the society.

PO 9: Graduate will be able to work individually or as a team member or leader in uniform and multidisciplinary settings.

PO 10: Graduate will be able to communicate effectively in both verbal and written forms.

PO 11: Graduate will have an understanding of Engineering and Management Principles and apply this to one's own work, as a member and a leader in a team, to manage projects.

PO 12: Graduate will develop confidence for self education and ability for life long learning.

PAPER PUBLICATION

1. Samuel, J., & Joanna, P. (2020). Experimental Study and Numerical Modelling on The Behaviour of Built-Up Cold-Formed Steel Beams with Diagonal Web Bars. *International Journal of Scientific & Technology Research*, 9(2), 2272-2276.
2. J. Karthick, R. Samuel Devadoss. (2020). Investigational Assessment on gaseous emissions under various Industrial process, National Conference on Recent Trends in Chemical and Environmental Biotechnology (RTCEB -2020), February 2020. Annamalai University, India.
3. Sulagno Banerjee, Jessy Rooby, Ductility of Tyre Rubber Concrete columns, *International Journal of Advanced research in Engineering and Technology*, 2020, 11(5), pp.516-528
4. Anthony Raja, M., & Preethi, V. (2020). Performance of Square and Trapezoidal photoreactors for solar hydrogen recovery from various industrial sulphide wastewater using CNT/Ce³⁺ doped TiO₂. *International Journal of Hydrogen Energy*, 45(13), 7616-7626. doi: 10.1016/j.ijhydene.2019.09.168
5. Anthony Raja, M., & Preethi, V. (2020). Photocatalytic hydrogen production using bench-scale trapezoidal photocatalytic reactor. *International Journal of Hydrogen Energy*, 45(13), 7574-7583. doi: 10.1016/j.ijhydene.2019.08.204
6. Jayabalan, T., Matheswaran, M., Preethi, V., & Naina Mohamed, S. (2020). Enhancing biohydrogen production from sugar industry wastewater using metal oxide/graphene nanocomposite catalysts in microbial electrolysis cell. *International Journal of Hydrogen Energy*, 45(13), 7647-7655. doi: 10.1016/j.ijhydene.2019.09.068
7. C, Yoganantham, & P.S, Joanna. (2020). Effect Of High-Volume Fly Ash Concrete in Self-Curing Engineered Cementitious Composite (ECC). *International Journal of Advanced Research in Engineering and Technology (IJARET)*, 11(4), 2020, pp. 268-276. doi: 10.31224/osf.io/b53wx
8. Cruze, D., Gladston, H., Loganathan, S., Dharmaraj, T., & Solomon, S. (2020). Study on Magnatec oil-based MR fluid and its damping efficiency using MR damper with various annular gap configurations. *Energy, Ecology And Environment*, 6(1), 44-54. doi: 10.1007/s40974-020-00170-6
9. Aravind Raj, P., Divahar, R., Sangeetha, S., & Joanna, P. (2020). Quasi-static cyclic load performance of encased concrete-filled steel tubular with steel loops joint using sustainable concrete. *Asian Journal Of Civil Engineering*, 21(7), 1259-1267. doi: 10.1007/s42107-020-00274-8

PAPER PUBLICATION

10. Venkatesan, H., Rose, G., Vijayarengan, P., Sivamani, S., Krishnan, J., & Thomai, M. (2020). Predicting the combustion behaviour of compression ignition engine fuelled with biodiesel from *Stoechospermum marginatum*, a macro algae. *Environmental Science And Pollution Research*, 28(45), 63464-63479. doi: 10.1007/s11356-020-10048-z
11. J. Karthick, R. Samuel Devadoss, S. Sharmila, and S. Karthikeyan, (2020) Assessment Of Meteorological Parameters For Flat Terrain Condition By Using AERMET a Pre-Processor Dispersion Model, *Research Journal of Chemistry and Environment*. 24(8): 96-107.
12. Ravi, D., Ponsubbiah, A., Prabha, S., & Saratha, J. (2020). Experimental, analytical and numerical studies on concrete encased trapezoidally web profiled cold-formed steel beams by varying depth-thickness ratio. *Frontiers Of Structural And Civil Engineering*, 14(4), 930-946. doi: 10.1007/s11709-020-0652-1
13. Sekar, S., Lee, S., Vijayarengan, P., Kalirajan, K., Santhakumar, T., Sekar, S., & Sadhasivam, S. (2020). Upcycling of Wastewater via Effective Photocatalytic Hydrogen Production Using MnO₂ Nanoparticles—Decorated Activated Carbon Nanoflakes. *Nanomaterials*, 10(8), 1610. doi: 10.3390/nano10081610



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