



## **Dr. Jessy Rooby**

Professor, Civil Engineering Department,  
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Total experience : 30 years

Specialisation : Structural Engineering

Research areas: Retrofitting of structures, Sustainable Materials,  
Concrete structures, Health Monitoring of structures

### **RESEARCH AND STUDENT PROJECTS**

- Retrofitting of concrete structures
- Sustainable Construction using Fibre Reinforced Concrete
- Performance of eccentrically loaded reinforced concrete column with chipped tyre rubber
- Performance of Glass Fibre Reinforced Concrete Beams with Sustainable Waste Materials
- Properties and durability of GGBS concrete cured with carbon dioxide
- Performance of High-volume fly ash concrete
- Performance of Rubber concrete
- Aerodynamic database for tall structures

### **ACHIEVEMENTS**

- Completed two MODROBS projects funded by AICTE
- Completed one funded project funded by DAE under BRNS scheme
- Filed two patents
- Published 30 papers in indexed journals and more than 40 conference publications.
- Reviewer in reputed journals and member in Board of studies of other Universities.

### **RECENT PUBLICATIONS**

- P.Kala, N.sivakami, R.AngelinePrabhavathy, Jessy Rooby, "Stress strain behaviour of Bacterial concrete incorporated with Sugarcane fibres" Turkish Journal of Computer and Mathematics Education, Vol.12, No.3(2021)5596-5606, April 2021. <https://doi.org/10.17762/turcomat.v12i3.2231>
- E.Prabakaran, A.Vijayakumar, Jessy Rooby, M.Nithya, "A comparative study of polypropylene fiber reinforced concrete for various mix grades with magnetized water" Materials Today Proceedings, Volume 45, Part 1, 2021, Pages 123-127 <https://doi.org/10.1016/j.matpr.2020.10.108>
- Prabhu, V. and Jessy Rooby. (2021). Performance of Component level Testing for Building Material Containing Waste Products. Materials Today: Proceedings. <https://doi.org/10.1016/j.matpr.2021.04.240>
- Gopinath Rajendran, Jessy Rooby & Venkatesan Govindan, Influence of groundwater quality on human health and its suitability for drinking and irrigation uses: a review, International Journal of Environmental Analytical Chemistry, October 2021 <https://www.tandfonline.com/loi/geac20>

- Sulagno Banerjee, Jessy Rooby, Ductility of Tyre Rubber Concrete columns, International Journal of Advanced research in Engineering and Technology, 2020, 11(5), pp.516-528
- Sulagno Banerjee, AritraMandal,JessyRooby, “Review of tyre as aggregate replacement in concrete”, Journal of Critical Reviews, ISSN.2394-5125, Vol7, Issue9, 2020
- P.S.Joanna, T.S.Parvati, Jessy Rooby, R.Preetha ‘A study on the flexural behavior of sustainable concrete beams with high volume fly ash’ Materials Today Proceedings September 2020.
- S.AnandRaj,JessyRooby,P.O.Awoyera, R.Gobinath,“Structural distress in glass fibre-reinforced concrete under loading and exposure to aggressive environments”, Construction and Building Materials,197, 2019, pp.862-870. <https://doi.org/10.1016/j.conbuildmat.2018.06.090>
- Sulagno Banerjee, Jessy Rooby, “Behaviour of columns made from concrete content waste rubber as aggregate replacement”, Journal of Engineering and Applied Science, Volume 14, Issue 10, 2019, pp: 3430-3433.
- Aritra Mandal, Jessy Rooby, “Behaviour of Beams with waste rubber as aggregate replacement”, International Journal of Civil Engineering and Technology, Vol 10, Issue 2, 2019, pp.446-453.
- Shalini R Nair, Jessy Rooby, T.S.Parvatiand.P.S.Joanna,“Response of Tall Structures Subjected to Constant and Varying Wind Velocity”,International Journal of Civil Engineering and Technology Volume 10, Issue 12,2019, pp. 459-465,
- S. Anandaraj, J. Rooby, G. Ravindran, A. K. Beerala, V. Mulukalla and S. Koduri, "Strength prediction using ANN for concrete with Marble and Quarry dust," 2018 International Conference on Intelligent Computing and Communication for Smart World (I2C2SW), Erode, India, 2018, pp. 357-363, doi: 10.1109/I2C2SW45816.2018.8997326.
- “Performance of concrete with partial replacement of coarse aggregate with tyre chipped rubber” at international conference on recent advancements in civil engineering and infrastructural developments (ic-raceid-2019) 05 & 06 July 2019 indexed by springer
- A Comparative Study of Aerodynamic Coefficients on Tall Structures using Experimental Studies with International Codes and Standards, International conference on 'Materials, Mechanics and Structures',-July\_2020, NIT/Calicut
- Application of Autonomous Robots for Health Monitoring of Structures: A Review , International Conference on Robotics, Automation and Non-destructive Evaluation (RANE 2018) – Chennai