

Dr.S.Karthiyaini, M.E, PhD
Associate Professor
Structural & Geotechnical Engineering Division
School of Mechanical & Building Sciences
VIT -Chennai Campus
8903209496 / 1549
karthiyaini.s@vit.ac.in

JOURNAL PUBLICATION

1. B.S.R. Yeddula, S. Karthiyaini, Effect of red mud proportion on the strength and microstructure of ferrosialate based geopolymer mortar, Indian Journal of Engineering and Materials Sciences. [IJEMS Vol.27\(3\) \[June 2020\]](#)(IF- 0.521)
2. B.S.R. Yeddula, **S. Karthiyaini**, Experimental investigations and GEP modelling of compressive strength of ferrosialate based geopolymer mortars, Construction and Building Materials. 236 (2020) 117602. doi:10.1016/j.conbuildmat.2019.117602. (IF- 4.419, Elsevier)
3. B.S.R. Yeddula, **S. Karthiyaini**, Experimental investigations and prediction of thermal behaviour of ferrosialate-Based geopolymer mortars, Arabian Journal for Science and Engineering (2020). doi:10.1007/s13369-019-04314-7. (IF- 1.711, Springer)
4. **S.Karthiyaini**, M. Shanmugasundaram, R. Sivakumar, ““Market Response Of Real Estate And Automotive Industry During Pandemic-A Transdisciplinary Approach” IAEME, Vol.11, Issue 5 May2020.
5. B.S.R. Yeddula, **S. Karthiyaini**, Effect of red mud proportion on the strength and microstructure of ferrosialate based geopolymer mortar, Indian Journal of Engineering and Materials Sciences. (IF- 0.521) – Article in press.
6. B.S.R. Yeddula, **S. Karthiyaini**, Machine learning in mix design and predicting the properties of geopolymer concrete – A review, Advances in Civil Engineering (IF- 1.176) – Final review completed, Awaiting confirmation. (IF- 1.176)
7. **S. Karthiyaini**, K. Senthamaraikannan, J. Priyadarshini, K. Gupta, and M. Shanmugasundaram, “Prediction of Mechanical Strength of Fiber Admixed Concrete Using

Multiple Regression Analysis and Artificial Neural Network,” *Adv. Mater. Sci. Eng.*, vol. 2019, 2019.

8. **S.Karthiyaini**, Velmurugan K, “Research on Mechanical and Durability Properties of GGBS and Copper Slag Mix Mortar”, *IJRTE*, Vol.8, issue September 2019
8. M. Shanmugasundaram, **S. Karthiyaini**, and A. Arif, “A case study on enterprise culture heritage management of construction industry based on employee feedback,” *Int. J. Civ. Eng. Technol.*, vol. 9, no. 13, pp. 574–578, 2018.
9. L. Ponraj Sankar, M. Shanmugasundaram, **S. Karthiyaini**, and L. Andal, “An experimental study on compressive strength of fine grinded flyash admixed concrete,” *Int. J. Civ. Eng. Technol.*, vol. 9, no. 13, pp. 1138–1141, 2018.
10. S. U. Anumeena **S. Karthiyaini**, “An experimental investigation on the effect of nano silica in concrete,” *Int. J. Civ. Eng. Technol.*, vol. 9, no. 3, pp. 152–157, 2018.
11. S. M. Shanmuga sundaram, **S. Karthiyaini**, and R. K. Gaddam, “An investigation on mechanical strength of alkali activated ultra-fine natural steatite powder based geopolymer mortar,” *Int. J. Civ. Eng. Technol.*, vol. 9, no. 2, pp. 516–521, 2018.
12. M. Shanmugasundaram, **S. Karthiyaini**, and A. Arif, “Stress evaluation on mechanical construction and its allied manufacturing industry employees and its basic impact on productivity: A case study,” *Int. J. Mech. Prod. Eng. Res. Dev.*, vol. 7, no. 6, pp. 607–612, 2017.
13. M. Shanmuga Sundaram and **S. Karthiyaini**, *Physicochemical properties of ash-based geopolymer concrete*, vol. 1–8. 2017.
14. M. Pooja and **S. Karthiyaini**, “Investigation of flat slab structures with and without expansion joints for thermal stresses,” *Int. J. Civ. Eng. Technol.*, vol. 8, no. 4, pp. 1287–1295, 2017.

15. A. R. K. Unnithan, **S. Karthiyaini**, “Design and analysis of high rise building with steel plate shear wall,” *Int. J. Civ. Eng. Technol.*, vol. 8, no. 4, pp. 1012–1025, 2017.
16. **S. Karthiyaini**, “Physicochemical properties of alkali activated fly ash based geopolymer concrete: A review,” *Int. J. Earth Sci. Eng.*, vol. 9, no. 6, pp. 2419–2426, 2016.
17. **S. Karthiyaini** and S. Nagan, “An experimental study on geopolymer slender column strengthened by GFRP sheets,” *Int. J. Earth Sci. Eng.*, vol. 9, no. 1, pp. 52–58, 2016.
18. M. Shanmugasundaram, **S. Karthiyaini**, and K. Sudalaimani, “Influence of ultrafine natural steatite powder on strength and permeability of high-performance concrete,” *Int. J. Appl. Eng. Res.*, vol. 10, no. 18, pp. 38967–38971, 2015.
19. S. Nagan and **S. Karthiyaini**, “A study on load carrying capacity of fly ash-based polymer concrete columns strengthened using double layer GFRP wrapping,” *Adv. Mater. Sci. Eng.*, vol. 2014, 2014. (impact factor 0.897)
20. **S. Karthiyaini** and S. Nagan, “Behaviour of geopolymer concrete circular column Using glass fiber reinforced polymer,” *Indian J. Eng. Mater. Sci.*, vol. 21, no. 4, pp. 458–464, 2014. . (Impact Factor: 0.6).
21. **S. Karthiyaini**, S. Nagan, “Investigation on Strengthening of Geopolymer Concrete Column using GFRP sheets” *Jokull : The ice land Journal of Earth Sciences*, Vol 63, Jul 2013 (Impact Factor= 1.61)

CONFERENCE PUBLICATION

A Comparative Study on Seismic Performance of Integrated Wall Panelled Structure And Framed Structure, International Conference on Civil Engineering and Infrastructural Issues in Emerging Economies, Sastra University, Thanjavur, Tamil Nadu, India.

Published paper on International Conference on Experimental Investigation of Hybrid Fiber on High Strength Concrete, Amity University, Noida

Published paper on International Conference on Analysis on Stabilization of an Asymmetric Structure Using Seismic Isolators, Amity University, Noida

Published paper on International Conference on Effect of Temperature Stresses on Geopolymer Concrete and Finite Element Modelling of Geopolymer Beams, Amity University, Noida

Published paper on National level conference in earth quake Engg in Structural Health monitoring at Thaigarajar college of Engg, Madurai in the year 2008.

Published paper on International Conference on Civil. Structural and Environmental Engineering (ICSEE-11) in Behaviour of CFSB members under flexure & Web Based Bridge Design at K.S.R. College of Engg, Tiruchengode in the year 2011.

Published paper on Modern Construction Practices in Steel & Concrete in Web Based Trends in Concrete Composites at Kongu Engineering College

Published paper on National Conference Investigation Of Geopolymer Concrete Column in Mepco Schlenk Engineering College, Sivakasi

Published paper on National Conference Investigation Of Geopolymer Concrete short Column in Kamaraj College of Engineering.

BOOKS/CHAPTERS PUBLICATION

1. Applied Geology, Anuradha Publications, Kumbakonam for III Semester Civil Engineering as per Anna University with ISBN Number 978-81-8472-214-7
2. Physicochemical Properties of Ash-based Geopolymer Concrete Handbook of Composites from Renewable Materials, (563–580) © 2017 Scrivener Publishing LLC.
3. Sustainable Buildings, Shanlax Publishers, ISBN Number 9789390000000- 2018
4. Construction Economy- A Modern Perspective, **ISBN: 978-93-5406-574-3, Published by: ASKM Innovations and Sakthi Consultancy Pvt Ltd.**