



# HINDUSTAN

INSTITUTE OF TECHNOLOGY & SCIENCE  
(DEEMED TO BE UNIVERSITY)

CHENNAI

**Department of Civil Engineering**

**2019 - 2022**

**Peer – Reviewed Research Publications**

Sl. No	Authors	Title	Year	SourceTitle	DOI	DocumentType
1	Karthick J, Samuel Devadoss R	Comparative study on air contaminants discharged from several industrial stacks operated from various forms of fuels	2019	Disaster Advances	-	Article
2	Karthick J, Natesan R, Samuel Devadoss R and Shanaz Fathima	Limited environmental impact (Air Pollution) evaluation for a Tamilnadu Port, India	2019	Ecology, Environment and Conservation	-	Article

3	E. Prabakaran, Jessy Rooby	Experimental Investigation on Concrete Using Flyash As a Partial Replacement for Cement with Grey Water in Magnetic Field	2019	International Journal of Recent Technology and Engineering	-	Article
4	V.Navakoteswara Rao N.Lakshmana Reddy M.Mamatha Kumari P.RavibM.Sathish K.M.Kuruvilla V.PreethicKakarl RaghavaReddy Nagaraj P.ShettiefTejraj M.Aminabhavi M.V.Shankara	Photocatalytic recovery of H <sub>2</sub> from H <sub>2</sub> S containing wastewater: Surface and interface control of photo-excitons in Cu <sub>2</sub> S@TiO <sub>2</sub> core-shell nanostructures	2019	Applied Catalysis B: Environmental	<a href="https://doi.org/10.1016/j.apcatb.2019.04.090">https://doi.org/10.1016/j.apcatb.2019.04.090</a>	Article
5	V.Prabhu, Jessy Rooby, A.Rajaraman	Investigational Study on Eco and Energy Friendly Infrastructural Materi	2019	Journal of Green Engineering (JGE)	-	Article
6	AritraMandal, Sulagno Banerjee, Dr. Jessy Rooby	Behavior of beams made from concrete content waste rubber as aggregate replacement	2019	International Journal of Civil Engineering and Technology (IJCIET)	-	Article
7	Ravi Kumar P, Abhinav Bhandari, Tika Devi Rai, Jessy Rooby, Sundararajan T	Strength of Geopolymer Paste using a Ternary Blend of Fly Ash GGBFS and Silica Fume under Ambient Conditions	2019	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	<a href="https://dx.doi.org/10.35940/ijitee.K2156.0981119">https://dx.doi.org/10.35940/ijitee.K2156.0981119</a>	Article

8	Sulagno Banerjee, AritraMandal,JessyRooby	Behavior of Columns Made from Concrete Content Waste Rubber as Aggregate Replacement	2019	Journal of Engineering and Applied Sciences	<a href="https://dx.doi.org/10.36478/jeasci.2019.3430.3433">https://dx.doi.org/10.36478/jeasci.2019.3430.3433</a>	Article
9	Sulagno Banerjee, Jessy Rooby	Strength and Ductility of Tyre Rubber Concrete Columns	2019	International Journal of Recent Technology and Engineering ( IJRTE)	<a href="http://dx.doi.org/10.35940/ijrte.C3889.118419">http://dx.doi.org/10.35940/ijrte.C3889.118419</a>	Article
10	Sulagno Banerjee, Jessy Rooby	Strength Properties of Tyre Rubber Concrete	2019	International Journal of Recent Technology and Engineering ( IJRTE)	NA	Article
11	Shalini R Nair,Dr. Jessy Rooby, Dr. T.S. Parvati, Dr. P.S. Joanna	Response Of Tall Structures Subjected To Constant And Varying Wind Velocity	2019	International Journal of Civil Engineering and Technology (IJCET)	NA	Article
12	J. Samuel, P.S. Joanna	Experimental Study And Numerical Modelling On The Behaviour Of Built-Up Cold-Formed Steel Beams With Diagonal Web Bars	2020	International Journal of Scientific and Technology Research	NA	Article

13	J. Karthick, R. Samuel Devadoss, S. Sharmila And R. Natesan	Investigational Assessment On Gaseous Stack Emissions From Liquid Form Of Fuels Under Various Loading Conditions	2020	Pollution Research	NA	Article
14	Sulagno Banerjee, Dr Jessy Rooby	Ductility Of Tyre Rubber Concrete Columns	2020	International Journal of Advanced Research in Engineering and Technology (IJARET)	<a href="https://doi.org/10.34218/IJARET.11.5.2020.053">https://doi.org/10.34218/IJARET.11.5.2020.053</a>	Article
15	M.Anthony Raja, V.Preethi	Performance of Square and Trapezoidal photoreactors for solar hydrogen recovery from various industrial sulphide wastewater using CNT/Ce <sup>3+</sup> doped TiO <sub>2</sub>	2020	International Journal of Hydrogen Energy	<a href="https://doi.org/10.1016/j.ijhydene.2019.09.168">https://doi.org/10.1016/j.ijhydene.2019.09.168</a>	Article
16	M. Anthony Raja, V. Preethi	Photocatalytic hydrogen production using benchscale trapezoidal photocatalytic reactor	2020	International Journal of Hydrogen Energy	<a href="https://doi.org/10.1016/j.ijhydene.2019.08.204">https://doi.org/10.1016/j.ijhydene.2019.08.204</a>	Article

17	TamilmaniJayabalan, ManickamMatheswaran, V.Preethi, SamsudeenNainaMohame da	Enhancing biohydrogen production from sugar industry wastewater using metal oxide/graphene nanocomposite catalysts in microbial electrolysis cell	2020	International Journal of Hydrogen Energy	<a href="https://doi.org/10.1016/j.ijhydene.2019.09.068">https://doi.org/10.1016/j.ijhydene.2019.09.068</a>	Article
18	Yoganantham C, Joanna P.S.	Effect Of High Volume Fly Ash Concrete In Self-Curing Engineered Cementitious Composite (Ecc)	2020	International Journal of Advanced Research in Engineering and Technology	NA	Article
19	Daniel Cruze, Hemalatha Gladston, Sarala Loganathan, Tensing Dharmaraj & Sundar Manoharan Solomon	Study on Magnatec oil- based MR fluid and its damping efficiency using MR damper with various annular gap configurations. Energy, Ecology and Environment	2020	Energy, Ecology and Environment	<a href="https://doi.org/10.1007/s40974-020-00170-6">https://doi.org/10.1007/s40974-020-00170-6</a>	Article
20	P. S. Aravind Raj, R. Divahar, S. P. Sangeetha & P. S. Joanna	Quasi-static cyclic load performance of encased concrete-filled steel tubular with steel loops joint using sustainable concrete	2020	Asian Journal of Civil Engineering	<a href="https://doi.org/10.1007/s42107-020-00274-8">https://doi.org/10.1007/s42107-020-00274-8</a>	Article

21	Hariram Venkatesan, Godwin John John Rose, Preethi Vijayarangan, SeralathanSivamani, Jagannathan Krishnan & Micha PremkumarThomai	Predicting the combustion behaviour of compression ignition engine fuelled with biodiesel from Stoechospermum marginatum, a macro algae	2020	Environmental Science and Pollution Research	<a href="https://doi.org/10.1007/s11356-020-10048-z">https://doi.org/10.1007/s11356-020-10048-z</a>	Article
22	Karthick J, Samuel Devadoss R., Sharmila S. and Karthikeyan S.	Assessment of meteorological parameters for flat terrain condition by using AERMET, a pre- processor dispersion model	2020	Research Journal of Chemistry and Environment	NA	Article
23	Divahar Ravi, Aravind Raj Ponsubbiah, Sangeetha Sreekumar Prabha, Joanna Philip Saratha	Experimental, analytical and numerical studies on concrete encased trapezoidally web profiled cold-formed steel beams by varying depth-thickness ratio	2020	Frontiers of Structural and Civil Engineering	<a href="https://doi.org/10.1007/s11709-020-0652-1">https://doi.org/10.1007/s11709-020-0652-1</a>	Article
24	Sankar Sekar, SejoonLee,PreethiVijayar engan , Kaliyappan Mohan Kalirajan ,ThirumavalavanSanthak umar, Saravanan Sekar and SuthaSadhasivam	Upcycling of Wastewater via E ective Photocatalytic Hydrogen Production Using MnO <sub>2</sub> Nanoparticles— Decorated Activated Carbon Nanoflakes	2020	nanomaterials	<a href="https://doi.org/10.3390/nano10081610">https://doi.org/10.3390/nano10081610</a>	Article

25	V. T. Neelmudiyon, Dr. V. Preethi, Dr. S. Govindarajan	A Study On Conjunctive Use Of Green And Blue Water InDeevanur Tank Irrigated Area	2020	International Journal of Advanced Research in Engineering and Technology	NA	Article
26	Sankar Sekar ,Sejoon Lee, Deuk Young Kim, V.Preethic,K.M.Kalirajan, S. Sutha,S. Saravanan, Anirudh Therli, Mahuya Roy, K. Jagannathan	Biomass activated carbon-decorated spherical $\beta$ -Ni(OH) <sub>2</sub> nanoparticles for enhanced hydrogen production from sulphide wastewater	2020	Journal of Water Process Engineering	<a href="https://doi.org/10.1016/j.jwpe.2020.101669">https://doi.org/10.1016/j.jwpe.2020.101669</a>	Article
27	C. Ganesan, P.S. Joanna,Dalbir Singh	Strain Rate Effect on Progressive Failure and Tensile Behavior of Kevlar Epoxy Composites	2020	International Journal of Vehicle Structures and Systems	<a href="https://doi.org/10.4273/ijvss.12.4.12">https://doi.org/10.4273/ijvss.12.4.12</a>	Article
28	S.Sharmila, T.S.Parvati	Experimental Study on Manufacturing of bricks using E-Waste for Green Environment	2020	Journal of Green Engineering (JGE)	<a href="#">NA</a>	Article

29	Daniel Cruze, Hemalatha Gladston, Ehsan Noroozinejad Farsangi, Sarala Loganathan, Tensing Dharmaraj and Sundar M. Solomon	Development of a Multiple Coil Magneto-Rheological Smart Damper to Improve the Seismic Resilience of Building Structures	2020	Open Civil Engineering Journal	<a href="http://dx.doi.org/10.2174/1874149502014010078">http://dx.doi.org/10.2174/1874149502014010078</a>	Article
30	Ravikumar P, Abhinav Bhandari, Joshua Paul Verghese, Abhilesh N Jain, Tika Devi Rai, JessyRooby, Sundararajan T	Mechanical Properties of High Calcium Flyash- GGBFS Geopolymer Paste, Mortar and the Effect of Glass Fibre Mesh on the Strength of Geopolymer Mortar Tile	2020	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	<a href="https://dx.doi.org/10.35940/ijitee.F3955.049620">https://dx.doi.org/10.35940/ijitee.F3955.049620</a>	Article
31	M. Anthony Raja, Preethi , Yash Pal, Naresh Nalajala, Chinnakonda S	Photocatalytic Hydrogen Production from H <sub>2</sub> S using Nanostructured CNT blended CdZnS/Fe <sub>2</sub> O <sub>3</sub> Thin Film on Glass Substrate	2020	Journal of Physics: Conference Series	<a href="http://dx.doi.org/10.1088/1742-6596/1495/1/012035">http://dx.doi.org/10.1088/1742-6596/1495/1/012035</a>	Conference
32	M.Chinnasamy, R Ajithkumar, Anisha Singh, Dorjee Yangzom, T.S.Parvati, P.S.Joanna	Comparative study on the behaviour of textile reinforced concrete slab with engineered cementitious composite slab	2020	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2020.07.529">https://doi.org/10.1016/j.matpr.2020.07.529</a>	Conference



33	Shalini R Nair, Jessy Rooby and R John Branesh	A Comparative Study of Aerodynamic Coefficients on Tall Structures using Experimental Studies with International Codes and Standards	2020	International Conference on Materials, Mechanics and Structures 2020 (ICMMS2020)	<a href="https://doi.org/10.1088/1757-899X/936/1/012054">https://doi.org/10.1088/1757-899X/936/1/012054</a>	Conference
34	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	2020	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2020.07.343">https://doi.org/10.1016/j.matpr.2020.07.343</a>	Conference
35	D.Jini, Sharmila	Green synthesis of silver nanoparticles from Allium cepa and its in vitro antidiabetic activity	2020	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2019.07.672">https://doi.org/10.1016/j.matpr.2019.07.672</a>	Conference
36	-Sulagno Banerjee, Aritra Mandal & Jessy Rooby	Performance of Concrete with Partial Replacement of Coarse Aggregate with Tyre Chipped Rubber	2020	Advances in Civil Engineering and Infrastructural Development	<a href="#">NA</a>	Book/Chapter

37	Yoganantham , P.S Joanna	Performance Analysis of sustainable GFRP Beam Using HVFA ECC Infill	2021	Journal of Green Engineering	<a href="http://dx.doi.org/10.1016/j.matpr.2020.09.265">http://dx.doi.org/10.1016/j.matpr.2020.09.265</a>	Article
38	C.Yoganantham, Karthikeyan K, P.S. Joanna	Seismic Behaviour of Building with GFRP Frames Infilled with Sustainable ECC	2021	Journal of Green Engineering	<a href="#">NA</a>	Article
39	J oel Shelton,Venkata Naresh,Arun Solomon,Daniel C	Experimental and analytical investigation of geo-grid confined RC beams with glass fiber reinforced concrete	2021	Structures	<a href="https://doi.org/10.1016/j.istruc.2021.08.002">https://doi.org/10.1016/j.istruc.2021.08.002</a>	Article
40	VempuluruNavakoteswar a Rao, Vijayarengan Preethi	Gram-scale synthesis of ZnS/NiO core-shell hierarchical nanostructures and their enhanced H <sub>2</sub> production in crude glycerol and sulphide wastewater	2021	Environmental Research	<a href="https://doi.org/10.1016/j.envres.2021.111323">https://doi.org/10.1016/j.envres.2021.111323</a>	Article

41	Sankar Sekar, V. Preethi, S. Saravanan, Deuk Young Kim, Sejoon Lee	Excellent photocatalytic performances of Co <sub>3</sub> O <sub>4</sub> -AC nanocomposites for H <sub>2</sub> production via wastewater splitting	2021	Chemosphere	<a href="https://doi.org/10.1016/j.chemosphere.2021.131823">https://doi.org/10.1016/j.chemosphere.2021.131823</a>	Article
42	J. Branesh Robert, Angeline Prabhavathy, P. S. Joanna	Flexural Behaviour of RC Beams with a Circular Opening at the Flexural Zone and Shear Zone Strengthened Using Steel Plates	2021	Advances in Civil Engineering	<a href="https://doi.org/10.1155/5/2021/6733402">https://doi.org/10.1155/5/2021/6733402</a>	Article
43	Sujana Chandrappa, Dharmapura H.K. Murthy, Nagappagari Lakshmana Reddy, S. Jagadeesh Babu, Dinesh Rangappa, Urupalli Bhargav, Vijayarengan Preethi	Utilizing 2D materials to enhance H <sub>2</sub> generation efficiency via photocatalytic reforming industrial and solid waste	2021	Environmental Research	<a href="https://doi.org/10.1016/j.envres.2021.111239">https://doi.org/10.1016/j.envres.2021.111239</a>	Article
44	Gopinath Rajendran, Jessy Rooby & Venkatesan Govindan	Influence of groundwater quality on human health and its suitability for drinking and irrigation uses: a review	2021	International Journal Of Environmental Analytical Chemistry	<a href="http://dx.doi.org/10.1080/03067319.2021.1982922">http://dx.doi.org/10.1080/03067319.2021.1982922</a>	Article

45	Daniel Cruze, Hemalatha Gladston, Ehsan Noroozinejad Farsangi, Arnab Banerjee4, Sarala Loganathan5 and Sundar Manoharan Solomon	Seismic performance evaluation of a recently developed magnetorheological damper: experimental investigation	2021	Practice Periodical on Structural Design and Construction	<a href="http://dx.doi.org/10.1061/(ASCE)SC.1943-5576.0000544">http://dx.doi.org/10.1061/(ASCE)SC.1943-5576.0000544</a>	Article
46	K. Sumanth Ratna, C. Daniel, Anshika Ram, B. Siva Kumar Yadav, G. Hemalatha	Analytical Investigation of MR Damper for Vibration Control: A Review	2021	Journal Of Applied Engineering Sciences	<a href="http://dx.doi.org/10.2478/jaes-2021-0007">http://dx.doi.org/10.2478/jaes-2021-0007</a>	Article
47	S. V. S. Jebadurai, D. Tensing, C. Daniel, E. Arunraj, G. Hemalatha	Analytical Approach to Estimate Equivalent Strut Width for Wire Meshed Masonry Infilled RC Frame under Dynamic Loading	2021	Civil Engineering and Architecture	<a href="http://dx.doi.org/10.13189/cea.2021.090421">http://dx.doi.org/10.13189/cea.2021.090421</a>	Article
48	R. Christopher Danielraj, D.N. Aniruddha, T.S. Parvati, P.S. Joanna	Mechanical properties of sustainable nano concrete using optimized admixture	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2020.09.201">https://doi.org/10.1016/j.matpr.2020.09.201</a>	Conference
49	C. Yoganantham, P.S. Joanna	Flexural behaviour of pultruded GFRP beams infilled with HVFA ECC	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2020.09.265">https://doi.org/10.1016/j.matpr.2020.09.265</a>	Conference

50	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	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2020.08.767">https://doi.org/10.1016/j.matpr.2020.08.767</a>	Conference
51	M. Jothilingam, V. Preethi	Feasibility, compressive strength and utilization of redmud in geopolymer concrete for sustainable constructions	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2021.01.535">https://doi.org/10.1016/j.matpr.2021.01.535</a>	Conference
52	NeelmudiyonV.T , Preethi V, Govindarajan S	Impact on Deevanur tank irrigation system using buried PVC pipe line – A case study	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2021.04.542">https://doi.org/10.1016/j.matpr.2021.04.542</a>	Conference
53	C. Ganesan , P.S. Joanna , Dalbir Singh	Fatigue life modeling of FRP composites: A comprehensive review	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2020.11.119">https://doi.org/10.1016/j.matpr.2020.11.119</a>	Conference

54	PrabhuV.JessyRooby	Performance of component level testing for building material containing waste produc	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2021.04.240">https://doi.org/10.1016/j.matpr.2021.04.240</a>	Conference
55	B. Selvarani , V. Preethi	Investigational study on optimum content of GGBS and fibres in fibre non-breakable self compacting concrete	2021	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2021.05.027">https://doi.org/10.1016/j.matpr.2021.05.027</a>	Conference
56	K. Pankajakshan, P. S. Joanna, Safeer Ali Abbas Ali, and Arun Chandramohan	Qualitative responsibility analysis of building construction delay: A case study of delayed hostel construction project in India	2021	AIP Conference Proceedings	<a href="https://doi.org/10.1063/5.0068095">https://doi.org/10.1063/5.0068095</a>	Conference
57	K. Shanmugam, P. Angeline, V. Preethi	Identification Of Calcium Carbonate Producing Novel Bacillus Cereus Kov15 Isolated From Soil Microbial Communities Towards Greener Construction Materials	2022	Oxidation Communications	<a href="#">NA</a>	Article

58	Abu Talha Aqueel Ahmed, Sankar Sekar, Sejoon Lee, HyunsikIm, V. Preethi, Abu Saad Ansari	Nitrogen-doped cobalt sulfide as an efficient electrocatalyst for hydrogen evolution reaction in alkaline and acidic media	2022	International Journal of Hydrogen Energy	<a href="https://doi.org/10.1016/j.ijhydene.2022.04.076">https://doi.org/10.1016/j.ijhydene.2022.04.076</a>	Article
59	S. Brindha Devi, Sankar Sekar, K. Kowsuki, T. Maiyalagan, V. Preethi, R. Nirmala, Sejoon Lee, R. Navamathavan	Graphitic carbon nitride encapsulated sonochemically synthesized b-nickel hydroxide nanocomposites for electrocatalytic hydrogen generation	2022	International Journal of Hydrogen Energy	<a href="https://doi.org/10.1016/j.ijhydene.2022.04.072">https://doi.org/10.1016/j.ijhydene.2022.04.072</a>	Article
60	Priya A Jacob, R Mercy Shanthi, S Justin, Daniel C	Minimum Weight Design of Transversely Stiffened Plate Girder Using Genetic Algorithm	2022	Civil Engineering and Architecture	<a href="https://doi.org/10.13189/cea.2022.100401">https://doi.org/10.13189/cea.2022.100401</a>	Article
61	Sankar Sekar, V. Preethi, V.S. Srivishnu, S. Saravanan, Sejoon Lee	Highly-efficient photocatalytic activity of TiO <sub>2</sub> -AC nanocomposites for hydrogen production from sulphide wastewater	2022	International Journal of Hydrogen Energy	<a href="#">NA</a>	Article

62	V. Preethi	Solar hydrogen production in India	2022	Environment, Development and Sustainability	<a href="https://doi.org/10.1007/s10668-022-02157-1">https://doi.org/10.1007/s10668-022-02157-1</a>	Article
63	ChinnasamySamy Madan, Krithika Panchapakesan, Potlapalli Venkata Anil Reddy , Philip Saratha Joanna, Jessy Rooby, Beulah Gnana AnanthiGurupatham andKrishanu Roy	Influence on the Flexural Behaviour of High-Volume Fly-Ash-Based Concrete Slab Reinforced with Sustainable Glass-Fibre-Reinforced Polymer Sheets	2022	journal of composites science	<a href="https://doi.org/10.3390/ics6060169">https://doi.org/10.3390/ics6060169</a>	Article
64	ChinnasamySamy Madan, Swetha Munuswamy, Philip Saratha Joanna , Beulah Gnana AnanthiGurupatham and Krishanu Roy	Comparison of the Flexural Behavior of High-Volume Fly AshBased Concrete Slab Reinforced with GFRP Bars and Steel Bars	2022	journal of composites science	<a href="https://doi.org/10.3390/ics6060157">https://doi.org/10.3390/ics6060157</a>	Article
65	Joel Shelton J, Mohammad Izazs, Daniel C, Arun Solomon	Axial Compression Behaviour Analysis of Insulated Concrete Form (ICF) Wall Panel with Fibre Cement Board	2022	Materials Science Forum	<a href="http://dx.doi.org/10.4028/www.scientific.net/MSF.1048.387">http://dx.doi.org/10.4028/www.scientific.net/MSF.1048.387</a>	Article