



# GOVERNMENT COLLEGE OF TECHNOLOGY COIMBATORE-13

## Newsletter 2021

*From the Department of  
Civil Engineering*



### EDITORIAL TEAM

#### FACULTIES:

DR. R.THENMOZHI,  
PROF & HOD.  
DR.S.CHITHRA,  
ASSISTANT PROFESSOR.

#### STUDENTS:

SABAREESH S(1911185)  
RAAJASIMMAN S(1811179)  
MOHAMED SHAKEEL R(1911149)



## From the Professor's desk

I am Happy that The Department Newsletter titled “The Builder” is releasing the first issuing the year 2020. I am very Happy to report that We, the Department of Civil Engineering, organized a number of events on a plethora of topics keeping in mind student welfare and development. I am delighted to add that The Department of Civil Engineering of Government college of technology, Coimbatore has signed a Memorandum Of understanding with man industries during this period. This Open-ups many gates for our students including increased preparedness for the Industry And internship opportunities. One such benefit is that we have attached few groups of Final year students with the industry for their project.



I appreciate the entire team for their continuous effort in bringing out this Newsletter with the faculty and students achievements. It gives me immense pleasure in seeing the cumulative presentation of various events by faculty and students.

I wish the Newsletter should carry many more useful information and faculty and students Should make use of this opportunities to express their views and to update their Knowledge.



## Vision and Mission of the Institute

### Vision :

To emerge as a centre of excellence and eminence by imparting futuristic technical education in keeping with global standards, making our students technologically competent and ethically strong so that they can readily contribute to the rapid advancement of society and mankind.

### Mission :

- To achieve Academic excellence through innovative teaching and learning practices.
- To enhance employability and entrepreneurship.
- To improve the research competence to address societal needs.
- To inculcate a culture that supports and reinforces ethical professional behavior for a harmonious prosperous society.



## Vision and Mission of the Department

### Vision :

Marching towards the centre of excellence in Engineering and Technology with sustainable development to bring out professionals with futuristic vision.

### Mission :

- To mould the students to be good planners, designers, executors and ethical Engineers
- To serve the society and strive for the development of the nation.
- To make Civil Engineering department a renowned high-tech consultancy centre for various Civil Engineering activities.
- To create a nodal centre for providing consulting services during natural calamities.
- To make this department a centre for research and development activities with field interaction.



# Research and Development



## Journal Publications :

1. B Ranjith, and Thenmozhi R., “Experimental and numerical studies on punching shear strength of concrete slabs containing sintered fly ash aggregates.” *Revista de la Construcción*, April 2021, Volume 20, No 1, 0718- 915X, pg. 15 – 25, ISSN-e 0717-7925,
2. Jayalakshmi, R., and Jeyanthi. J. , “Dynamic modelling of Alginate – Cobalt ferrite nanocomposite for removal of binary dyes from textile effluent”, *Journal of Environmental Chemical Engineering* , February 2021, Volume 9, Issue 1, 104924, Online, <https://doi.org/10.1016/j.jece.2020.104924>
3. Priya, M., Jeyanthi, J., & Thiruvengatamani, G, “Recycling of industrial waste material of fly ash cenosphere for the treatment of car wash water effluent” *Journal of Material Cycles and Waste Management*, November 2021, Vol. 24, Issue 1, pg. 321-332, <https://doi.org/10.1007/s10163-021-01324-2>.
4. Jayalakshmi, R., & Jeyanthi, J. “Spectroscopic Investigation of carbon nanotube as nano-filler entrapped in chitosan hydrogel beads” *Journal of Molecular structure*, 2021, vol. 1237, 130386, <https://doi.org/10.1016/j.mol struc.2021.130386>
5. Thyagarajan, L. P., Jeyanthi, J., & Kavitha, D. “Vulnerability analysis of the groundwater quality around Vellalore -Kurichi landfill region in Coimbatore” *Environmental Chemistry and Ecotoxicology*, Vol. 3, pg:125- 130, <https://doi.org/10.1016/j.enceco.2020.12.002>





6. Karthik, V., P. Senthil Kumar, Dai-Viet N. Vo, P. Selvakumar, M. Gokulakrishnan, P. Keerthana, V. Audilakshmi, and J. Jeyanthi., “Enzyme-loaded nanoparticles for the degradation of wastewater contaminants: a review”, 2021 Environmental Chemistry Letters 19, vol.19 Issue.3, pp. 2331-2350-2021, <https://doi.org/10.1007/s10311-020-01158-8>
7. R Bhuvaneshwari., Jeyanthi, J., & Chinnaiyan, P.“Novel organic assisted Ag-ZnO photocatalyst for atenolol and acetaminophen photocatalytic degradation under visible radiation: performance and reaction mechanism”,2021, Environmental Science and Pollution Research, Vol. 28, Issue 29, pg.:39637-39647, <https://doi.org/10.1007/s11356-021-13532-2>
8. Bhuvaneswari, R., Jeyanthi, J., & Kumar, M. “Visible light assisted degradation of Atenolol by Fe-TiO<sub>2</sub>: Synthesis, characterization, optimization and mechanism” Optik , August 2021, Volume 239, 166658, <https://doi.org/10.1016/j.ijleo.2021.166658>
9. Priya, M., J. Jeyanthi, and G. Thiruvengatamani. “Recycling of industrial waste material of fly ash cenosphere for the treatment of car wash water effluent.” Journal of Material Cycles and Waste Management, Vol. 24, Issue no. 1, pg.: 321-332, <https://doi.org/10.1007/s10163-021-01324-2>
10. Sumathi, S., & Meiaraj, C. “Lipid Study from Oleaginous Yeast Using Sugarcane Bagasse Substrate”, Journal of Environmental Protection and Ecology, 2021, Vol. 22, Issue 3, pg. 1064–1071
11. Vasaki, M., S. Murugan., Ravindran, G., Paramasivan, B., Ekambaram, G., & K arri, R. R. (2022). Biodiesel production from lignocellulosic biomass using *Yarrowia lipolytica*. “Biodiesel production from lignocellulosic biomass using *Yarrowialipolytica*”, Energy Conversion and Management: X 13, 100167, Vol. 13, <https://doi.org/10.1016/j.ecmx.2021.100167>

12. Padmanabhan, G., Shanmugam, G. K., & Sathyapriya S., “Shaking Table Tests on Liquefiable Sand Deposits Treated with Sand Compaction Piles”, 2021, LNCE Proceedings of the Indian Geotechnical Conference 2019 , vol 138 , pg. 523-532, [https://doi.org/10.1007/978-981-33-6564-3\\_44](https://doi.org/10.1007/978-981-33-6564-3_44).
13. Padmanabhan, G., Shanmugam, G. K., & Sathyapriya S., “Sustainability approaches in ground improvement measures”, Sustainable practices and innovations in civil engineering, vol. 79, pg.249-255, [https://doi.org/10.1007/978-981-15-5101-7\\_25](https://doi.org/10.1007/978-981-15-5101-7_25)
14. N.Senthil kumar, S. Makesh kumar, S.Chithra, “Finite Element Analysis of beam with Self Compacting Concrete” International Research Journal of Engineering and Technology, Feb 2021. Volume 08 Issue 03, eISSN:2395-0056
15. A.Oorkalan, S.Chithra, “Investigation on the Properties of Sustainable Steel Fiber Reinforced Reactive Powder Concrete by Utilization of Coir Pith Aggregates and Pyrogenic Silica”, August 2021, Silicon, Vol. 14, Issue 10, Pg 5545–5562, <https://doi.org/10.1007/s12633-021-01266-2>
16. Mahakavi, P., Chithra, R., Gogoi, R., & Divyah, N, “Effect of recycled aggregate and flyash on glass fiber reinforced concrete”, 2021, Materials Today: Proceedings, Vol. 47, pg. 7105-7110. <https://doi.org/10.1016/j.matpr.2021.06.222>,
17. Mahakavi, P., and R. Chithra. “Effect of RCA, foundry sand on strength and toughness of fibre reinforced self-compacting concrete.” Materials Today: Proceedings, vol. 47, 2021, pg.: 6976-6981. <https://doi.org/10.1016/j.matpr.2021.05.253>,
18. Mahakavi, P., & Chithra, R. “Effect of RCA, foundry sand on strength and toughness of fibre reinforced self-compacting concrete” Materials Today: Proceedings, 2021, Volume 47, Pages 6976 – 6981, <https://doi.org/10.1016/j.matpr.2021.05.253>



19. Kumar, P. S. and G. Dhamodhara Kannan, "Effect of Self-compacting Concrete infill on the flexural behaviour of hollow channel sections: Experimental and numerical studies" *Structural Concrete*, 2021-vol. 22, no.3, pp. 1720 – 1740. <https://doi.org/10.1002/suco.202000173>

20. Kumar, P. S., and G. Dhamodhara Kannan. "Optimization of CFS sections under flexure using Genetic Algorithm." *Informes de la Construcción*, Vol.73, Issue no. 563 2021, pg. e399

21. Devi PK, Vetri selvi P, Rama M, "Strengthening of the beam column joint using mixed fibers Literature review", *International Research Journal of Engineering and Technology*, 2021- ISSN 2395-0072, Volume 08, Number 12, pp: 178 to 183.

22. Kalesh kahan, Rama M, Srinithi S, Vasanth D, "A Review on Assessment of Thermal Comfort Conditions" *GIS Science Journal*, 2021-ISSN: 1869-9391, Volume 9, Issue 3,, pp: 913 to 920.

23. Reneshragul K, Rama M, Arun Balaso B, Arun Pandiyan, Kalesh Khan A, "A Review on Lighting System and Aesthetics" *International Journal of All Research Education and Scientific Methods*, 2021-ISSN: 2455-6211, Volume 10, Issue 3, pp: 2320 to 2329.

24. Kumar, M., Gokulan, R., Sujatha, S., Shanmuga Priya, S. P., Praveen, S., & Elayaraja, S. (2021). "Biodecolorization of Reactive Red 120 in batch and packed bed column using biochar derived from *Ulva reticulata*", *Biomass Conversion and Biorefinery*, January 2021, pg. 1-15, <https://doi.org/10.1007/s13399-020-01268-x>







25. Kumar, M., S. Sujatha, R. Gokulan, A. Vijayakumar, S. Praveen, and S. Elayaraja. "Prediction of RSM and ANN in the decolorization of Reactive Orange 16 using biochar derived from *Ulva lactuca*." *Desalination and Water Treatment*, January 2021, vol. 211, pg. 304-318. <https://doi.org/10.5004/dwt.2021.26615>

26. Kumar, M., V. Krishnaveni, and Surya Muthukumar. "Geotechnical investigation and numerical analysis of slope failure: a case study of landslide vulnerability zone in Kolli Hills, Tamil Nadu." *Journal of the Geological Society of India*, Vol. 97, Issue no. 5, pg. 513-519. <https://doi.org/10.1007/s12594-021-1717-z>

## PhD Completed



- Miss.M.Divyah completed her PhD on the title "Behaviour of steel concrete composite columns made of sintered light weight aggregate concrete" under the guidance of Dr.R.Thenmozhi.
- Miss.B.Shoba completed her PhD on the title "Treatability Studies Of Oily Wastewater Using Cellulose Acetate Membrane Modified By Carbon Based Additives." under the guidance of Dr.J.Jeyanthi.
- Miss.M.Priya completed her PhD on the title "Performance Analysis Of Electrocoagulation With Cenosphere For The Treatment Of Automobile Wash Water Effluent" under the guidance of Dr.J.Jeyanthi.
- Mr.S.Praburanganathan completed his PhD on the title "Study On Properties Of Flyash Bricks With Partial Replacement Of Waste Materials And Structural Performance Of Masonry Walls" under the guidance of Dr.J.Jeyanthi.



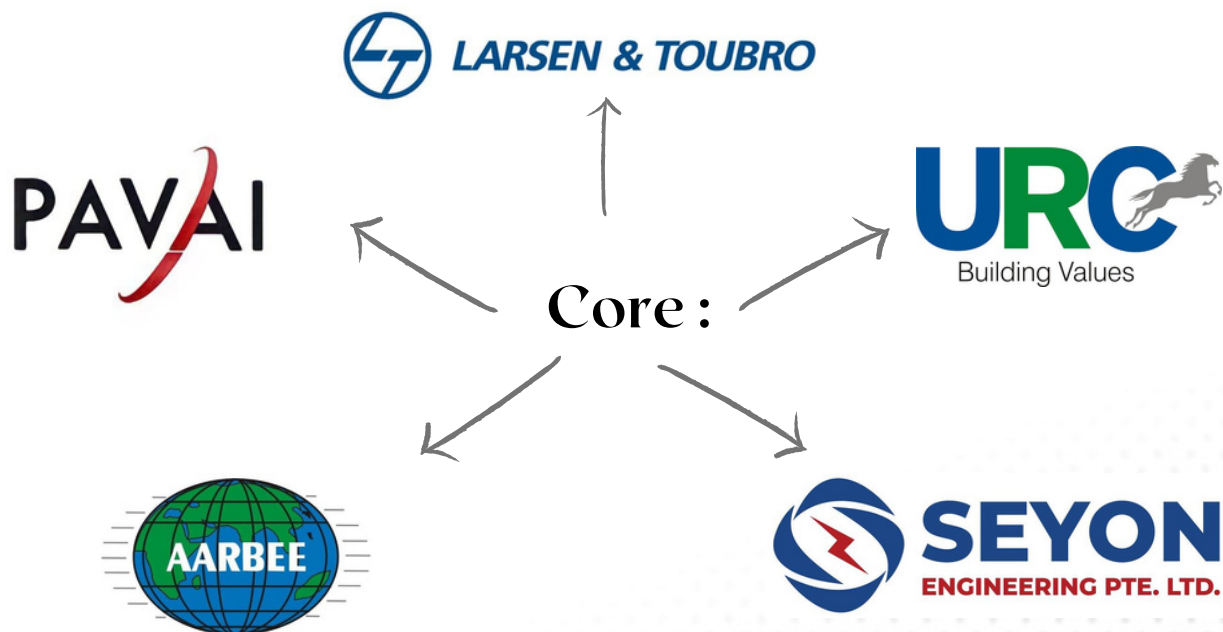
## Awards / Recognitions Received

Dr. P. Mahakavi and Dr. R. Chithra received R W Chapman Medal 2019 from the Board of the Structural College, Engineers Australia for the paper “Effect of recycled coarse aggregate and manufactured sand in self compacting concrete”, published in an Australian Journal (Australian Journal of Structural Engineering)

## NPTEL Courses

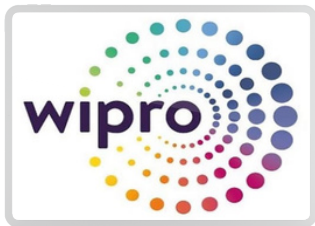
1. Dr. M. Rama completed NPTEL course on Building Construction Materials, Introduction to Lean Construction, Concrete Technology, Modern Construction Materials and Strategies for Sustainable Design.

## Placements





**IT Sector :**



**Core :**

**AQUAGREEN ENGINEERING  
Management Pvt.Ltd :4 Students**



**Content Creation :**

**Byjus :1 Student**



# Programmes Organized



1. Career Guidance on “L& T Build India Scholarship” for Civil Engineering students held on 21.02.2021.

2. TEQIP III sponsored (Women Empowerment Cell) webinar on “Women Empowerment through Legal Protection”, held on 22nd February, 2021

3. Employability Skill training for the third year full time B.E. Civil (2018 Batch) held from 04.03.2021 to 07.03.2021.

4. TEQIP III sponsored Industry oriented webinar on “Overcoming Stress with Positive Attitude” for Civil Engineering students held on 06.03.2021.

5. TEQIP III sponsored Industry oriented webinar on “Civil Engineering Opportunities and Challenges” for Civil Engineering students held on 06.03.2021.

6. TEQIP III sponsored webinar on “Good Construction Practices”, held on 6th March, 2021.

7. TEQIP III sponsored webinar on “Overcoming Stress with Positive Attitude & Civil Engineering Opportunities & Challenges”, held on 6th March, 2021.

8. International Conference on Environment-Friendly Construction Materials, Methods and Systems (EFCMS'21) on 11.03.2021 & 12.03.2021





9. Industry oriented webinar on “Opportunities in Remote Sensing and GIS for Civil Engineering Students” held on 07.08.2021.

10. Study Opportunities for Civil Engineers at International Universities by CAREER ZONE through online mode held on 19.08.2021

11. webinar on “Novelty in Research Projects” under Student Research Foundation (SRF), held on 24.08.2021

12. Webinar on Importance of Design for Civil Engineers by DCAD Engineers Consultants held on 09.09.2021

13. IRC GCT and Departmet of Civil Engineering organized webinar on “Developing Industry Ready Engineers for Oil and Gas Sector” held on 30.10.2021.

14. Conducted an event titled “ Research Astound” under Student Research Foundation (SRF) on 18.11.2021

15. Webinar on “Career Advancement in Construction, Real estate, Infra structure and Project (CRIP) Sector”, for Civil Engineering students held on 28.12.2021.

16. Dr.B.Saravankumar HoD (Structures) Ramboll conducted Online software training programme on “Analysis and Design using STAAD PRO. ETABS” from 6.9.2021 to 1.12.2021



அரசினர் தொழில்நுட்பக் கல்லூரி,  
கோவை-13

ஒருங்கிணைப்பாளர்:  
தமிழ் மற்றும் நுண்கலை மன்றம்

நிகழ்வு நடைபெற்ற களம்:  
வீறடை செம்மொழி'21

நிகழ்வின் பெயர்:  
சீர்தக்கலாம் வாங்க!

**நிகழ்வு சுருக்கம்:**  
ஜூன் 6, 2021 அன்று உலக செம்மொழி தினம் முன்னிட்டு நடத்தப்பட்ட  
வீறடை செம்மொழி'21 நிகழ்வில் நடந்த நகைச்சுவை நிகழ்ச்சியில் மாணவர்கள்  
சிறப்பாக பங்கேற்று சிரிப்புடன் துவக்கிவைத்தனர்.

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GCT TAMILMANDRAM AND FINEARTS



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**Y's Service Club of GCT YOUTH**

**WESCON 2021**

41st Conference of  
West District

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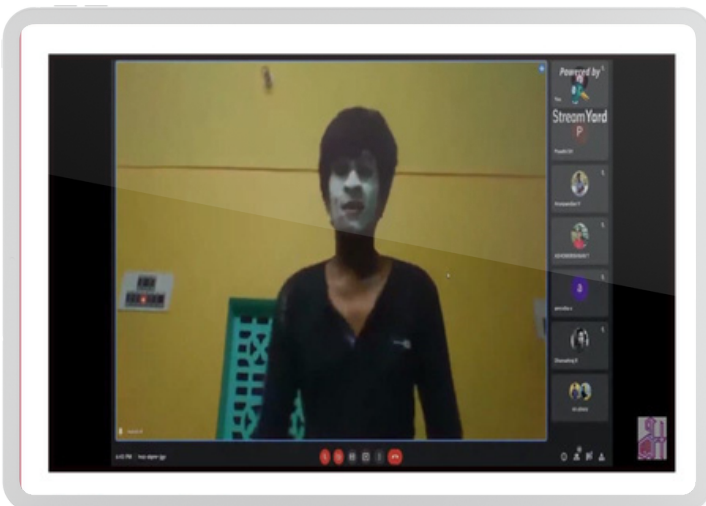
**BEST YOUTH CLUB AWARD**  
**BEST CONTRIBUTION FOR TOF FUND AWARD**  
**EXTENSION AWARD**  
**BEST INTERNAL EXTENSION AWARD**

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# Student Activities



1. Smriti L (1911197) participated in project display contest at CEG,Chennai and won 2nd prize(Rs.3000),Workshop on Precast concrete structures at CEG,Chennai and won 1st prize, Workshop on new products in sustainable construction at CEG,Chennai and won 2nd prize and Workshop on BIM, Reveal the Civil, Archi Buildo and Eco quiz at CEG,Chennai.
2. Sneha T (1911198) participated in project display contest at CEG,Chennai and won 2nd prize(Rs.3000),Workshop on Precast concrete structures at CEG,Chennai and won 1st prize, Workshop on new products in sustainable construction at CEG,Chennai and won 2nd prize and Workshop on BIM, Reveal the Civil, Archi Buildo and Eco quiz at CEG,Chennai.
3. Subhashshini M (1911201) participated in project display contest at CEG,Chennai and won 2nd prize(Rs.3000),Workshop on Precast concrete structures at CEG,Chennai and won 1st prize, Workshop on new products in sustainable construction at CEG,Chennai and won 2nd prize and Workshop on BIM, Reveal the Civil, Archi Buildo and Eco quiz at CEG,Chennai.





4. Aswin Karthick P (1911106) participated in Workshop on Precast concrete structures at CEG,Chennai.

5. Aswin Kumar A(1911107) participated in Workshop on Precast concrete structures at CEG,Chennai.

6. Jeevapriyan S (1911132) participated in Workshop on Precast concrete structures at CEG,Chennai.

7. Harishkumar S (1911122) participated in Workshop on Precast concrete structures and new products in sustainable construction at CEG,Chennai.

