



SAMUEL JAMES

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Teaching & Industrial Experience: 26

Years **Specialization:** Structural Engineering

Research area:

Steel Structures/Concrete Structures/Composite Structures/ Fly Ash
Concrete/ Cold-Formed Steel

ACADEMIC PROFILE

Teaching Expertise: Structural Steel Design, Strength of Materials, Engineering Mechanics, Engineering & Design, Estimation & Costing, Project Management.

RESEARCH AND STUDENT PROJECTS

- Cold-Formed Steel-Fly ash Concrete Composite beam studies.
- CO₂ curing of Concrete.
- Sustainable Construction materials.
- Low-cost housing.

NOTABLE ACHIEVEMENTS

- Granted Australian patent for “A Cold-Formed Steel I-beam system with twin rebars in web and encased with fly-ash concrete” in November 2021.
- Granted Indian patent for “Cold-Formed Steel beam with encased braced web for earthquake resistant constructions” in May 2021.
- Improved Alumni relations and Institution-Industry Interaction in the last 7 years.

PUBLICATION

Journal Publication:

- ❖ Samuel, J., Joanna, P.S. "Experimental study and numerical modelling on the behaviour of built-up cold-formed steel beams with diagonal web bars", International Journal of Scientific and Technology Research, 2020, 9(2), pp. 2272-2276.
- ❖ Samuel, J., Joanna, P.S. "The effects of braced web in cold-formed steel beams", International Journal of Chemical Sciences, 2016, 14, pp. 377-385.
- ❖ Parvati, T.S., Namitha Jacob, J., Samuel, J., Joanna, P.S. "Behavior of high volume fly-ash concrete beams", International Journal of Civil Engineering and Technology, 2018, 9(13), pp. 472-479

Conference Publication:

- ❖ J. Samuel, P.S. Joanna "The Effects Of Braced Web In Cold-Formed Steel Beams", International Conference on Disaster Management and Civil Engineering- 2016, ICDMCE 2016 organised by Aarupadai Veedu Institute of Technology Kancheepuram District, Chennai-603 104 on 22 and 23 April 2016.
- ❖ J Samuel & P.S. Joanna “Numerical Modeling Of Built-Up Cold-Formed Steel Beams With Diagonal Web Bars” International Conference on Robotics, Automation and Non-destructive Evaluation (RANE 2018) 19 July 2018.
- ❖ J. Samuel, J. Pravin, R. Divahar, P.S. Aravind Raj, P.S. Joanna "Performance enhancement of built-up cold-formed steel beams with diagonal rebars in web", Materials Today: Proceedings Scopus Indexed, 29th August 2020.
- ❖ J. Samuel, P.S. Joanna "Behaviour of Partially Encased Cold-Formed Steel Beams with Braced Webs", ISTE Sponsored Sixth National Conference on LATEST ADVANCEMENTS IN CIVIL ENGINEERING (LACE - 2016) 25 April 2016.
- ❖ J Samuel, P S Joanna, "Behavior of Cold-Formed Steel Beams with Braced Webs", National Conference On Advances In Construction Technology And Innovative Sustainable Materials, Actism 2016, 5 & 6th Feb. 2016