National Institute of Technology Karnataka, Surathkal.
Department of Civil Engineering

Profile of Dr. T. Palanisamy



Dr. T. PALANISAMY, B.E (Civil)., M.E(Struct.)., Ph.D. (Struct.), MISTE, MICI.,
Associate Professor,

Department of Civil Engineering,

National Institute of Technology Karnataka (NITK), Surathkal,

(Institute of National Importance by the Government of India),

P.O. Srinivasnagar, Mangalore – 575 025.

Karnataka- State, India.

http://www.nitk.ac.in/s

Scopus ID: 56026363600

Web of Science ID: IAP-7906-2023

Dr. T. PALANISAMY - Google Scholar

ORCiD- 0000-0002-8921-6849

E – mail tpalanisamycivil@nitk.edu.in, Mobile: +91 9994862226 ,

Office: 08242473366, Mail Id: tpalanisamycivil2000@gmail.com.

Table of Contents

1. Areas of specialization: Structural Engineering 4
2. Area of Interest 4
   2.1. Research 4
   2.2. Testing and Consultancy 4
3. Academic Career Records 4
4. Academic - Doctoral Degree [Ph.D.] Details. 5
5. National/State/Others -Test Scores/ Ranks 5
6. Details Present & Past Employment 5
7. Total Experience 6
8. Research guidance 6
9. Publication details 6
10. Sponsored Projects (Project handled as Principal Investigator in last 10 Years) 6
11. Patent Granted and published details 7
12. List of Publications (National & International Journals) 9
13. List of Conference Publications 14
    13.1. International Conference Publication 14
    13.2. National Conference Publications 20
14. Key Publications in the Field of Interest 24
15. Lab & Infrastructure developed last 8 years at NITK 25
16. Research & Development Details: Ph. D and M. Tech (Research) scholars' details 25
    16.1. Ph. D Guided (15)/ Guiding (6) 25
    16.2. M. Tech (Research) students Guided (4) 27
    16.3. M.E/ MTech Project Guided (49) 28
17. Major Testing and Consultancy work 32
18. Books / Chapters Published & E-learning materials Developed 33
    18.1. International Publications in the form of Book Chapters 33
    18.2. International Publications in the form of Books 34
    18.3. International Book Chapter Edited 34
19. Professional Training Received / Summer / Winter Schools attended 35
20. Conferences / Seminars / Workshops attended 37
    20.1. International 37
    20.2. National Level 41
21. Industrial Experience / Interaction 44
22. Continuing Education Programs /Short Term Courses/Workshops/Seminars etc. organized: 44
23. Experience in Administrative Positions, Curriculum and Lab Development,

Student Welfare, Professional and Outreach Activities: 46
24. Awards and Recognitions 47
25. Reviewer for National and International Journals 47
26. Documentation Skills 48
27. Events Organized 48
28. Subjects Taught 50
29. Foreign Countries Visited 51

1. **Areas of specialization:** Structural Engineering
2. **Area of Interest**

2.1. Research

Structural Engineering & Concrete Technology: Bio-concrete, carbon sink binders, and fatigue life prediction of concrete & Structures, health monitoring of bridges & Structures, concrete batteries, non-destructive testing techniques (NDT), concrete and cement chemistry, biochar in concrete, bio-healing, bacterial concrete, biofilms, and bio-corrosion inhibition, self-healing concrete, fiber-reinforced concrete, prestressed concrete, micro-characterisation of concrete materials, and structural behavior of beam–column joints, application of artificial intelligence and machine learning in material characterization, structural health monitoring, and predictive modeling, structural stability and life predication.

2.2. Testing and Consultancy

Major consultancy and research works in the areas of Non-Destructive Testing (NDT) evaluation, structural stability assessment, and structural health monitoring of buildings and infrastructure, Project Management Consultancy (PMC), third-party technical audits of major construction projects, and structural vetting of design and detailing, repair and rehabilitation of existing structures, ensuring safety, durability, and compliance with relevant engineering standards.

3. **Academic Career Records**

Certificate / Degree [UG & PG]	Year	School/ College	Board/ University	Class/ Division	%/ CGPA
Ph. D / Civil Engineering	2009	Govt. College of Technology, Coimbatore 13, Tamil Nadu, India.	Anna University, Chennai. India.	Commended	86.75
M.E/ Structural Engineering	2002	Government College of Engineering, Salem - 11. Tamil Nadu. India	Periyar University, Salem. India.	First Class	70.13
B.E / Civil Engineering	2000	Government College of Engineering, Erode, Tamil Nadu, India.	Bharathiyar University, Coimbatore, India.	First Class	70.13
DCE / Civil Engineering	1997	Sakthi Institute of Technology, Sakthinagar, Erode - Dist. Tamil Nadu. India	Directorate of Technical Education, Chennai, India.	First Class with Honors	85.16

SSLC	1993	Government Higher Secondary School, Olagadam, Erode – Dist. India	Department of Government Examinations, Madras.	First Class	67.00

4. Academic - Doctoral Degree [Ph.D.] Details.

Thesis Title	From Date	To Date	Institute / University	Final Viva Voce Date	Award Date
Studies on Strength and Durability of High-Performance Concrete with Silica Fume and Ground Granulated Blast Furnace Slag as a Mineral Admixtures	05.01.2005	September 2008	Anna University, Chennai, India.	06.04.2009	19.05.2009

5. National/State/Others -Test Scores/ Ranks

Examination	Year	Branch / Area of Specialization	Score	Rank	Percentile
GATE – 2001	2001	Civil Engineering	88.10	3274	88.10
Tamil Nadu Public Service Commission (TNPSC)	2009	Civil Engineering	213/ 250	06	85.20

6. Details Present & Past Employment

S. NO	Employer	Position Held	Date of Joining	Date of Leaving	No. of Months/ Years	Scale of Pay & GP/AGP (If Applicable)
8	National Institute of Technology Karnataka (NITK), Surathkal, Mangalore – 575025, Karnataka state, India.	Associate Professor	09.10.2023	Still Woking	-	37400-64000 + AGP 9500
7	National Institute of Technology Karnataka (NITK), Surathkal, Mangalore – 575025, Karnataka state, India.	Asst. Professor	22.06.2018	08.10.2023	5 Years 5 months	15600 – 39100 - AGP 8000 (Grade – I)
6	I.K. Gujral Punjab Technical University (PTU), Punjab state, India. (Govt. of Punjab).	Associate Professor	19.06.2017	18.06.2018	1Year/ 0 months/ 0 days	37400-67000+AGP9000

5	K.S.R. College of Engineering, Tiruchengode – 637215.	Professor	01.11.2014	16.06.2017	2 Years/ 3 months/ 9 days	37400-67000+AGP 10000
4	K.S.R. College of Engineering, Tiruchengode – 637215.	Associate Professor	01.05.2009	31.10.2014	5 years / 5 months/ 30 days	37400-67000+AGP 9000
3	K.S.R. College of Engineering, Tiruchengode – 637215.	Asst. Professor	01.07.2008	30.04.2009	9 months/ 29 days	12000-420-18300
2	K.S.R. College of Engineering, Tiruchengode – 637215.	Senior Lecturer	01.07.2007	30.06.2008	11 months/ 29 days	10000-325+ AGP 15200
1	K.S.R. College of Engineering, Tiruchengode – 637215.	Lecturer	25.11.2002	30.06.2007	4 years/ 7 months/ 5days	8000-275-13500

7. Total Experience

Teaching Experience	23 Years 10 Months 22 days as on (14.10.2026)	24 Years (Including Ph. D study period)
Industrial Experience	28.04.2000 to 31.12.2000 (8 Months / 3 Days) 01.06.2001 to 21.11.2001 (5 Months / 20 Days)	1 Year/ 1 Month

8. Research guidance

Completed			**Submitted**		**Ongoing**		
Ph.D.	**PG (R)**	**P.G.**	**Ph.D.**	**PG (R)**	**Ph.D.**	**PG (R)**	**P.G.**
16	**04**	**20**	**01**	**-**	**04**	**01**	**06**

9. Publication details

Journal/ Conference	**International** (SCI, Scopus indexed)	**National** (SCI, Scopus indexed)
Journal Papers	**43**	**09**
Conference Publications	**46**	**29**

10. Sponsored Projects (Project handled as Principal Investigator in last 10 Years)

S.NO	**Funding Agency**	**Title of the Project**	**Project Cost (Rs.)**	**Duration**	**Current Status**	**Remarks**
	Ministry of	"Pre-oriented carbon fibre grid for Pozzolan based	**32,51,600**	2023-2026	Ongoing	**02 Patent Published, 01 PhD is**

4	Textiles	Low energy power source" under NTTM – National Technical Textile Mission, Ministry of Textiles, Govt. of India, New Delhi.				**ongoing, one Research Lab Developed**
3	DST - SER B	"Development of an Innovative Marine Bacteria Based Cement-Electrolyte Battery for Cathodic Protection of Reinforced Concrete as Low Power Operator"- Department of Science and Technology, (DST), Govt. of India, New Delhi.	**33,43,148**	2019 – 2020 to 2021 – 2022	Completed	**Patent Granted: 02, One PhD Produced, One Research Lab Developed Principal Investigator**
2	AICTE, New Delhi.	Research Promotion Scheme (RPS) "Production of innovative low cost construction materials by means of optimum particle packing technology via earth moist concrete (Ref no.:20/AICTE/RIFD/RPS (POLICY– iii) 44/2012-13 dated 13.02.2013.	**3,46,800**	2013 - 2014 to 2016 – 2017 (3 Years)	Completed	**Patent filed : 01 Principal Investigator**
1	Ministry of Earth Science, New Delhi.	Development of Eco-friendly Natural Basalt Rock Fiber Concrete Composites (NBRFC) for Earthquake Resistant Structures. (RefNo:MoES/P.O.(Seismo) /1(202)/2013 – PAC dated on 28.02.2014)	**18,65,758**	2014 – 2015 to 2017 – 2018 (3 Years)	Completed	**Patent GRANTED : 01, One Ph. D Produced Principal Investigator**
Cumulative Total Cost of the Project Rs:			**0.89 Crore**			

11. Patent Granted and published details (19)

[18] Palanisamy T, Swathy Krishna V R & Arjun S. (2024). An Active Hybrid Device with Carbonaceous Fibres and Alumino Silicious Binders. Indian Patent No. 605514 National Institute of Technology Karnataka (Registered: 26 December 2025; **Granted**: 09 October 2026).

[17] Palanisamy T & Anoop P. P. (2026). A Method for Preparing Microbial healing Composition. Indian Patent No. 596768, National Institute of Technology Karnataka (Filed: 30 November 2024; **Granted**: 24 July 2026).

[16] Palanisamy T, Subhash C. Yaragal & Chaitanya Chandrashekar Hosamane. (2026). A Twin-Walled Light-Assisted Culture Chamber for Phototrophic

Microorganisms. Indian Patent No. 498287-001, National Institute of Technology Karnataka (Filed: 13 April 2026; **Granted**: 24 June 2026).

[15] Palanisamy T & Shruthi B. S. (2025). Combined Low-Fatigue Shear–Flexure Testing Machine for Concrete Structural Members. Indian Patent No. 485114-001, National Institute of Technology Karnataka **Granted**.

[14] Palanisamy T & Anoop P. P. (2026). Humovascomimetic Livingcrete. Indian Patent No. 585540, National Institute of Technology Karnataka (Filed: 19 April 2024; **Granted**: 28 March 2026).

[13] Palanisamy T & Preeti Chaudhary (2025). Formation of Calcite Polymorph using Bactospore. Indian Patent No. 575849, National Institute of Technology Karnataka (Filed: 17 December 2024; **Granted**: 15 December 2025).

[12] Palanisamy T & Shruthi B. S. (2025). Device to monitor and record the propagation of fractures and cracks in concrete structures. Indian Patent No. 398078-001, National Institute of Technology Karnataka **Granted**.

[11] Palanisamy T & Preeti Chaudhary (2025). Bioprocessing based laboratory apparatus for the efficient production of sporulated bacterial cells. Indian Patent No. 470386-001, National Institute of Technology Karnataka **Granted**.

[10] Palanisamy T. & Anoop P. P. (2025). Microbial Biochar Healing Powder (MBHP) production device for laboratories. Indian Design No. 462064-001 National Institute of Technology Karnataka (Registered: 12 June 2025; **Granted**: 25 September 2025).

[09] Palanisamy T. & Arjun S. (2024). Liquid phase expulsion device for harnessing cement pore solution from hardened cement. Indian Design No. 429101-001 National Institute of Technology Karnataka (Registered: 02 September 2024; **Granted**: 11 December 2024).

[08] Palanisamy T. & Niveditha M. (2024). Device for capturing and infusing carbon dioxide to cure and strengthen concrete. Indian Design No. 422394-001 National Institute of Technology Karnataka (Registered: 05 July 2024; **Granted**: 03 October 2024).

[07] Palanisamy T. & Basil Baby (2024). Device based on pneumatic system for manufacturing of bioconcrete. Indian Design No. 409865-001 National Institute of Technology Karnataka (Registered: 08 March 2024; **Granted**: 03 May 2024).

[06] Palanisamy T. & Arjun S. (2025). Pozzolan based battery system with microbial activity. Indian Patent No. 557892 National Institute of Technology Karnataka (Filed: 12 May 2022; **Granted**: 13 January 2025).

[05] Palanisamy T. & Shruthi B. S. (2023). Ultrasonic velocity monitoring device

for concrete structures. Indian Design No. 388634-001 National Institute of Technology Karnataka (Registered: 19 June 2023; **Granted**: 04 September 2023).

[04] Palanisamy T. & Basil Baby (2026). A pneumcapsulator device for preparing bactoperl. Indian Patent No. 580980 National Institute of Technology Karnataka (Filed: 31 May 2022; **Granted**: 18 February 2026).

[03] Senthilkumar V, **Palanisamy T.** & Vijayakumar V. N. (2022). Microbialcreat composite. Indian Patent No. 399619 (Filed: 24 October 2014; Granted: 21 June 2022).

[02] Palanisamy T. & Sudharsan N. (2013). Glasscrete building blocks. Indian Patent Application No. 5315/CHE/2013 **Granted.**

[01] Palanisamy T. & Dineshkumar G. (2021). Basaltcrete building blocks. Indian Patent No. 361222 (Filed: 29 November 2012; **Granted:** 15 March 2021).

12. List of Publications (National & International Journals) (52)

[52] Preeti Chaudhary, **T. Palanisamy** (2026), Alka Gupta, Murali Gopal, Performance assessment of bioengineered hemp fiber reinforced bacterial cement mortar, Composites Part B: Engineering, Volume 327, 2026, 114118, ISSN 1359-8368, DOI: https://doi.org/10.1016/j.compositesb.2026.114118

[51] Shruthi Bastikoppa Sathish and **T. Palanisamy** (2026), "Fatigue characterization of hybrid fibre-reinforced concrete: S–N curve development, Weibull reliability modelling, and effect of variable amplitude loading," International Journal of Damage Mechanics, first published online October 12, , https://doi.org/10.1177/10567895261493708

[50] S R Mane, **T. Palanisamy** and S Sidvilasini (2026), "An Image-Assisted Framework for Crack Characterization and Shear Strength Prediction of Reinforced Concrete Beam–Column Joints," Iranian Journal of Science and Technology, Transactions of Civil Engineering, pp. 1–25, DOI: 10.1007/s40996-026-02265-2.

[49] P. P. Anoop and **T. Palanisamy** (2026), "Experimental investigation of bio-mortar enhanced with coconut shell biochar biocomposite under varying salinity conditions in marine water environment," Construction and Building Materials, vol. 511, Art. no. 145283, DOI: 10.1016/j.conbuildmat.2026.145283.

[48] P. Chaudhary and **T. Palanisamy** (2026), "Microstructural evolution and functional optimization of microbially induced calcium carbonate polymorphs in

cement mortar matrix under variable nutrient concentrations," *Journal of Sustainable Cement-Based Materials*, vol. 15, no. 1, pp. 273–293, DOI: 10.1080/21650373.2025.2566361.

[47] Niveditha M. & **Palanisamy T.** (2026), "Formulation of a Novel Carbon-Sequestering Binder Through Waste Encapsulation". *Arabian Journal for Science and Engineering*, 1-20. DOI: 10.1007/s13369-026-11109-0.

[46] Niveditha, M. and **Palanisamy, T**. (2026). Upcycling iron-rich industrial waste into a carbon-sequestering composite binder through optimized carbonation curing for structural applications. International Journal of Construction Management, 26(8), pp.1471-1489

[45] Niveditha M. & **Palanisamy T.** (2025), "Carbon sequestration and life cycle assessment of an industrial waste-derived carbon sink binder under saline water utilization". *J. Sustain. Cem. Mater*. DOI: 10.1080/15623599.2025.2556259.

[44] Arjun S. & **Palanisamy T.** (2025), "Exploring pore solution chemistry and solid phase assemblies in cement-based electrolytes for potential structural batteries". *Sustainable Chemistry and Pharmacy*, *48*, 102194. DOI:10.1016 /j.scp.2025.102194.

[43] Shruthi B. S. & **Palanisamy T.** (2026), "The effect of steel and macro polypropylene fibers on mechanical properties and flexural toughness of various concretes including microstructure". *Advances in Concrete Construction*, 21(1), 55–74. DOI: 10.12989/acc.2026.21.1.055.

[42] Palkar S. S. & **Palanisamy T**. (2025), "Stacked generalisation for improved prediction of joint shear in beam-column joints". *Systems and Soft Computing*, *7*, 200246. DOI: 10.1016/j.sasc.2025.200246.

[41] Niveditha M. & **Palanisamy T**. (2025), "Formulation of a carbon sink binder through multi objective optimization using response surface methodology". *Results in Engineering*, 27, 106715. DOI: 10.1016/j.rineng.2025.106715.

[40] Anoop P. P. & **Palanisamy T.** (2025), "Coconut shell biochar Bacillus cereus DKBovi 5 based biocomposite as a sustainable additive for cement mortar effect of pyrolysis temperature on characterization strength hydration and healing". *Sustainable Chemistry and Pharmacy*, 46, 102112. DOI: 10.1016/j.scp.2025.102112.

[39] Sunkavalli S. & **Palanisamy T**. (2025), "A hybrid machine learning approach for predicting joint shear capacity in beam column connections". *Iranian Journal of*

Science and Technology Transactions of Civil Engineering, pp. 1–21. DOI: 10.1007/s40996-025-01963-7.

[38] Chaudhary P., **Palanisamy T**., Gupta A. & Gopal M. (2025), "Macro and microstructure evaluation of self healing cement mortar enhanced with microbe immobilized hemp fiber". *Structures*, 73, 108301. DOI: 10.1016/j.istruc.2025.108301.

[37] Anoop P. P. & **Palanisamy T.** (2025), "Non reactive biochar and Bacillus pumilus RSB17 based healing powder a sustainable solution for enhanced bacterial viability in self healing mortar". *Science of The Total Environment*, 965, 178635. DOI: 10.1016/j.scitotenv.2025.178635.

[36] Niveditha M. & **Palanisamy T.** (2025), "Oxalic acid optimization for iron based solid waste conversion into a carbon sequestering composite building material". *Sustainable Chemistry and Pharmacy*, 43, 101875. DOI: 10.1016/j.scp.2024.101875.

[35] Arjun S. & **Palanisamy T.** (2025), "A sustainable approach to power cathodic prevention system cement based electrolytes with conductive and mineral additives for battery applications". *Journal of Building Pathology and Rehabilitation*, 10(1), 32. DOI: 10.1007/s41939-024-00703-0.

[34] Basil Baby, **Palanisamy T.**, Gupta A. & Gopal M. (2024), "Experimental evaluation of the synergistic effect of calcium precursor dosage and bacterial strain interactions on the biogenic healing potential of self healing cement mortar". *Journal of Sustainable Cement Based Materials*, 13(11), 1611–1630. DOI: 10.1080/21650373.2024.2404594.

[33] Shruthi B. S. & **Palanisamy T.** (2024), "Faury's particle packing concept for the efficient design of steel fiber reinforced concrete mixes to evaluate the compressive strength". *Journal of Structural Engineering*, 414, 134834.

[32] Prasanthni P., Priya B., **Palanisamy T.** & Dineshkumar G. (2024), "Enhancing PVCC beam performance through PVA fiber and basalt fabric in sustainable construction ductility strength and energy absorption improvements". *Revista Materia*, 29(1). DOI: 10.1590/1517-7076-RMAT-2023-0299.

[31] Anoop P. P., **Palanisamy T.**, Gupta A. & Gopal M. (2024), "Long lasting Bacillus safensis CG1 and Bacillus cereus DKBovi 5 based coconut shell biochar spore composites as self healing additives for bio mortar production". *Industrial Crops and Products*, 222, 120074. DOI: 10.1016/j.indcrop.2024.120074.

[30] Basil Baby & **Palanisamy T.** (2024), "An experimental investigation on mitigating cracks and augmenting the endurance of concrete structures in marine environment by bio mortar immobilised with halophilic bacteria". *Construction and Building Materials*, 414, 134834. DOI: 10.1016/j.conbuildmat.2023.134834.

[29] Arjun Sundaramoorthi & **Palanisamy T.** (2023), "A comprehensive review on cement based batteries and their performance parameters". *Journal of Engineering and Applied Science*, 70, 39, pp. 1–17. DOI: 10.1186/s44147-023-00213-9.

[28] Balasubramanian S., **Palanisamy T.** & Senthilkumar S. (2023), "Comparative analysis of strength behaviours on concrete frames under severe earthquake loads". *Journal of Environmental Protection and Ecology*, 24(3), 874–887.

[27] Dineshkumar G. & **Palanisamy T.** (2023), "Influence of basalt fiber on the behavior of beam column joint under cyclic loading". *Materials Today Proceedings*. DOI: 10.1016/j.matpr.2023.04.232.

[26] Alagundi S. & **Palanisamy T.** (2022), "Neural network prediction of joint shear strength of exterior beam column joint". *Structures*, 37, 1002–1018. DOI: 10.1016/j.istruc.2022.01.013.

[25] Gunasekaran M. & **Palanisamy T.** (2022), "Impact of fly ash and bagasse ash on durability performance of lightweight concrete with the experimental study". *Cement Wapno Beton*, 27(5), 353–368. DOI: 10.32047/CWB.2022.27.5.5.

[24] Gunasekaran M. & **Palanisamy T.** (2022), "Effect of fly ash and bagasse ash on the mechanical properties of lightweight concrete". *Cement Wapno Beton*, 27(2), 72–101. DOI: 10.32047/CWB.2022.27.2.1.

[23] Senthamilselvi P., **Palanisamy T.** & Senthilkumar S. (2022), "Effect of chloride on accelerated corrosion of steel rebar in alkali activated fly ash and paper sludge ash reinforced concrete". *International Journal of Electrochemical Science*, 17, 221298. DOI: 10.20964/2022.12.101

[22] Muhammed A., Thangaraju P. & Shanmugamoorthy S. (2022), "Assessment on durability of lightweight concrete using alkali modified fly ash based artificial coarse aggregate (FACA)". *International Journal of Coal Preparation and Utilization*. DOI: 10.1080/19392699.2022.2139248.

[21] Muhammed A. & Thangaraju P. (2019), "Experimental investigation on FACA and FACACRETE an innovative building material". *KSCE Journal of Civil Engineering*, 23(11), 4758–4770. DOI: 10.1007/s12205-019-0046-x.

[20] Jagadeesan P. & **Palanisamy T.** (2019), "Study on performance of infilled wall

in RC framed structure using basalt fibre in cement mortar". *Journal of Structural Engineering India*, 45(6), 512–519.

[19] Senthamilselvi P. & **Palanisamy T.** (2018), "Flexural behaviour of reinforced fly ash and paper sludge ash based geopolymer concrete beams". *Journal of Structural Engineering India*, 45(2), 201–209.

[18] Senthamilselvi P. & **Palanisamy T.** (2018), "Experimental and analytical study on flexural behaviour of fly ash and paper sludge ash based geopolymer concrete". *Computers and Concrete*, 21(2), 157–166. DOI: 10.12989/cac.2018.21.2.157.

[17] Sudharsan N., **Palanisamy T.** & Yaragal S. C. (2018), "Environmental sustainability of waste glass as a valuable construction material a critical review". *Ecology Environment and Conservation*, 24, S331–S338.

[16] Sudharsan N. & **Palanisamy T.** (2018), "A comprehensive study on potential use of waste materials in brick for sustainable development". *Ecology Environment and Conservation*, 24, S339–S343.

[15] Pachamuthu S. & **Thangaraju P.** (2017), "Effect of incinerated paper sludge ash on fly ash based geopolymer concrete". *Gradjevinar*, 69(9), 851–859. DOI: 10.14256/JCE.1864.2016.

[14] Palanivelu R., Rajendran V., Dhineshbabu N. R., **Palanisamy T.** & Balasubramanian S. (2015), "Comparative study of addition of amorphous nanosilica particles with different grades of cement mortar". *International Journal of Applied Ceramic Technology*, 12, E14–E22. DOI: 10.1111/ijac.12349.

[13] Jagadeesan P. & **Palanisamy T.** (2015), "Structural response of RC frame with infilled wall using confinement". *Journal of Structural Engineering India*, 42(4), 341–347.

[12] Senthilkumar V., Vijayakumar V. N. & **Palanisamy T.** (2015), "Strength characteristics of microbial cement mortars treated in different calcium sources". *Advances in Cement Research*, 27(5), 289–296. DOI: 10.1680/adcr.14.00002.

[11] Sudha P., Selvaraj R. & **Palanisamy T.** (2015), "Experimental studies on cement mortar for partial replacement of cement by chemically activated clay". *International Journal of Earth Sciences and Engineering*, 8(5), 2038–2044.

[10] Jagadeesan P. & **Palanisamy T.** (2015), "Non linear pushover analysis of RC frame under static lateral loading". *International Journal of Earth Sciences and Engineering*, 8(4), 1699–1704.

[09] Jagadeesan P. & **Palanisamy T.** (2015), "Strengthening of brick masonry using basalt fiber reinforced cement mortar". *International Journal of ChemTech Research*, 8(10), 102–108.

[08] Sudha P., Selvaraj R. & **Palanisamy T.** (2015), "Intensification of calcined clay as a pozzolanic material in cement mortar". *International Journal of Applied Engineering Research*, 10(15), 35640–35644.

[07] Senthilkumar V., **Palanisamy T.** & Vijayakumar V. N. (2014), "Enrichment of compressive strength in microbial cement mortar". *Advances in Cement Research*, 26(6), 353–360. DOI: 10.1680/adcr.13.00053.

[06] Palanisamy T. & Dineshkumar G. (2014), "Performance evaluation and structural behavior of basalt fiber reinforced concrete". *International Journal of Earth Sciences and Engineering*, 7(2), 744–749.

[05] Senthilkumar V., **Palanisamy T.** & Vijayakumar V. N. (2014), "Fortification of compressive strength in Enterococcus microorganism incorporated microbial cement mortar". *International Journal of ChemTech Research*, 6(1), 636–644.

[04] Senthilkumar V., **Palanisamy T.** & Vijayakumar V. N. (2014), "Comparative studies on strength characteristics of microbial cement mortars". *International Journal of ChemTech Research*, 6(1), 578–590.

[03] Muralimohan N. & **Palanisamy T.** (2014), "Treatment of textile effluent by natural coagulants in erode district". *Asian Journal of Chemistry*, 26(3), 911–914. DOI: 10.14233/ajchem.2014.16201.

[02] Palanisamy T., Dineshkumar G. & Shalini A. (2013), "Performance evaluation and investigation on mechanical properties of polyester fiber reinforced concrete". *Journal of Structural Engineering India*, 40(4), 420–425.

[01] Palanisamy T. & Prabu B. (2013), "Structural behaviour of di blended fibre reinforced concrete slab panel". *Journal of Structural Engineering India*, 40(5), 449–456.

13. List of Conference Publications

13.1. International Conference Publication

[46] Niveditha M, **Palanisamy T** (2025) "A review on investigation of iron carbonate binder" in International Conference on Climate Resilient Construction and Building Materials (CRCBM), Springer, in NITK Surathkal, India

[45] Aparna, P. N., Niveditha, M., Githisha, B., & **Palanisamy, T.** (2025, June). Optimizing CO2 Curing for Sustainable Construction: Pressure Effects on

Carbonation Kinetics and Compressive Strength of Iron Carbonate Binder. In *International Conference on Structural Engineering and Construction Management* (pp. 463-475). Cham: Springer Nature Switzerland.

[44] Githisha, B., Niveditha, M., Aparna, P. N., & **Palanisamy, T**. (2025, June). Evaluating the Environmental Impact of Iron Carbonate Binder as a Carbon-Negative Alternative to Ordinary Portland Cement: A Life Cycle Assessment Study. In *International Conference on Structural Engineering and Construction Management* (pp. 477-490). Cham: Springer Nature Switzerland.

[43] Arsha Fathima, A. R., Swathy Krishna, V. R., & **Palanisamy, T**. (2025, June). Electrochemical Parametric Study of Cement Based Energy Device Using Fibers as Contacts. In *International Conference on Structural Engineering and Construction Management* (pp. 227-240). Cham: Springer Nature Switzerland.

[42] Rakesh, C., & **Palanisamy, T**. (2025, June). Maximizing Output Through Process Optimization in Batching Plant Production. In *International Conference on Structural Engineering and Construction Management* (pp. 559-574). Cham: Springer Nature Switzerland.

[41] More, J. A., Chaudhary, P., & **Palanisamy, T**. (2025, June). Innovative Approaches to Self-healing Concrete: A Review on Microbial Loading and Immobilization Techniques. In *International Conference on Structural Engineering and Construction Management* (pp. 103-114). Cham: Springer Nature Switzerland.

[40] Pandey, D., Chaudhary, P., & **Palanisamy, T**. (2024, December). Impact of Hemp Fiber on Mechanical and Durability Characteristics of Bacterial-Based Cement Mortar. In *International Conference on Recent Advances in Structural Engineering* (pp. 35-47). Singapore: Springer Nature Singapore.

[39] Sidvilasini, S., & **Palanisamy, T**. (2024, November). Improving Structural Safety with Machine Learning: Shear Strength Prediction in Interior Beam-Column Joints. In *2024 First International Conference for Women in Computing (InCoWoCo)* (pp. 1-5). IEEE.

[38] Sidvilasini, S., **Palanisamy, T**. (2026). Enhancing Shear Force Prediction in Beam-Column Joints: A Comparative Machine Learning Approach with Multiple Codes of Practice. In: Balaji, N.C., Venkataramana, K., G. S., P. (eds) Structural Engineering Innovations for Resilient Infrastructure. SIIOC 2024. Lecture Notes in Civil

Engineering, vol 849. Springer, Singapore. https://doi.org/10.1007/978-981-95-9000-1_3

[37] Palanisamy, T., Ishaan, M. B., Furtado, W., Patidar, J., & Bhardwaj, M. (2024, July). Strength and Durability Characteristics of Light Weight Concrete Mixes. In *International Conference on Transportation System Engineering and Management* (pp. 45-57). Singapore: Springer Nature Singapore.

[36] Sai Teja, A., **Palanisamy, T**., Anoop, P. P., & Gopal, M. (2024, June). Bacillus Subtilis Immobilised Areca Fibre Mortar for Robust Self-healing. In *International Conference on Structural Engineering and Construction Management* (pp. 407-429). Cham: Springer Nature Switzerland.

[35] Niveditha, M., Jagati, D. P., & **Palanisamy, T.** (2024, June). Advancing carbon neutrality: formulation and microstructural analysis of iron carbonate binder with normal and saline water. In *International Conference on Structural Engineering and Construction Management* (pp. 287-302). Cham: Springer Nature Switzerland.

[34] Niveditha, M., Chouksey, A., & **Palanisamy, T.** (2024, June). Crafting sustainability: optimizing oxalic acid in iron carbonate binder formulation with waste iron powder for a Carbon-Negative impact. In *International Conference on Structural Engineering and Construction Management* (pp. 259-272). Cham: Springer Nature Switzerland.

[33] Walke, S., Arjun, S., & **Palanisamy, T**. (2024, June). Prediction of Pore Solution Concentration in Cement Composite System by Using Machine Learning Techniques. In *International Conference on Structural Engineering and Construction Management* (pp. 195-207). Cham: Springer Nature Switzerland.

[32] Hosamane, C. C., Chaudhary, P., & **Palanisamy, T.** (2024, June). Examining the Effect of Diverse Calcium Sources on Cement Mortar Using Bacillus Subtilis Through MICP: A Preliminary Investigation. In *International Conference on Structural Engineering and Construction Management* (pp. 209-223). Cham: Springer Nature Switzerland.

[31] Majeed, P. M., Baby, B., & **Palanisamy, T**. (2024, June). Optimisation of Cement Mortar Performance Through Bagasse Ash as a Sustainable Supplementary Material.

In *International Conference on Structural Engineering and Construction Management* (pp. 171-183). Cham: Springer Nature Switzerland.

[30] Palkar, S. S., & **Palanisamy, T.** (2023, June). Adaptive neuro-fuzzy systems and ensemble methods in joint shear prediction and sensitivity analysis. In *International conference on structural engineering and construction management* (pp. 917-929). Cham: Springer Nature Switzerland.

[29] Abhiram, H. C., & **Palanisamy, T**. (2023, April). Comparative Study on Prediction of Interfacial Bond Strength of FRP with Concrete Using Machine Learning Methods. In *International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges* (pp. 959-970). Singapore: Springer Nature Singapore.

[28] Rakesh Kumar, N., Arjun, S., & **Palanisamy, T**. (2023, April). Assessment of Ionic Composition of Fresh Cement Blends System with Addition of SCMs and Conductive Materials. In *International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges* (pp. 837-845). Singapore: Springer Nature Singapore.

[27] Akshay, J. P., Baby, B., & **Palanisamy, T.** (2022, June). Experimental study on durability and mechanical properties of lightweight mortar with encapsulated spore forming bacteria. In *International conference on structural engineering and construction management* (pp. 1185-1197). Cham: Springer International Publishing.

[26] Vamsi, A., Baby, B., & **Palanisamy, T**. (2022, June). Seismic Analysis of a PSC I Girder Bridge Using Nonlinear Static Method. In *International Conference on Structural Engineering and Construction Management* (pp. 67-80). Cham: Springer International Publishing.

[25] Palanisamy, T., Shakya, R., Nalla, S., & Prakhya, S. S. (2022, June). Crack Detection in Concrete Using Artificial Neural Networks. In *International Conference on Structural Engineering and Construction Management* (pp. 877-885). Cham: Springer International Publishing.

[24] Netam, N., & **Palanisamy, T**. (2022, June). Prediction of compressive strength and workability characteristics of self-compacting concrete containing fly ash using artificial neural network. In *International Conference on Structural Engineering and Construction Management* (pp. 55-65). Cham: Springer International Publishing.

[23] Baby, B., **Palanisamy, T.**, & Arjun, S. (2022, June). Review of various microbial

immobilization methods towards self-healing application. In *International Conference on Structural Engineering and Construction Management* (pp. 587-597). Cham: Springer International Publishing.

[22] Sumesh Manohar, G., & **Palanisamy, T.** (2022, June). Predicting the Axial Load Carrying Capacity of Columns Reinforced with GFRP Rebars Using ANN Modelling. In *International Conference on Structural Engineering and Construction Management* (pp. 103-113). Cham: Springer International Publishing.

[21] Swapnil, B., & **Palanisamy, T**. (2022, June). Intelligent modeling for shear strength of RC exterior beam-column joint subjected to seismic loading. In *International conference on structural engineering and construction management* (pp. 39-53). Cham: Springer International Publishing.

[20] Alagundi, S., & **Palanisamy, T.** (2022). Numerical Modeling on Buckling Behavior of Structural Stiffened Panel. In *Recent Advances in Structural Engineering and Construction Management: Select Proceedings of ICSMC 2021* (pp. 77-87). Singapore: Springer Nature Singapore.

[19] Alagundi, S., & **Palanisamy, T.** (2021, October). ANN model for joint shear strength of RC interior beam-column joint. In *CIGOS 2021, Emerging Technologies and Applications for Green Infrastructure: Proceedings of the 6th International Conference on Geotechnics, Civil Engineering and Structures* (pp. 1235-1243). Singapore: Springer Nature Singapore.

[18] Palanisamy T. (2017, January). Influence of strengthened infilled wall in RC framed structure. In *International Conference on Civil and Structural Engineering (ICIET-17)*, Canadian Arena of Applied Scientific Research, Dubai, UAE (pp. 1–14). ISBN: 978-0-9948937-5-8.

[17] Palanisamy T. (2017, January). Structural behaviour of beam column joint with basalt fiber reinforced concrete. In *International Conference on Civil and Structural Engineering (ICIET-17)*, Canadian Arena of Applied Scientific Research, Dubai, UAE (pp. 15–22). ISBN: 978-0-9948937-5-8.

[16] Palanisamy T. (2017, January). Corrosion study on fly ash based geopolymer concrete with partial replacement of fly ash by paper sludge using impressed voltage method. *In International Conference on Civil and Structural Engineering (ICIET-17)*, Canadian Arena of Applied Scientific Research, Dubai, UAE (pp. 23–36). ISBN: 978-

0-9948937-5-8.

[15] Palanisamy. T, & Balasubramanian Sankaranarayanan (2016). Study on Behavior of Geopolymer Beam Column Joint. *Proceedings of the International Conference on* I*nnovative Engineering and Technologies (caasr-2ndiciet `16) & Proceedings of the International Conference on Civil & Structural Engineering (CAASR-ICCSE `16)* DOI: 10.18797/caasr/2ndiciet/iccse/2016/05/05/12.

[14] Palanisamy. T (2016). Study on Effect of Proximity of Interfering Building on Wind Pressure and Velocity. *Proceedings of the International Conference on* I*nnovative Engineering and Technologies (caasr-2ndiciet `16) & Proceedings of the International Conference on Civil & Structural Engineering (CAASR-ICCSE `16)* DOI: 10.18797/caasr/2ndiciet/iccse/2016/05/05/02.

[13] Palanisamy T. (2016, March). Experimental study on manufacturing of artificial aggregate using geopolymer technique in concrete. In *International Conference on Materials Science and Technology*, University of Delhi, New Delhi, India. VBRI Press. DOI: 10.5185/icmtech.2016 ISBN: 978-91-8825-01-2.

[12] Palanisamy T. (Year). Study on mechanical properties and structural behaviour of recron fiber reinforced concrete members. In *8th International Conference on Science Engineering and Technology (SET)*, VIT University, Vellore, India.

[11] Palanisamy T. (2011, February). Experimental study on RC framed with infilled wall under static loading. In *International Conference on Civil Structural and Environmental Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 234–239). AICTE. ISBN: 978-93-80697-63-5.

[10] Palanisamy T. (2011, February). Wastewater treatment by natural coagulants a review. In *International Conference on Civil Structural and Environmental Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 740–742). AICTE. ISBN: 978-93-80697-63-5.

[09] Palanisamy T. (2011, February). Overview of bacterial concrete. In *International Conference on Civil Structural and Environmental Engineering, K.S.R. College of Engineering*, Tiruchengode, India (pp. 144–146). AICTE. ISBN: 978-93-80697-63-5.

[08] Palanisamy T. (2011, February). Corrosion propagation study on high performance concrete specimens with in situ experimental evaluation technique. In

International Conference on Civil Structural and Environmental Engineering, K.S.R. College of Engineering, Tiruchengode, India (pp. 33–39). AICTE. ISBN: 978-93-80697-63-5.

[07] Palanisamy T. (2011, February). Guidelines for reconstruction of building with multi hazard a review. In *International Conference on Civil Structural and Environmental Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 453–458). AICTE. ISBN: 978-93-80697-63-5.

[06] Palanisamy T. (2011, February). Alkali activated Al and Si rich sources based geopolymer a review about current state. In *International Conference on Civil Structural and Environmental Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 429–439). AICTE. ISBN: 978-93-80697-63-5.

[05] Palanisamy T. (2011, February). A state of the art report on behaviour of shear wall for static and dynamic loads using FEA. In *International Conference on Civil Structural and Environmental Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 508–513). AICTE. ISBN: 978-93-80697-63-5.

[04] Palanisamy T. (2011, February). Experimental study on castellated beam chassis with static loading. In *International Conference on Civil Structural and Environmental Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 597–599). AICTE. ISBN: 978-93-80697-63-5.

[03] Palanisamy T. (2012, March). Structural behaviour of fibre reinforced concrete slab panel using natural fibre. In *International Conference on Advances in Construction Manufacturing and Automation Research*, Kongu Engineering College, Perundurai, India (pp. 101–105). AICTE.

[02] Palanisamy T. (2007, August). An experimental study on crack initiation and rehabilitation of channel section with welding. In *International Conference on Recent Developments in Structural Engineering*, Manipal Institute of Technology, Manipal, India (pp. 1497–1499). Manipal Institute of Technology.

[01] Palanisamy T. (2007, August). Corrosion effect of high-performance concrete with partial replacement of cement by silica fume and GGBS. In *International Conference on Recent Developments in Structural Engineering*, Manipal Institute of Technology, Manipal, India (pp. 994–1001)

13.2. National Conference Publications

[29] Gnanasundar, V. M., **Palanisamy, T**., Thirugnanam, G. S., & Preetha, V. (2022). Mechanical properties of fiber reinforced concrete by using sisal fiber with M-Sand as fine aggregate. *Materials Research Proceedings*, *23*, 76-82.

[28] Gnanasundar[1], V. M., **Palanisamy, T**., Thirugnanam, G. S., & Vishalachi, C. (2022). Experimental analysis of glass fibre in concrete. *Sustainable Materials and Smart Practices: NCSMSP-2021*, *23*, 246.

[27] Gnanasundar, V. M., **Palanisamy, T**. S., Afrith, M. R., & Pradeepkumar, B. (2022). Evaluation of Mechanical Properties on Light Weight Concrete by using Silica Fume with M-Sand. *Sustainable Materials and Smart Practices: NCSMSP-2021*, *23*, 68.

[26] Palanisamy T. (2014, May). Study on geopolymer coatings for evaluation of corrosion protection of steel reinforcements in RCC structures. In *National Conference on Trendy and Sustainable Development in Civil Engineering (NCTSDCE-14)*, K.S.R. College of Engineering, Tiruchengode, India (pp. 59–65). AICTE.

[25] Palanisamy T. (2013, April). Experimental investigation of polyvinyl alcohol fiber in mortar. In *National Conference on Trendy and Sustainable Development in Civil Engineering (NCTSDCE-14),* K.S.R. College of Engineering, Tiruchengode, India (pp. 98–100). AICTE.

[24] Palanisamy T. (2013, April). Strength characteristics of recron fiber reinforced concrete using NDT. In *National Conference on Trendy and Sustainable Development in Civil Engineering (NCTSDCE-14),* K.S.R. College of Engineering, Tiruchengode, India (pp. 101–107). AICTE.

[23] Palanisamy T. (2013, April). Corrosion propagation study on high performance concrete specimens with in situ experimental evaluation. In *National Conference on Trendy and Sustainable Development in Civil Engineering (NCTSDCE-14),* K.S.R. College of Engineering, Tiruchengode, India (pp. 30–35). AICTE.

[22] Palanisamy T. (2013, April). Performance of waste glass powder in concrete. In *National Conference on Trendy and Sustainable Development in Civil Engineering (NCTSDCE-14),* K.S.R. College of Engineering, Tiruchengode, India (pp. 203–206). AICTE.

[21] Palanisamy T. (2013, April). Hybrid fiber reinforced concrete a review. In *National Conference on Trendy and Sustainable Development in Civil Engineering (NCTSDCE-14),* K.S.R. College of Engineering, Tiruchengode, India (pp. 134–139). AICTE.

[20] Palanisamy T. (2013, April). Basalt fiber reinforced concrete a review. In *National*

Conference on Trendy and Sustainable Development in Civil Engineering (NCTSDCE-14), K.S.R. College of Engineering, Tiruchengode, India (pp. 159–163). AICTE.

[19] Palanisamy T. (2012, April). Investigation on dynamic behaviour of castellated beam. In *National Conference on Advances in Concrete Construction and Technology*, K.S.R. College of Engineering, Tiruchengode, India (pp. 392–397). CSIR.

[18] Palanisamy T. (2012, April). Effect of mechanical properties on polyester fibers in concrete composites. In *National Conference on Advances in Concrete Construction and Technology,* K.S.R. College of Engineering, Tiruchengode, India (pp. 194–200). CSIR.

[17] Palanisamy T. (2012, April). Experimental investigation of hybrid fiber in concrete. In *National Conference on Advances in Concrete Construction and Technology,* K.S.R. College of Engineering, Tiruchengode, India (pp. 201–205). CSIR.

[16] Palanisamy T. (2012, April). Estimation of dynamic forces on the structures with multi hazard. In *National Conference on Advances in Concrete Construction and Technology,* K.S.R. College of Engineering, Tiruchengode, India (pp. 55–59). CSIR.

[15] Palanisamy T. (2012, April). Strength development of natural fiber reinforced concrete composites. In *National Conference on Advances in Concrete Construction and Technology,* K.S.R. College of Engineering, Tiruchengode, India (pp. 189–193). CSIR.

[14] Palanisamy T. (2012, April). Performance evaluation of polypropylene fiber in cementitious composites. In *National Conference on Advances in Concrete Construction and Technology,* K.S.R. College of Engineering, Tiruchengode, India (pp. 184–188). CSIR.

[13] Palanisamy T. (2012, April). Study and characterisation of foam concrete. In *National Conference on Advances in Concrete Construction and Technology, K.S.R. College of Engineering*, Tiruchengode, India (pp. 111–115). CSIR.

[12] Palanisamy T. (2010, September). Investigation and characteristics study of nanocements in concrete a review. In *National Conference on Advancement in Concrete Technology,* K.S.R. College of Engineering, Tiruchengode, India (pp. 245–248). AICTE.

[11] Palanisamy T. (2010, September). A state of the art on nano fiber concrete composites. In *National Conference on Advancement in Concrete Technology, K.S.R. College of Engineering*, Tiruchengode, India (pp. 269–272). AICTE.

[10] Palanisamy T. (2010, September). Comparison on effects of temperature in sugarcane bagasse ash as a partial replacement of cement in concrete composites a

review. In *National Conference on Advancement in Concrete Technology, K.S.R. College of Engineering,* Tiruchengode, India. AICTE.

[09] Palanisamy T. (2010, February). Propagation and performance evaluation of high performance concrete elements with corrosion environment. In *National Conference on Emerging Trends in Civil Engineering 2010*, K.S.R. College of Engineering, Tiruchengode, India (pp. 138–145). AICTE.

[08] Palanisamy T. (2010, February). Sugarcane bagasse ash as a cement replacement material in cement concrete. In *National Conference on Emerging Trends in Civil Engineering 2010,* K.S.R. College of Engineering, Tiruchengode, India (pp. 180–183). AICTE.

[07] Palanisamy T. (2010, February). Experimental study on seismic behaviour of square panel under static diagonal loading. In *National Conference on Emerging Trends in Civil Engineering 2010*, K.S.R. College of Engineering, Tiruchengode, India (pp. 103–110). AICTE.

[06] Palanisamy T. (2010, February). Investigation on shear wall for static and dynamic loads a review. In *National Conference on Emerging Trends in Civil Engineering 2010*, K.S.R. College of Engineering, Tiruchengode, India (pp. 312–318). AICTE.

[05] Palanisamy T. (2010, February). Natural coagulant moringa oliefera. In *National Conference on Emerging Trends in Civil Engineering 2010,* K.S.R. College of Engineering, Tiruchengode, India (pp. 192–198). AICTE.

[04] Palanisamy T. (2010, May). Experimental study on composite encased beam elements. In *National Conference on Contemporary Challenges and Pioneering Technologies in Civil Engineering*, K.S.R. College of Engineering, Tiruchengode, India (pp. 188–194). CSIR.

[03] Palanisamy T. (2010, May). Experimental study on load deflection curve of open web encased beam. In *National Conference on Contemporary Challenges and Pioneering Technologies in Civil Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 182–187). CSIR.

[02] Palanisamy T. (2010, May). A state of the art report on investigation of shear wall for static and dynamic loads. In *National Conference on Contemporary Challenges and Pioneering Technologies in Civil Engineering,* K.S.R. College of Engineering, Tiruchengode, India (pp. 214–217). CSIR.

[01] Palanisamy T. (2006, December). Strength development of high strength concrete with partial replacement of cement by silica fume and GGBS. In *TEQIP*

Sponsored National Conference on Recent Developments in Concrete, Government College of Technology, Coimbatore, India (pp. 389–396). TEQIP.

14. Key Publications in the Field of Interest

P. P. Anoop and **T. Palanisamy** (2026), "Experimental investigation of bio-mortar enhanced with coconut shell biochar biocomposite under varying salinity conditions in marine water environment," Construction and Building Materials, vol. 511, Art. no. 145283, doi: 10.1016/j.conbuildmat.2026.145283.

Niveditha, M., & **Palanisamy, T.** (2025). Carbon sequestration and life cycle assessment of an industrial waste-derived carbon sink binder under saline water utilization. *J. Sustain. Cem. Mater*.

Shruthi, B. S., & **Palanisamy, T.** (2024). Faury's particle packing concept for the efficient design of steel fiber reinforced concrete mixes to evaluate the compressive strength. *Journal of Structural Engineering*, *51*(4), 206-217.

Arjun, S., & **Palanisamy, T.** (2025). Exploring pore solution chemistry and solid phase assemblies in cement-based electrolytes for potential structural batteries. *Sustainable Chemistry and Pharmacy*, *48*, 102194.

Palkar, S. S., & **Palanisamy, T**. (2025). Stacked generalisation for improved prediction of joint shear in beam-column joints. *Systems and Soft Computing*, *7*, 200246.

Sidvilasini, S., & **Palanisamy, T.** (2025). A Hybrid Machine Learning Approach for Predicting Joint Shear Capacity in Beam-Column Connections. *Iranian Journal of Science and Technology, Transactions of Civil Engineering*, 1-21.

Chaudhary, P., **Palanisamy, T**., Gupta, A., & Gopal, M. (2025, March). Macro and microstructure evaluation of self-healing cement mortar enhanced with microbe-immobilized hemp fiber. In *Structures* (Vol. 73, p. 108301). Elsevier.

Anoop, P. P., & **Palanisamy, T**. (2025). Non-reactive biochar and Bacillus pumilus RSB17-based healing powder: A sustainable solution for enhanced bacterial viability in self-healing mortar. *Science of The Total Environment*, *965*, 178635.

Baby, B., & **Palanisamy, T**. (2024). An experimental investigation on mitigating cracks and augmenting the endurance of concrete structures in marine environment by bio-mortar immobilised with halophilic bacteria. *Construction and Building Materials*, *414*, 134834.

Alagundi, S., & **Palanisamy, T**. (2022, March). Neural network prediction of

joint shear strength of exterior beam-column joint. In *Structures* (Vol. 37, pp. 1002-1018). Elsevier.

Muhammed, A., & **Thangaraju, P**. (2019). Experimental investigation on FACA and FACACRETE—an innovative building material. *KSCE Journal of Civil Engineering*, *23*(11), 4758-4770.

Senthilkumar, V., **Palanisamy, T**., & Vijayakumar, V. N. (2014). Enrichment of compressive strength in microbial cement mortar. *Advances in cement research*, *26*(6), 353-360.

15. Lab & Infrastructure developed last 8 years at NITK

- Bio-Concrete Laboratory, sponsored by the Ministry of Science and Technology (DST), New Delhi.
- Carbon Sequestration Laboratory, sponsored by the National Institute of Technology Karnataka (NITK), Surathkal.
- Cement Battery Research Laboratory, sponsored by the Ministry of Textiles – National Technical Textile Mission (NTTM), New Delhi.

16. Research & Development Details: Ph. D and M. Tech (Research) scholars' details

16.1. Ph. D Guided (16)/ Guiding (05)

S. No.	Name of Student	Year of completion/ registration	Title of the Thesis	Status (Completed / Ongoing)	Principal Guide & Co-Guide if any
21	**Mrs. S Sidvilasini**	2024	Optimized machine learning framework with parametric equation and interactive interface for predicting shear strength and failure modes in RC beam- column joints.	**Ongoing**	Principal Guide with Joint Supervisor
20	**Ms.Swathy K V R**	2024	Electrochemical characterization of pozzolan based active source incorporating conductive grids for low power applications	**Ongoing**	Principal Guide
19	**Ms. Chaitanya C H**	2024	Cynobacteria as a sustainable agent for biocementation	**Ongoing**	Principal Guide with Joint Supervisor
18	**Mr. Sagar Darur**	2023	Durability enhancement of microbial mortar using biofilm derived from robust bacteria	**Ongoing**	Principal Guide with Joint Supervisor
17	**Mrs. Shruthi B S**	February 2026/2022	Flexural fatigue behaviour of fiber reinforced concrete	**Completed**	Principal Guide
16	**Mr. Anoop P P**	Oct 2025/ 2022	Biochar incorporated BioConcrete	**Completed**	Principal Guide

15	**Ms. Niveditha M**	Aug 2026/Aug 2021	Manufacture of ferrock for carbon-negative concrete	**Completed**	Principal Guide
14	**Ms. Preeti Chaudhary**	Aug 2021	Characterization Of Microbially Induced Calcite Precipitate Polymorphs In Cementitious Composite	**Submitted**	Principal Guide
13	**Mr. Arjun S**	March 2026/ Aug 2021	Characterization Of Pore Solution And Correlation To The Cement Based System Performance	**Completed**	Principal Guide
12	**Mr. Basil Baby**	Mar 2025/ Aug 2019	Development of an Innovative Bio-Mortar for Enhancing Durability of Concrete Structures	**Completed**	Principal Guide
11	**Dr. Senthamilselvi P**	Jan 2021/ Jan 2010	An experimental investigation on properties of fly Ash based geopolymer concrete incorporated with Paper sludge ash	**Completed**	Principal Guide with Joint Supervisor
10	**Dr. PRASANTHNI P**	March 2019/ Jan 2010	Strengthening of Reinforced Concrete Beam with Polyvinyl Alcohol Cementitious Composites and Basalt Fiber Fabric	**Completed**	Principal Guide
9	**Dr. B.PRIYA**	Dec 2018/ Jan 2010	Effect of hybrid fiber Reinforcement on the Structural Behaviour of beam and Beam column joint	**Completed**	Principal Guide
8	**Dr. M. Gunasekaran**	July - 2017/ Jan - 2012	Light weight concrete	**Completed**	Principal Guide
7	**Dr. N. Sudharsan**	May -2017 / June-2011	Experimental Study on Strength and Durability Properties of Glass powder in Brick and Brick Masonry	**Completed**	Principal Guide
6	**Dr. P. Sudha**	June -2017 / October-2009	Study on Strength and Durability Characteristics of Treated and Un treated Clay with cement Mortar	**Completed**	Principal Guide with Joint Supervisor
			Experimental study on alkali- modified fly		Principal

5	**Dr. Ajmal Muhammed**	March 2016/ Jan 2021	ash coarse aggregate in Structural concrete	**Completed**	Guide with Joint Supervisor
4	**Dr. P. Jagadeeasn**	November-2015/ October - 2009	Study on the strengthened infilled RC frame Structure using Basalt fibre reinforced cement mortar	**Completed**	Principal Guide
3	**Dr. Senthil Kumar V**	October - 2014/ July - 2010	Experimental studies on strength and durability characteristics of cement mortar embedded with bacterial species.	**Completed**	Principal Guide
2	**Dr. Muralimohan N**	December-2014/ July - 2010	Feasibility studies on tri-blended natural coagulants for the treatment of textile mill effluent	**Completed**	Principal Guide
1	**Dr. Dineshkumar G**	August - 2014/ October - 2009	Study on strength characteristics and structural behavior of polyester and basalt fiber reinforced concrete	**Completed**	Principal Guide

16.2. M. Tech (Research) students Guided (4)

S.No.	REGISTER NO.	NAME	TITLE OF PROJECT	MONTH AND YEAR OF COMPLETION
6	243EN001	MONISHA K	ROLE OF BIOCHAR IMMOBILISED NON UREOLYTIC BACTERIA IN IMPROVING THE SELF HEALING MECHANISM OF MORTAR	On going
5	243ST001	MANE SAKSHI RAJU	MACHINE LEARNING APPLICATIONS FOR CRACK DETECTION IN RC BEAM COLUMN JOINTS	Submitted the Thesis
4	223ST005	SUNKAVALLI SIDVILASINI	MACHINE LEARNING APPLICATIONS ON PREDICTING SHEAR STRENGTH OF BEAM-COLUMN JOINTS	DECEMBER 2024
3	223ST004	SRUTHI SHEKHAR PALKAR	PREDICTION OF JOINT SHEAR STRENGHT OF RC BEAM-COLUMN CONNECTIONS UNDER CYCLIC LOADING WITH MACHINE LEARNING MODELS	JULY 2024
2	202ST003	BOKADE SWAPNIL TRIMBAK	SHEAR STRENGTH OF RC EXTERIOR BEAM - COLUMN JOINTS : AN AUTOMATED ENSEMBLE LEARNING APPROACH WITH SENSITIVITY ANALYSIS	JULY 2022
1	193ST003	SHREYAS	MODEL FOR JOINT SHEAR STRENGTH OF RC BEAM- COLUMN	JUNE 2021

		ALAGUNDI	JOINT SUBJECTED TO SEISMIC LOADING	

16.3. M.E/ MTech Project Guided (56)

S.No.	REGISTER NO.	NAME	TITLE OF PROJECT	MONTH AND YEAR OF COMPLETION
56	24CM061	VISHAL M	PERFORMANCE EVALUATION OF IRON CARBONATE BINDER UNDER AGGRESSIVE EXPOSURE CONDITIONS AND EXTENDED CARBONATION CURING	JUNE 2025
55	242ST020	SHIKHILDAS P K	ELECTROCHEMICAL INVESTIGATION OF ELECTROPLATED SUBSTRATES IN CEMENT BASED BATTERIES	JUNE 2025
54	242ST008	CHETHAN. V	OPTIMIZATION OF TAMARIND SEED POWDER AS A NUTRIENT FOR BACILLUS BACTERIA IN MICP-BASED SELF-HEALING MORTAR	JUNE 2025
53	242ST006	CHAVAN PRAJAKTA SHAMRAO	PERFORMANCE ASSESSMENT OF BACTERIALLY IMMOBILIZED FIBRE REINFORCED CEMENT MORTAR	JUNE 2025
52	242ST012	GAMIT MANALIKUMARI SANJAYBHAI	UTILIZATION OF WASTE EGGSHELLS AS A SUSTAINABLE CALCIUM SOURCE IN MICP-BASED SELF-HEALING CONCRETE USING LYSINIBACILLUS SP	JUNE 2025
51	242ST010	DEEPAK GUPTA	COMPARATIVE ANALYSIS OF CYANOBACTERIAL CALCIFICATION VS UREOLYTIC CALCIFICATION IN BIO-CEMENTATION	JUNE 2025
50	242ST016	JAMI TARUN KUMAR	MACHINE LEARNING-BASED ESTIMATION AND VALIDATION OF DUCTILITY FACTOR FOR RC BEAM-COLUMN JOINTS	JUNE 2025
49	232CM009	CHINTADA RAKESH	MAXIMUM OUTPUT THROUGH PROCESS OPTIMIZATION IN BATCHING PLANT PRODUCTION	JUNE 2025
48	232ST028	MORE JAYSINGH AJIT	EFFECT OF CHEMICAL TREATMENTS ON THE PERFORMNCE OF MICROBE IMMOBILIZED HEMP FIBRE-CEMENT MORTAR	JUNE 2025
47	232ST011	CHANDRAKANT TATYASO SHITOLE	PERFORMANCE EVALATION OF COCONUT HUSK BIOCHAR IMMOBOLIZED BACILLUS VEREUS DKNOVI-5 IN TREATED COCONUT FIBRE BIO-MORTAR	JUNE 2025

46	232ST006	ARSHA FATHIMA A R	INVESTIGATOIN OF ELELCTROCHEMICAL PARAMETERS IN A CEMENT-BASED BATTERY USING FIBRE CONTACTS	JUNE 2025
45	232ST008	BOLLU GITHISHA	EVALUATION IRON CARBONATE BINDER AS A GREEN ALTERNATIVE PORTLAND CEMENT: ASTUDY ON MECHANICAL, DURABILITY AND ENVIRONMENTAL PROPERTIES	JUNE 2025
44	232ST030	PEDDA NAGAPPAGARI APARNA	DEVELOPMENT AND OPTIMIZATION OF A SUSTAINABLE CORBONATE BINDER FOR CONSTUCTION APPLICATIONS	JUNE 2025
43	232ST012	CHIRAG D NANKANI	PERFOMANCE ANALYSIS OF CEMENT-BLENDED SYSTEM AS MULTIFUNCTIONAL MATERIAL FOR BATTAERY APPLICATIONS	JUNE 2025
42	222ST025	RAJAT SEMWAL	SELF - HEALING MORTAR WITH BACILLUS SUBTILIS IMMOBILIZED BANANA FIBER	JUNE 2024
41	222CM006	A SAI TEJA	BACILLUS SUBTILIS IMMOBILIZED ARECA FIBRE MORTAR FOR ROBUST SELF HEALING	JUNE 2024
40	222CM058	TANMAY CHHABRA	FEASIBILITY STUDY OF PRECAST CONCRETE CONSTRUCTION IN HIGH RISE MASS HOUSING	JUNE 2024
39	222ST021	PMM MAJEED	EXPERIMENTAL INVESTIGATION ON THE PERFORMANCE OF BIOMORTAR PREPARED BY IMMOBILISATION OF BACILLUS SUBTILIS IN BAGASSE ASH	JUNE 2024
38	222ST037	S WALKE	PREDICTION OF PORE SOLUTION CONCENTRATION TO DETERMINE IONIC STRENGTH IN A CEMENT COMPOSITE SYSTEM: A MACHINE LEARNING APPROACH	JUNE 2024
37	222ST006	DP JAGATI	ADVANCING CARBON NEUTRALITY: FORMULATION OF IRON CARBONATE BINDER CUBE	JUNE 2024
36	222ST004	D PANDEY	EVALUATION OF MECHANICAL STRENGTH AND DURABILITY OF HEMP FIBER - REINFORCED BACTERIAL MORTAR	JUNE 2024
35	222ST002	A CHOUKSEY	CRAFTING SUSTAINABILITY: OPTIMIZING OXALIC ACID IN IRON CARBONATE BINDER FORMULATION WITH WASTE TRON POWDER FOR A CARBON - NEGATIVE IMPACT	JUNE 2024

34	212ST023	MOHAMED SHAHABAS	PERFORMANCE EVALUATION OF BIO – MORTER PREPARED BY SPORE FORMING BACTERIA EMBEDDED IN ALGINATE BEADS	JUNE 2023
33	212CM026	NALLA RAKESH KUMAR	CHARACTERIZATION OF PORE SOLUTION FOR THE DEVELOPMENT OF CEMENT-BASED BATTERY SYSTEM	JUNE 2023
32	212CM058	VASUDHA M	INFLUENCE OF CENOSPHERE ON THE PROPERTIES OF CEMENT MORTAR UNDER DIFFERENT PERCENTAGE REPLACEMENTS	JUNE 2023
31	212CM061	VINAY PANWAR	ESTIMATION OF EMBODIED CARBON OF BUILDING MATERIALS	JUNE 2023
30	212ST036	VISHWANATH HONAWADE	EXPERIMENTAL EVALUATION OF CRACK HEALING CAPACITY BY BACTERIAL SPORE ENCAPSULATED EXPANDED CLAY IN BIO MORTAR	JUNE 2023
29	212CM028	NAVANEETH KRISHNAN V V	STUDY OF MICROBIALLY INDUCED CALCITE PRECIPITATE POLYMORPHS IN CEMENT MATRIX	JUNE 2023
28	212ST002	ABHIRAM H C	COMPARATIVE STUDY ON PREDICTION OF INTERFACIAL BOND STRENGTH OF FRP WITH CONCRETE USING MACHINE LEARNING METHODS	JUNE 2023
27	202ST003	AMBATI VAMSI	SEISMIC ANALYSIS OF A PSC I GIRDER BRIDGE USING NONLINEAR STATIC METHOD	JUNE 2022
26	202ST019	NITESH NETAM	PREDICATION OF COMPRESSIVE STRENGTH AND WORKABILITY CHARACTERISTICS OF SELF – COMPACTING CONCRETE CONTAINING FLY ASH USING ARTIFICIAL NEURAL NETWORK	JUNE 2022
25	202ST011	GONTUPULU GU SUMESH MANOHAR	PREDICTING THE AXIAL LOAD CARRING CAPACITY OF COLUMNS REINFORCED WITH GFRP REBARS USING ANN MODELING	JUNE 2022
24	202ST022	BANOTH PRAVEEN KUMAR	NON - LINEAR STATIC ANALYSIS OF PRESTRESSED CONCRETE BRIDGE	JUNE 2022
23	202CM004	AKSHAY J P	EXPERIMENTAL STUDY ON DURABILITY AND MECHANICAL PROPERTIES OF LIGHTWEIGHT MORTAR WITH ENCAPSULATED SPORE FORMING BACTERIA	JUNE 2022
22	192ST002	AMAR BALBHEEM M	BEHAVIOUR OF STRUCTURES UNDER AXIALLY VARYING LOADS USING SHEAR AND NORMAL DEFORMATION THEORY AND RITZ	JUNE 2021

			METHOD	
21	192ST019	NAIKELE RUSHABH GANESH	STUDY ON BEHAVIOR OF EXTERNALLY BONDED RC RECTANGULAR BEAMS USING BFRP SHEETS	JUNE 2021
20	192ST028	VUNDELA VENKATASATISH REDDY	STUDY ON BEHAVIOR OF EXTERNALLY BONDED RC RECTANGULAR BEAMS USING CFRP SHEETS	JUNE 2021
19	182ST005	ASHWANI KUMAR	REINFORCED CONCRETE RECTANGULAR BEAM BY USING FIBRE REINFORCED POLYMER REBAR	JUNE 2020
18	182ST020	RAJAT THAPLIYAL	STRENGTHENING OF REINFORCED CONCRETE RECTANGULAR BEAM BY USING BASALT FIBER REINFORCED POLYMER SHEETS	JUNE 2020
17	182ST010	DAVULURI PREMA KUMAR	STRENGTHENING OF REINFORCED CONCRETE RECTANGULAR BEAM BY USING CARBON FIBER REINFORCED POLYMER SHEETS	JUNE 2020
16	182ST014	KEERTHI V T	STRENGTHENING OF RC RECTANGULAR BEAM BY USING GLASS FIBER REINFORCED POLYMER SHEETS	MAY 2020
15	172ST027	YARRABOTHULA ASHOK	FINITE ELEMENT MODELING AND ANALYSIS OF RC JOINT IN ABAQUS BY STRENGTHENING WITH POLYPROPYLINE FIBER UNDER SEISMIC LADING	MAY 2019
14	172ST005	HARITHA A	FEA FOR SHEAR STRENGTHENING OF BEAM - COLUMN JOINT UNDER CYCLIC LOADING BY INNOVATIVE MATERIAL	MAY 2019
13	172ST004	HARISH P PATIL	FINITE ELEMENT MODELLING APPROACH FOR RC BEAM - COLUMN JOINTS STRENGTHENED BY GLASS FIBRE UNDER CYCLIC LOADING	MAY 2019
12	1438011	SATHEESHKUMAR P	STRUCTURAL BEHAVIOUR OF GEOPOLYMER AGGREGATE CONCRETE IN BEAM-COLUMN JOINT	MAY 2016
11	1438012	SATHYAPRASANTH V	STRUCTURAL BEHAVIOR OF GEOPOPLYMER CONCRETE FRAME BY CYCLIC LOADING	MAY 2016

10	1338012	SHANKAR A	A STUDY ON CONCRETE USING ARTIFICIAL AGGREGATES	MAY 2015
9	1238001	AJMAL MUHAMMED	EXPERIMENTAL WORK ON MANUFACTURING OF ARTIFICAL AGGREGATED USING GEOPOLYMER TECHNIQUE	JUNE 2014
8	731511413005	JEEVAKKUMAR R	STUDY ON GEOPOLYMER COATINGS FOR EVALUATION OF CORROSION PROTECTION OF STEEL REINFORCEMENT IN R.C.C STRUCTURES	JULY 2013
7	731511413010	PRAVEEN KUMAR S	EXPERIMENTAL STUDY ON PRODUCTION OF ALKALINE ACTIVATED ARTIFICIAL AGGREGATE	JULY 2013
6	731511413011	RAJA D	EXPERIMENTAL STUDY ON STRUCTURAL BEHAVIOUR OF BEAM COLUMN JOINT USING GEOPOLYMER CONCRETE	JULY 2013
5	731511413015	SUMATHI S	STRUCTURAL BEHAVIOUR OF BEAM-COLUMN JOINT WITH BASALT FIBER REINFORCED CONCRETE	JULY 2013
4	101038605004	CYRIL THOMAS A	INVESTIGATION ON DYNAMIC BEHAVIOUR OF CASTELLATED BEAMS	JULY 2012
3	101038605009	GOERI SHANKAR K	STUDY AND CHARACTERISATION OF FOAM CONCRETE	JULY 2012
2	101038605012	PRABU B	STRUCTURAL BEHAVIOUR OF DI-BLENDED FIBER REINFORCED CONCRETE SLAB PANEL	JULY 2012
1	091038605007	GUNASEKARAN M	EXPERIMENTAL STUDIES ON COATING EFFECT OF NANO - SILICA FOR CORROSION REBARS	JUNE 2011

17. Major Testing and Consultancy work

1. *"Audit of Structural Stability of Airport Building at Shivamogga Airport,"* undertaken for the Karnataka State Industrial & Infrastructure Development Corporation (KSIIDC), Government of Karnataka, in the year 2024. The consultancy project, with a total value of ₹5.90 lakhs, involved detailed structural assessment and evaluation of the airport building to ensure safety, serviceability, and compliance with relevant standards.

2. *Third Party Technical Inspection (TPTI) for Three Construction Projects at the Indian Naval Academy (INA) Campus, Ezhimala,"* located in Kannur, Kerala, India. This Government-funded project, executed in 2024 with a total cost of ₹100.00 lakhs, involved independent technical inspection, quality assurance, and compliance verification of ongoing construction works within the academy premises.
3. Principal Investigator for a consultancy project undertaken for Mangaluru International Airport Limited (Adani Mangaluru International Airport Limited), located at Bajpe Main Road, Kenjar, Dakshina Kannada, Karnataka. The project, carried out in 2024 with a total value of ₹4.86 lakhs, involved structural evaluation and technical assessment of airport infrastructure to ensure safety, performance, and compliance with applicable standards.
4. Principal Investigator for a consultancy project for TRV (Kerala) International Airport Limited, Thiruvananthapuram, Kerala. The project was associated with the Administrative Building of Thiruvananthapuram International Airport, located at Shangumugham, Vallakadavu P.O., Thiruvananthapuram. Executed in 2024 with a total cost of ₹13.00 lakhs, the work focused on structural inspection, technical evaluation, and quality assessment to ensure the integrity and safety of the infrastructure.
5. Principal Investigator and Coordinator for the project titled "Construction of New ATC Tower-cum-Technical Block including Repair & Maintenance, Operation, and AICMS at Madurai International Airport, Tamil Nadu, India." This Government-funded project was carried out in 2024 with a duration of 6 months and a total project value of ₹2.53 lakhs. The work involved technical evaluation, coordination, and oversight of construction, maintenance, and operational aspects to ensure structural safety, functionality, and compliance with aviation infrastructure standards.

18. Books / Chapters Published & E-learning materials Developed

18.1. International Publications in the form of Book Chapters

[07] Swapnil, B., **& Palanisamy, T.** (2022, June). Intelligent modeling for shear strength of RC exterior beam-column joint subjected to seismic loading. In *International conference on structural engineering and construction management* (pp. 39-53). Cham: Springer International Publishing.

[06] Netam, N., **& Palanisamy, T.** (2022, June). Prediction of compressive strength and workability characteristics of self-compacting concrete containing fly ash using

artificial neural network. In *International Conference on Structural Engineering and Construction Management* (pp. 55-65). Cham: Springer International Publishing.

[05] Vamsi, A., Baby, B., **& Palanisamy, T.** (2022, June). Seismic Analysis of a PSC I Girder Bridge Using Nonlinear Static Method. In *International Conference on Structural Engineering and Construction Management* (pp. 67-80). Cham: Springer International Publishing.

[04] Sumesh Manohar, G., **& Palanisamy, T. (**2022, June). Predicting the Axial Load Carrying Capacity of Columns Reinforced with GFRP Rebars Using ANN Modelling. In *International Conference on Structural Engineering and Construction Management* (pp. 103-113). Cham: Springer International Publishing.

[03] Baby, B., **Palanisamy, T**., & Arjun, S. (2022, June). Review of various microbial immobilization methods towards self-healing application. In *International Conference on Structural Engineering and Construction Management* (pp. 587-597). Cham: Springer International Publishing.

[02] Palanisamy, T., Shakya, R., Nalla, S., & Prakhya, S. S. (2022, June). Crack Detection in Concrete Using Artificial Neural Networks. In *International Conference on Structural Engineering and Construction Management* (pp. 877-885). Cham: Springer International Publishing.

[01] Akshay, J. P., Baby, B., & **Palanisamy, T. (**2022, June). Experimental study on durability and mechanical properties of lightweight mortar with encapsulated spore forming bacteria. In *International conference on structural engineering and construction management* (pp. 1185-1197). Cham: Springer International Publishing.

18.2. International Publications in the form of Books

S.No.	Title of the Book	Name of the Author(s)	Published By
1	Proceedings of International Conference on Civil, Structural and Environmental Engineering Proceedings	Dr. N. Rengarajan Dr. V. Revathi **Dr.T, Palanisamy**	Excel India Publishers, NewDelhi.b(ISBN : 978-93-80697-63-5)
2	Proceedings of Sustainable Practices and Innovations in Civil Engineering	Sivakumar Naganathan Kamal Nasharuddin Mustapha **Dr.T, Palanisamy**	Springer, Springer Nature Singapore ISBN: 978-981-16-5040-6

18.3. International Book Chapter Edited

S.No.	Title of the Book	Name of the Author(s)	Published By	No of Chapters Edited	Chapters Edited

1	Proceedings of International Conference on Civil, Structural and Environmental Engineering Proceedings	Dr. N. Rengarajan Dr. V. Revathi **Dr. T Palanisamy**	Excel India Publishers, New Delhi. **(ISBN : 978-93-80697-63-5)**	05	• Advances in Concrete Technology. • Composite Structures. • Sesmic Behaviour of Structures. • Fibre Reinforced and Polymer Concrete. • Analysis and Design of Reinforced Concrete. • Civil and Structural Engineering
2	Proceedings of the International Conference on Civil and Structural Engineering (ICIET 17)	Dr Siti Zaiton Dr M A Akour Dr Madalina Calbureanu Dr Reza Sirjani Dr S Poonkuzhali **Dr T Palanismy**	Canadian Arena of Applied Scientific Reasrch Ltd.Canada.	02	

19. Professional Training Received / Summer / Winter Schools attended

S.No	Year	Nature of Training	Duration	Organization where training was provided
28	30.01.2020 to 31.01.2020	National Conference on Civil Engineering " New and Effective Innovations, Technologies and Key Challenges 2020"	02 Days	Dept. of Civil Engineering, NITK Surathkal
27	11.02.2020 to 15.02.2020	STTP on "Latest Trends in structural and Construction Technology"	05 Days	NITK Surathkal
26	18.11.2019 to 22.11.2019	TEQIP III sponsored One-Week Faculty Development Programm on "Fiber Reinforced Concrete and it's Applications"	05 Days	NITK Surathkal
25	29.07.2019 to 02.08.2019	GIAN, Design of Concrete Structures Reinforced with Fiber Reinforced Polymer (FRP) bars,	07 Days	GIAN, NITK
24	28.12.2019	One – Day Workshop on "Structural Design of Buildings Systems"	One Day	IIT Madras, Chennai.
23	10.09.2018 to 14.09.2018	GIAN, Five days advance level course on "Whole Life Management of Concrete Structures – Theory to Practice"	05 Days	GIAN, NITK
22	27.09.2017	One day National level Seminar on "Advancement in Concrete Technology – ACT – 2017)	One Day	I.K. Gujral Punjab Technical University, Punjab State.
21	22.03.2017	National Workshop on "Advances testing methods for Concrete"	One Day	K.S.R College of Engineering, Tiruchengode

20	16.03.2017	TEQIP – II Sponsored workshop on "Advances in Stress Analysis & Dynamics"	2 Days	NIT Karnataka. India.
19	01.03.2017	National Workshop on Characterization of Cement Concrete (C3 – 17)	One Day	Mahendra Engineering College, Namakkal.
18	10.02.2017 to 11.02.2017	National Level Seminar on Soft Computing Techniques.	2 Days	K.S.R College of Engineering, Tiruchengode
17	05.08.2016 to 06.08.2016	1st Workshop on Corrosion Control in Concrete Structures (C3S)	2 Days	IIT Madras, Chennai
16	26.04.2016	One day workshop on Intellectual Property Rights 2016	One Day	Center for Intellectual Property Rights – 2016. Anna University, Chennai.
15	23.11.2015 to 27.11.2015	Short Term Course under Quality Improvements program on "Recent Developments in Construction Technology"	5 Days	Dept. of Civil Engineering, Pondicherry Engineering College, Puducherry
14	18.09.2015	DRDO Sponsored national Seminar on "Characterization of Multifunctional Materials for Engineering Applications"	One Day	Dept. of Civil Engineering, Mahendra Engineering College, Mallasamudharam, Namakkal
13	18.09.2015	DRDO – Sponsored National Seminar on Characterization of Multifunctional materials for Engineering applications (MULTIMAT – 2015)	One day	Department of Civil Engineering, Mahendra Engineering College, Namakkal.
12	14.08.2015	UGC Sponsored - One day national level Workshop on Recent Advances in Construction Techniques	One day	Department of Civil Engineering, Coimbatore Institute of Technology, Coimbatore
11	20.03.2015	National Level workshop on "Blooms Taxonomy and its Assessments	One day	K.S.R College of Engineering, Tiruchengode
10	19.08.2015 to 20.08.2015	International level workshop on "Journal paper writing and preparation of winner research proposal"	2 days	K.S.R College of Engineering, Tiruchengode
9	28.02.2015	One day Workshop on "Microstructural Characterization of Structural Concrete"	One Day	Department of Civil Engineering, PSG College of Technology, Coimbatore.
8	23.01.2015 to 24.01.2015	Two days short course on "Introduction of Finite Element Methods and its Applications"	2 days	Department of Civil Engineering, National Institute of Technology, Tiruchirapalli.

7	10.05.2013 to 24.05.2013	Two weeks AICTE Sponsored Faculty Development Program on "Disaster Management", Organized by, K.S.R College of Engineering, Tiruchengode, from 10.05.2013 to 24.05.2013	2 Weeks	K.S.R College of Engineering, Tiruchengode,
6	10.05.2013 to 24.05.2013	Two weeks AICTE Sponsored Faculty Development Program on "Disaster Management", Organized by, K.S.R College of Engineering, Tiruchengode, from 10.05.2013 to 24.05.2013	2 Weeks	K.S.R College of Engineering, Tiruchengode,
5	06.09.2013	One Day National Seminar on "Application of Geographic Information System and Remote Sensing for Environmental Science	One day	Department of Civil engineering, K.S.R College of Engineering, Tiruchengode
4	05.08.2013 to 06.08.2013	International Workshop on Construction & Demolition (C&D) Waste Recycling	2 Days	ICI, CPWD & IIT Madras, Chennai.
3	20.05.2012 to 02.06.2012	Two Weeks AICTE sponsored Staff Development Program on "Waste to Energy"	2 Weeks	K.S.R College of Engineering, Tiruchengode
2	22.08.2012 to 24.08.2012	DRDO Sponsored three Days Workshop on "Systematic Technology Transfer for Sustainable Materials and Structures" (ST2SMS – 2012) organized by K.S.R College of Engineering, Tiruchengode, on 22nd and 24th August 2012.	3 days	Department of Civil Engineering, KSR College of Engineering
1	05.11.2012	CSIR Sponsored One Day National Seminar on Advancement in Concrete Technology" (NACT – 2012), K.S.R College of Engineering, Tiruchengode, India.	One day	Department of Civil Engineering, K.S.R College of Engineering, Tiruchengode

20. Conferences / Seminars / Workshops attended

20.1. International

S.NO	Year	Conferences / Seminars /Workshops attended	Title of paper presented
47	04.06.2025 to	International conference on structural engineering and construction management	Optimizing CO2 Curing for Sustainable Construction: Pressure Effects on Carbonation

	06.06.2025	SECON'25	Kinetics and Compressive Strength of Iron Carbonate Binder
46	04.06.2025 to 06.06.2025	International conference on structural engineering and construction management SECON'25	Evaluating the Environmental Impact of Iron Carbonate Binder as a Carbon-Negative Alternative to Ordinary Portland Cement: A Life Cycle Assessment Study
45	04.06.2025 to 06.06.2025	International conference on structural engineering and construction management SECON'25	Electrochemical Parametric Study of Cement Based Energy Device Using Fibers as Contacts
44	04.06.2025 to 06.06.2025	International conference on structural engineering and construction management SECON'25	Maximizing Output Through Process Optimization in Batching Plant Production
43	04.06.2025 to 06.06.2025	International conference on structural engineering and construction management SECON'25	Innovative Approaches to Self-healing Concrete: A Review on Microbial Loading and Immobilization Techniques
42	15.12.2024 to 17.12.2024	International Conference on Recent Advances in Structural Engineering	Impact of Hemp Fiber on Mechanical and Durability Characteristics of Bacterial-Based Cement Mortar
41	14.11.2024 to 15.11.2024	First International Conference for Women in Computing	Improving Structural Safety with Machine Learning: Shear Strength Prediction in Interior Beam-Column Joints
40	19.07.2024 to 20.07.2024	International Conference on Transportation System Engineering and Management	Strength and Durability Characteristics of Light Weight Concrete Mixes
39	05.06.2024 to 07.06.2024	International conference on structural engineering and construction management SECON'24	Bacillus Subtilis Immobilised Areca Fibre Mortar for Robust Self-healing
38	05.06.2024 to 07.06.2024	International conference on structural engineering and construction management SECON'24	Advancing Carbon Neutrality: Formulation and Microstructural Analysis of Iron Carbonate Binder with Normal and Saline Water
37	05.06.2024 to 07.06.2024	International conference on structural engineering and construction management SECON'24	Crafting Sustainability: Optimizing Oxalic Acid in Iron Carbonate Binder Formulation with Waste Iron Powder for a Carbon-Negative Impact.
36	05.06.2024 to 07.06.2024	International conference on structural engineering and construction management SECON'24	Prediction of Pore Solution Concentration in Cement Composite System by Using Machine Learning Techniques
35	05.06.2024 to 07.06.2024	International conference on structural engineering and construction management SECON'24	Examining the Effect of Diverse Calcium Sources on Cement Mortar Using Bacillus Subtilis Through MICP: A Preliminary

			Investigation
34	05.06.2024 to 07.06.2024	International conference on structural engineering and construction management SECON'24	Optimization of Cement Mortar Performance Through Bagasse Ash as a Sustainable Supplementary Material
33	07.06.2023 to 09.06.2023	Technologies for Sustainable Buildings and Infrastructure. SIIOC 2023, Lecture Notes in Civil Engineering	Adaptive Neuro-Fuzzy Systems and Ensemble Methods in Joint Shear Prediction and Sensitivity Analysis
32	23.04.2023 to 24.04.2023	Technologies for Sustainable Buildings and Infrastructure. SIIOC 2023, Lecture Notes in Civil Engineering	Comparative Study on Prediction of Interfacial Bond Strength of FRP with Concrete Using Machine Learning Methods.
31	23.04.2023 to 24.04.2023	Technologies for Sustainable Buildings and Infrastructure. SIIOC 2023, Lecture Notes in Civil Engineering	Assessment of Ionic Composition of Fresh Cement Blends System with Addition of SCMs and Conductive Materials
30	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON – 23)	Experimental Study on Durability and Mechanical Properties of Lightweight Mortar with Encapsulated Spore Forming Bacteria
29	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON – 23)	Seismic Analysis of a PSC I Girder Bridge Using Nonlinear Static Method
28	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON – 23)	Crack Detection in Concrete Using Artificial Neural Networks
27	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON – 23)	Prediction of Compressive Strength and Workability Characteristics of Self-compacting Concrete Containing Fly Ash Using Artificial Neural Network
26	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON – 23)	Review of Various Microbial Immobilization Methods Towards Self-healing Application
25	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON – 23)	Predicting the Axial Load Carrying Capacity of Columns Reinforced with GFRP Rebars Using ANN Modelling
24	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON – 23)	Intelligent Modeling for Shear Strength of RC Exterior Beam-Column Joint Subjected to Seismic Loading
23	07.06.2023 to 09.06.2023	International Conference on Structural Engineering and Construction Management (SECON	Numerical Modeling on Buckling Behavior of Structural Stiffened Panel

		– 23)	
22	01.06.2022 to 03.06.2022	International Conference on Structural Engineering and Construction Management (SECON – 22)	Experimental Study on Durability and Mechanical Properties of Lightweight Mortar with Encapsulated Spore Forming Bacteria
21	01.06.2022 to 03.06.2022	International Conference on Structural Engineering and Construction Management (SECON – 22)	Review of Various Microbial Immobilization Methods Towards Self-Healing Application
20	01.06.2022 to 03.06.2022	International Conference on Structural Engineering and Construction Management (SECON – 22)	Crack Detection in Concrete Using Artificial Neural Networks
19	01.06.2022 to 03.06.2022	International Conference on Structural Engineering and Construction Management (SECON – 22)	Prediction of Compressive Strength and Workability Characteristics of Self-Compacting Concrete Containing Fly Ash Using Artificial Neural Network
18	01.06.2022 to 03.06.2022	International Conference on Structural Engineering and Construction Management (SECON – 22)	Predicting The Axial Load Carrying Capacity of Columns Reinforced With GFRP Rebars Using ANN Modelling
17	01.06.2022 to 03.06.2022	International Conference on Structural Engineering and Construction Management (SECON – 22)	Intelligent Modeling for Shear Strength of RC Exterior Beam-Column Joint Subjected to Seismic Loading
16	2021	CIGOS 2021, Emerging Technologies and Applications for Green Infrastructure	ANN Model for Joint Shear Strength of RC Interior Beam-Column Joint
15	25.01.2017 to 26.01.2017	International Conference on Civil and Structural Engineering (ICIET – 17),	Influence of Strengthened Infilled wall in RC framed structure
14	25.01.207 to 26.01.2017	International Conference on Civil and Structural Engineering (ICIET – 17),	Structural Behaviour of Beam – Column joint with Basalt fiber Reinforced concrete
13	25.01.207 to 26.01.2017	International Conference on Civil and Structural Engineering (ICIET – 17),	Corrosion study on Fly ash based Geopolymer concrete with partial replacement of fly ash by paper sludge using impressed voltage method
12	05.05.2016 to 06.05.2016	International Conference on Innovative Engineering and Technologies (ICIET – 16), Organized by CAASR Publishers held at Univetsiti Kebansaan Malaysia, Kuala Lumpur, Malaysia,	Study on Behavior of Geopolymer Beam – Column Joint

11	05.05.2016 to 06.05.2016	International Conference on Civil and Structural Engineering (ICCSE–16), Organized by CAASR Publishers held at University Kebansaan Malaysia, Kuala Lumpur, Malaysia,	Study on Effect of Proximity of Interfacing Building on Pressure and Velocity
10	01.03.2016 to 04.03.2016	International Conference on Materials Science & Technology at Conference Center, University of Delhi, New Delhi, India.	Experimental study on Manufacturing of Artificial Aggregate using Geo polymer Technique in Concrete.
9	06.05.2014 to 07.05.2014	8th International Conference on "Science, Engineering and Technology (SET)	Study on Mechanical Properties and Structural Behavior of Recron Fiber Reinforced Concrete Members
8	18.02.2011 to 19.02.2011	International Conference on Civil, Structural and Environmental Engineering	Experimental Study on R.C. Framed with Infilled Wall under Static Loading
7	18.02.2011 to 19.02.2011	International Conference on Civil, Structural and Environmental Engineering	Wastewater Treatment by Natural Coagulants – a Review.
6	18.02.2011 to 19.02.2011	International Conference on Civil, Structural and Environmental Engineering	Corrosion Propagation Study on High Performance Concrete Specimens with, In – Situ Experimental Evaluation Technique.
5	18.02.2011 to 19.02.2011	International Conference on Civil, Structural and Environmental Engineering	Guidelines for Reconstruction of Building with Multi Hazard- a Review.
4	18.02.2011 to 19.02.2011	International Conference on Civil, Structural and Environmental Engineering	A State of Art Report on Behaviour of Shear wall for Static and Dynamic Loads using FEA.
3	15.05.2008 to 17.05.2008	International Conference on Innovations in Building Materials, Structural Designs and Construction Practices	An Experimental Study on Tensile and Flexural Strength of High Performance Concrete with Partial Replacement of Cement by Silica Fume and GGBS.
2	30.08.2007 to 01.09.2007	International Conference on Recent Developments in Structural Engineering	An experimental study on Crack Initiation and Rehabilitation of Channel Section with Welding
1	30.08.2007 to 01.09.2007	International Conference on Recent Developments in Structural Engineering	Corrosion effect of High-Performance Concrete with Partial Replacement of Cement by Silica Fume and GGBS.

20.2. National Level

S.No	Year	Conferences / Seminars /Workshops attended	Title of paper presented
31	17.12.2021 to 18.12.2021	1st National Conference on Sustainable Materials and Smart Practices, NCSMSP 2021, Materials Research Proceedings,	Experimental Analysis of Glass Fibre in Concrete
30	17.12.2021 to 18.12.2021	1st National Conference on Sustainable Materials and Smart Practices, NCSMSP 2021, Materials Research Proceedings,	Evaluation of Mechanical Properties on Light Weight Concrete by using Silica Fume with M-Sand
29	17.12.2021 to 18.12.2021	1st National Conference on Sustainable Materials and Smart Practices, NCSMSP 2021, Materials Research Proceedings,	Mechanical Properties of Fiber Reinforced Concrete by using Sisal Fiber with M-Sand as Fine Aggregate
28	09.03.2017	Second National Conference on Modern & Emerging Trends in Infrastructure Development for Sustainability, Organized by Dept. of Civil Engineering, Mahindra Engineering College, Namakkal. On 09.03.2017	A Novel Concrete Made with Waste Papers
27	09.03.2017	Second National Conference on Modern & Emerging Trends in Infrastructure Development for Sustainability, Organized by Dept. of Civil Engineering, Mahindra Engineering College, Namakkal. On 09.03.2017	Role of Polyethylene Therephthalate in bricks
26	09.03.2017	Second National Conference on Modern & Emerging Trends in Infrastructure Development for Sustainability, Organized by Dept. of Civil Engineering, Mahindra Engineering College, Namakkal. On 09.03.2017	Open-Source Software for computational fluid dynamics
25	09.03.2017	Second National Conference on Modern & Emerging Trends in Infrastructure Development for Sustainability, Organized by Dept. of Civil Engineering, Mahindra Engineering College, Namakkal. On 09.03.2017	Persuade of Fly ash and Bagasse ash on the Mechanical Characteristics of light weight concrete
24	09.03.2017	Second National Conference on Modern & Emerging Trends in Infrastructure Development for Sustainability, Organized by Dept. of Civil Engineering, Mahindra Engineering College, Namakkal. On 09.03.2017	Fly ash artificial Coarse Aggregate (FACA) for Sustainable Eco – Friendly Concrete.
23	11.03.2016	NABARD Sponsored national Conference on “Innovative Research in Biotechnology and Engineering for	Innovative Manufacturing Techniques of I – Bricks.

		Public Health (IRBEP – 2016)	
22	31.03.2016	National Conference on "Design, Materials, Manufacturing and Construction Technologies" at NSN Engineering College, Karur.	A Study on Pond and Fly ash an Opportunity for sustainable and Economical Brick
21	21.04.2016	Fourth National Conference on "T r e n d y and Sustainable Development in Civil Engineering" at KSR College of Engineering, Organized by Department of Civil Engineering.	Experimental Investigation on Engineered Cementitious Composites Using Polypropylene Fiber
20	21.04.2016	Fourth National Conference on "T r e n d y and Sustainable Development in Civil Engineering" at KSR College of Engineering, Organized by Department of Civil Engineering.	Feasibility of Using waste Glass Powder in Fly Ash Bricks
19	21.04.2016	Fourth National Conference on "T r e n d y and Sustainable Development in Civil Engineering" at KSR College of Engineering, Organized by Department of Civil Engineering.	Experimental Study on Structural Behavior of Low-Cost Light Weight Slab panel for roofing
18	21.04.2016	Fourth National Conference on "T r e n d y and Sustainable Development in Civil Engineering" at KSR College of Engineering, Organized by Department of Civil Engineering.	Structural Behavior of Geopolymer Aggregate Concrete in Beam – Column Joint
17	21.04.2016	Fourth National Conference on "T r e n d y and Sustainable Development in Civil Engineering" at KSR College of Engineering, Organized by Department of Civil Engineering.	A Review on Geopolymer Concrete Frame
16	08.04.2015	National Conference on Advancements in Structural Environmental & Geotechnical Engineering for Sustainable Development.	Effects of Workability in Light weight concrete using mineral Admixtures.
15	21.03.2014	National Level conference on recent and advanced trends in Civil Engineering	Experimental Study on Manufacturing of artificial Aggregate using Geopolymer
14	03.05.2014	National Level conference on Trendy and sustainable development in Civil Engineering	Study on Geopolymer Coatings for evaluation of corrosion protection of steel reinforcements in RCC structures.
13	18.04.2013 to 19.04.2013	National Conference on "Trendy and Sustainable Development in Civil Engineering" (NCTSDCE'13)	Experimental investigation of Polyvinyl Alcohol Fiber in Mortar

12	18.04.2013 to 19.04.2013	National Conference on "Trendy and Sustainable Development in Civil Engineering" (NCTSDCE'13)	Strength characteristics of Recron Fiber Reinforced Concrete using NDT
11	18.04.2013 to 19.04.2013	National Conference on "Trendy and Sustainable Development in Civil Engineering" (NCTSDCE'14)	Corrosion Propagation Study on High Performance Concrete Specimens with, In– Situ Experimental Evaluation
10	18.04.2013 to 19.04.2013	National Conference on "Trendy and Sustainable Development in Civil Engineering" (NCTSDCE'14)	Performance of Waste Glass Powder in Concrete
9	18.04.2013 to 19.04.2013	National Conference on "Trendy and Sustainable Development in Civil Engineering" (NCTSDCE'14)	Hybrid Fiber Reinforced Concrete- A Review
8	18.04.2013 to 19.04.2013	National Conference on "Trendy and Sustainable Development in Civil Engineering" (NCTSDCE'14)	Basalt Fiber Reinforced Concrete- a Review
7	19.04.2012 to 20.04.2012	National Conference on Advances in Concrete and Construction Technology	Investigation on Dynamic Behavior of Castellated Beam
6	19.04.2012 to 20.04.2012	National Conference on Advances in Concrete and Construction Technology	Effect of Mechanical Properties on Polyester Fibers in Concrete Composites
5	19.04.2012 to 20.04.2012	National Conference on Advances in Concrete and Construction Technology	Experimental investigation of Hybrid Fiber in Concrete
4	19.04.2012 to 20.04.2012	National Conference on Advances in Concrete and Construction Technology	Estimation of Dynamic Forces on the Structures with Multi Hazard
3	19.04.2012 to 20.04.2012	National Conference on Advances in Concrete and Construction Technology	Strength Development of Natural Fiber Reinforced Concrete Composites
2	19.04.2012 to 20.04.2012	National Conference on Advances in Concrete and Construction Technology	Performance Evaluation of Polypropylene Fiber in Cementitious Composites
1	19.04.2012 to 20.04.2012	National Conference on Advances in Concrete and Construction Technology	Study and Characterization of Foam Concrete

21. Industrial Experience / Interaction

Organization	Nature of work	Period
Design wise, Engineers & Architects, Perundurai.	Project Engineer	01.06.2002 to 24.11.2002
Design wise, Engineers & Architects, Perundurai.	Site Engineer	28.04.2000 to 31.12.2000

22. Continuing Education Programs /Short Term Courses/Workshops/Seminars

etc. organized:

S.NO	Title of Program	Period	Funding Agency
20	Industry Sponsored One-day Workshop and Hands-on Training on Design of Anchorage and Connections in collaboration with Hilti (India) Pvt. Ltd. and NITK. Date: 05th March, 2026	05.03.2026	Hilti (India) Pvt. Ltd
19	5days Training program on “Structural Integrity & Corrosion Management for RCC & Steel Structures" for industry. Hindalco, Aditya Birla, Hindalco Plant Renukoot Renukoot, Uttar Pradesh · 05446 252 079	28.07.2025 to 31.07.2025	Hindalco, Aditya Birla,
18	One-day Workshop on Non - Destructive Testing and Evaluation of Structures (NTES – 2025), NITK and In Association with: The Institution of Engineers (India) (Mangalore Local Center).	16.05.2025	NITK, ICI
17	Advanced Non-Destructive Testing Methods for Concrete Structures Evaluation	25.02.2025	NITK
16	Case Studies in Structural Repair, Corrosion Mitigation and Retrofitting of RCC Structures	20.08.2025	NITK
15	Two Days Workshop on Non- Destructive Testing Techniques and repair Material Characterization NRMC – 22 organized by Dept. of Civil Engineering, National Institute of Technology Karnataka, Surathkal.	03.11.2022 to 04.11.2022	DEST-SERB (SSR Scheme)
14	One Week International Workshop on Durability of Concrete (IWODOC – 2020) Date: 26thOct – 30th Oct, 2020, Sponsored by ICI, ICJ, ISTE Mangalore Local center, Dept. of civil Engg, NITK	26.10.2020 to 30.10.2020	NITK
13	STTP on “Latest Trends in Structural and Construction Technology”	11.02.2020 to 15.02.2020	NITK
12	One-Week Faculty Development Programme on “Fiber Reinforced Concrete and it’s Applications” Sponsored by TEQIP, NITK	18.11.2019 to 22.11.2019	NITK
11	Expert Lecture on “Contemporary Challenges and Issues in Offshore Structures”	19.09.2019	NITK
10	Expert Lecture on “Electro-Chemical Techniques in Concrete Technology”	12.09.2019	NITK
9	Expert lecture on “Chloride Removal and Electro-Kinetics in Concrete”	28.05.2019	NITK
8	One day National Seminar on “Advancement in Concrete Technology “Organized by Department of Civil engineering, I.K.Gurjal Punjab Technical University, Punjab, India.	27.09.2017	IKGPTU
7	One day National Level workshop on “Advanced Testing Methods for Concrete” organized by K.S.R College of Engineering, Tiruchengode, on 22.03.2017.	22.03.2017	KSRCE
6	One Day Seminar “Patent Filing in India and Other Countries” organized by K.S.R College of Engineering, Tiruchengode, on 08.08.2016.	08.08.2016	KSRCE

5	Two Days international Level workshop on "Journal Paper writing and Preparation of winner research proposal" Office of the Controller of the Examinations, K.S.R College of Engineering, Tiruchengode.	19.08.2015 to 20.08.2015	KSRCE
4	One day National level workshop on "Blooms Taxonomy and Its Assessments" 9Organized by, Office of the Controller of the Examinations, K.S.R College of Engineering, Tiruchengode, on 20.03.2015	20.03.2015	KSRCE
3	Two weeks AICTE Sponsored Faculty Development Programmee on "Disaster 8Management", Organized by, K.S.R College of Engineering, Tiruchengode, from 10.05.2013 to 24.05.2013	10.05.2013 to 24.05.2013	AICTE, New Delhi
2	CSIR Sponsored One Day National Seminar on Advancement in Concrete 7Technology" (NACT – 2012), K.S.R College of Engineering, Tiruchengode, India. 5th November- 2012.	05.11.2012	CSIR, New Delhi
1	DRDO Sponsored three Days Workshop on "Systematic Technology Transfer for Sustainable Materials and Structures" (ST2SMS). organized by K.S.R College of Engineering, Tiruchengode.	22.08.2012 to 24.08.2021 .	DRDO, New Delhi

23. Experience in Administrative Positions, Curriculum and Lab Development, Student Welfare, Professional and Outreach Activities:

Sl. No.	Responsibility Held	Duration
24	Faculty-In-Charge - Institute Guest House	2022
23	Faculty-In-Charge - Estate & Works	2022
22	Block Warden – Hostel (First Block)	2021-2023
21	Faculty-In-Charge - Civil Engg., NBA - PG (Structural Engg..,)	2021-2023
20	Secretary - Civil Engg – DRPC	2021-2023
19	Faculty Advisor - Civil Engg (PG - Structural Engineering)	2020-2022
18	Coordinator-Civil Engg - Heavy Structural Engineering Lab	2020-2024
17	Dept. Civil Engg - diamond jubilee - committee member	2019
16	Civil Engg Dept - Alumni coordinator for PG	2019-2021
15	Civil Engg. Dept - Website updation coordinator	2018-2021
14	Furniture Purchase committee coordinator for department	2019-2021
13	Civil Engg Dept. First year Induction programme coordinator	2018-2020
12	Institute Level Committee Member - Civil Engg Dept. - Ring Presentation Ceremony coordinator	2020-2021

11	Institute Level Committee Member – Civil Engineering Dept. – First Year Admission	2019-2020
10	Time table committee member – Institute level	2019-2020
9	PI of Bio – Concrete Lab (Lab established by Dr. T. PALANISAMY)	2019 to Till Date
8	Structural Engineering Lab in Charge (NITK)	2018 to Till Date
7	Head of the Department of Architecture	13.07.2017 to 18.06.2018
6	Board of Studies Member (BoS) for Vivakanantha College of Engineering for Women	2013 – 2014 to 2015 - 2016
5	Board of Studies Member (BoS) for Anna University	2013 - 2014 to 2016 - 2017
4	Controller of Examinations (COE) for Autonomous System	25.11.2012 to 16.06.2017
3	Structural Engineering Lab in Charge	2009 to 16.06.2017
2	Doctoral Committee Member for Anna University	2009 to Till date
1	Class Committee Chair Person	2002 - 2009

24. Awards and Recognitions

S.No	Brief Achievements	Award by	Year
7	**"Vishwakarma Award–2018",** Construction Industry Development Council (CIDC), Planning Commission of India, New Delhi.	Planning Commission of India, New Delhi	2018
6	**"Shri P K Das memorial Best Faculty Award" in Civil Engineering**	Nehru Group of Institutions, Tamil Nadu & Kerala.	2016
5	**"Outstanding Young Concrete Engineer"** award in the files of Concrete technology.	Indian Concrete Institute, India & Ultra Tech Cements.	2016
4	**"Dr. A.P.J. Abdul Kalam Gold Medal Award – 2015 for Engineering Education",** Universal Achievers Foundation, New Delhi. 15.10.2015	Universal Achievers Foundation, New Delhi	2015
3	**"Bharat Ratana Mother Teresa Gold Medal Award – 2014 for Education",** By Global Economic Progress & Research Association at Bangalore.	Global Economic Progress & Research Association, Bangalore	2014
2	**"Indra Priyadarshini Gold medal Award 2015**	Global Economic Progress & Research Association , Bangalore	2015
1	**"Bhart Shiksha Ratan Award"** by Global Society for Health & Educational, New Delhi. – 110051.	Global Society for Health & Educational, New Delhi. – 110051.	2014

25. Reviewer for National and International Journals

- International Journal of Silicon – Springer, ISSN: 1876-9918

- Structural Concrete: Journal of the fib
- Indian Concrete Journal (ICJ), ISSN: 0019-4565
- Iranian Journal of Science and Technology (Engineering), ISSN : 1028 - 6284.
- Indian Journal of Engineering & Materials Sciences, ISSN : 0971 - 4588.
- International Journal of Earth Science and Engineering, ISSN 0974-5904.

26. Documentation Skills

- An Editor in the Proceedings of "National Seminar on Awareness of Solid Waste Management" held at K.S.R. College of Engineering, Tiruchengode, Tamilnadu, India.
- An Editor in the Proceedings of "National Conference on Emerging Trends in Civil Engineering" held at K.S.R. College of Engineering, Tiruchengode, Tamilnadu, India.
- An Editor in the Proceedings of "AICTE Sponsored National Conference on Advancement in Concrete Technology" held at K.S.R. College of Engineering, Tiruchengode, Tamilnadu, India.
- An Editor in the Proceedings of "National Level Students Technical Symposium – LATTICE" held at K.S.R. College of Engineering, Tiruchengode, Tamilnadu, India.
- An Organizing chair and Editor in the Proceedings of "International Conference on Civil, Structural and Environmental Engineering" held at K.S.R. College of Engineering, Tiruchengode, Tamilnadu, India.
- An Editor in the Proceedings of "National Level One Day Workshop on Fundamentals of Ocean and Costal Engineering" held at K.S.R. College of Engineering, Tiruchengode, Tamilnadu, India.
- An Editor in the Proceedings of "Disaster Management" held at K.S.R. College of Engineering, Tiruchengode, Tamilnadu, India and Sponsered by AICTE, New Delhi.

27. Events Organized

S.No	EVENTS ORGANIZED	SPONSORED BY	Conference/ Symposia/Seminar/ Workshop
16	Two-day workshop on Non-Destructive Testing & Repair Material Characterization, NRMC-22 organized by the Department of Civil Engineering, National Institute of Technology Karnataka, Surathkal, India during 3rd - 4th November 2022. Funded by DST - SERB, New	DST – SERB New Delhi	National Workshop

	Delhi.		
15	One Week International Workshop on Durability of Concrete (IWODOC – 2020) Date: 26thOct – 30th Oct, 2020, Sponsored by ICI, ICJ, ISTE Mangalore Local center, Dept. of civil Engg, NITK	NITK	International Workshop
14	One-Week Faculty Development Programme on "Fiber Reinforced Concrete and it's Applications", NITK Surathkal, 18.11.2019-22.11.2019	TEQIP III	FDP
13	One day Seminar on "Advancement in Concrete Technology ACT – 2017" Organized by, I.K Gujaral Punjab Technical University, Dept. of Civil Engineering, Kapurthala, on 27.09.2017	I.K Gujral Punjab Technical University	Seminar
12	One day national level workshop on "Advanced testing methods for Concrete" Organized by, K.S.R College of Engineering, Tiruchengode, on 22.03.2017	KSRCE	Workshop
11	One Day National Seminar on "Patent Filing in India and other Countries" Organized by, K.S.R College of Engineering, Tiruchengode, on 08.08.2016	KSRCE	Seminar
10	Two days international workshop on "Journal Writing and Preparation of Winner Research Proposal" K.S.R College of Engineering, Tiruchengode, from 19.08.2016 to 20.08.2016.	KSRCE	International Workshop
9	One day National level workshop on "Blooms Taxonomy and Its Assessments" Organized by, Office of the Controller of the Examinations, K.S.R College of Engineering, Tiruchengode, on 20.03.2015	KSRCE	Workshop
8	Two weeks AICTE Sponsored Faculty Development Program on "Disaster Management", Organized by, K.S.R College of Engineering, Tiruchengode, from 10.05.2013 to 24.05.2013	AICTE, New Delhi	Faculty Development Program
7	CSIR Sponsored One Day National Seminar on Advancement in Concrete Technology" (NACT – 2012), K.S.R College of Engineering, Tiruchengode, India. 5th November- 2012.	CSIR, New Delhi	Seminar
6	DRDO Sponsored three Days Workshop on "Systematic Technology Transfer for Sustainable Materials and Structures" (ST2SMS – 2012) organized by K.S.R College of Engineering, Tiruchengode, on 22nd and 24th August 2012.	DRDO, New Delhi	Workshop

5	One day Seminar on "Fundamentals of Ocean and Costal Engineering" (FOCE – 2011), K.S.R College of Engineering, Tiruchengode, India. September 2nd 2011.	KSRCE	Seminar
4	International Conference on "Civil, Structural and Environmental Engineering" (ICSEE - 2011) at K.S.R College of Engineering, Tiruchengode, India. February 18th & 19th - 2011.	AICTE, CSIR & Others	International Conference
3	AICTE Sponsored National Conference on "Advancement in oncrete Technology" (NCACT – 10) at K.S.R College of Engineering, Tiruchengode, India. September 23rd & 24th - 2010	AICTE, New Delhi	Conference
2	National Conferences on "Emerging Trends in Civil Engineering" at K.S.R College of Engineering, Tiruchengode, India. February 23rd - 2010.	KSRCE	Conference
1	National Seminar on "Awareness of Solid Waste Management" on 21.10.2009, at Department of Civil Engineering, K.S.R. College of Engineering, Tiruchengode, India.	KSRCE	Seminar

28. Subjects Taught

Title of the Course taught	Year	U.G. /P.G.	Approximate No. of Learners	Institution/University
Non-Destructive Testing and Evaluation for Concrete Structures	IV	UG	45	Institution
Design of PSC Structures	IV	UG	64	Institution
Advanced Design of RCC Structures	II	PG	45	Institution
Repair and Rehabilitation of Structures	I	PG	20	Institution
Advanced Design of Steel Structures	I	PG	26	Institution
Advanced Concrete Technology	I	PG/Ph.D.	19	Institution
Elements of Surveying	III	UG	61	Institution
Advanced Structural Engineering Lab	II	PG	40	Institution
Strength of Materials	II	UG	25	University
Building Materials and Construction	II	UG	25	University
Structural Analysis	II	UG	25	University
Fluid Mechanics	II	UG	25	University
Irrigation Engineering	II	UG	25	University
CADD for Civil Engineers	I	Ph.D.	05	University
Engineering Mechanics	I	UG	60	Institution
Engineering Graphics	I	UG	60	Institution
Mechanics of Solids	II	UG	60	Institution
Aseismic Design of Structures	IV	UG	60	Institution

Estimating and Cost Engineering	IV	UG	60	Institution
Structural Dynamics	I	PG/Ph.D.	18	Institution
Finite Element Method	I	PG/Ph.D.	18	Institution
Bridge Engineering	II	PG	18	Institution

29. Foreign Countries Visited

S.No	COUNTRIES VISITED	Duration	Purpose
1	Malaysia	04.05.2016 – 05.05.2016	National University of Malaysia for International Conference
2	Singapore	06.05.2016 – 07.05.2016	National University of Singapore for Research facility interchange
3	Thailand	24.08.216 – 27.08.2016	For International Conference
4	United Arab Emirates (UAE)	25.01.2017 – 26.01.2017	For International Conference

Declaration

I hereby declare that the above furnished information by me is true to the best of my knowledge and belief.

Date: 14.10.2026 Sd/-

Place: NITK, Surathkal **(Dr. T Palanisamy)**

****