



**DEPARTMENT OF CIVIL ENGINEERING / नागरिक अभियांत्रिकी विभाग**  
**NATIONAL INSTITUTE OF TECHNOLOGY / राष्ट्रीय प्रौद्योगिकी संस्थान**

Tiruchirappalli – 620 015, Tamil Nadu, India / तिरुचिरापल्ली, तमिलनाडु - ६२००१५, भारत

**Research publications (2020-21)**

S. No.	Title	Authors	Year	Full date	Citations	DOI
1.	Stabilized landfill leachate treatment by zero valent aluminium-acid system combined with hydrogen peroxide and persulfate based advanced oxidation process	Antony, J.  Niveditha, S.V.  Gandhimathi, R.  Ramesh, S.T.  Nidheesh, P.V.	2020	2020-04-01	33	10.1016/j.wasman.2020.03.005
2.	Flyash augmented Fe <sub>3</sub> O <sub>4</sub> as a heterogeneous catalyst for degradation of stabilized landfill leachate in Fenton process	Niveditha, S.V.  Gandhimathi, R.	2020	2020-03-01	32	10.1016/j.chemosphere.2019.125189
3.	Optimization of batch electrocoagulation process using Box-Behnken experimental design for the treatment of crude vegetable oil refinery wastewater	Preethi, V.  Ramesh, S.T.  Gandhimathi, R.  Nidheesh, P.V.	2020	2020-03-20	17	10.1080/01932691.2019.1595640
4.	Vibration vs. vision: best approach for automated pavement distress detection	Lekshmipathy, J.  Samuel, N.M.  Velayudhan, S.	2020	2020-07-01	15	10.1007/s42947-020-0302-y
5.	Energy conservation – A novel approach of co-combustion of paint sludge and Australian lignite by principal component analysis, response surface methodology and artificial neural network modeling	Sathiya Prabhakaran, S.P.  Swaminathan, G.  Joshi, V.V.	2020	2020-11-01	14	10.1016/j.eti.2020.101061
6.	Influence of using agro-waste as a partial replacement in cement on the compressive strength of concrete – A statistical approach	Banu, S.S.  Kartikeyan, J.  Jayabalan, P.	2020	2020-07-30	14	10.1016/j.conbuildmat.2020.118746
7.	Continuous treatability of oily wastewater from locomotive wash facilities by electrocoagulation	Sravanth, T.  Ramesh, S.T.  Gandhimathi, R.  Nidheesh, P.V.	2020	2020-02-11	11	10.1080/01496395.2019.1567548
8.	Study on geomechanical properties of lunar soil simulant (LSS-ISAC-1) for chandrayaan mission	Venugopal, I.  Muthukumar, K.  Annadurai, M.  Prabu, T.  Anbazhagan, S.	2020	2020-12-01	9	10.1016/j.asr.2020.08.021
9.	Infra-red sensor-based technology for collecting speed and headway data on highways under mixed traffic conditions	Singh, S.  Shukla, B.K.  Moses Santhakumar, S.	2020	2020-02-01	9	10.1109/SPIN48934.2020.9070829

10.	Analysis of laterally loaded group of piles located on sloping ground	Deendayal, R.  Muthukkumaran, K.  Sitharam, T.G.	2020	2020-07-03	9	10.1080/19386362.2018.1448521
11.	Photoelectro-peroxone process for the degradation of reactive azo dye in aqueous solution	Joy, A.C.  Gandhimathi, R.  Niveditha, S.V.  Ramesh, S.T.  Nidheesh, P.V.	2020	2020-09-21	9	10.1080/01496395.2019.1634732
12.	Prioritisation of pavement maintenance sections deploying functional characteristics of pavements	Janani, L.  Dixit, R.K.  Sunita, V.  Mathew, S.	2020	2020-12-05	9	10.1080/10298436.2019.1567923
13.	Heterogeneous Fenton process coupled with microfiltration for the treatment of water with higher arsenic content	Pramod, L.  Gandhimathi, R.  Lavanya, A.  Ramesh, S.T.  Nidheesh, P.V.	2020	2020-12-01	8	10.1080/00986445.2019.1674814
14.	Effect of agro-waste on strength and durability properties of concrete	Shameem Banu, S.  Karthikeyan, J.  Jayabalan, P.	2020	2020-10-20	8	10.1016/j.conbuildmat.2020.12032 2
15.	Development of a novel lunar highland soil simulant (LSS-ISAC-1) and its geotechnical properties for Chandrayaan missions	Venugopal, I.  Prabu, T.  Muthukkumaran, K.  Annadurai, M.	2020	2020-12-01	8	10.1016/j.pss.2020.105116
16.	Pedestrian safety evaluation of signalized intersections using surrogate safety measures	Marisamynathan, S.  Vedagiri, P.	2020	2020-01-03	8	10.3846/transport.2020.12157
17.	An integrated electrochemical-Adsorption system for removal of nitrate from water	Jasna, R.S.  Gandhimathi, R.  Lavanya, A.  Ramesh, S.T.	2020	2020-10-01	7	10.1016/j.jece.2020.104387
18.	An Integrated Hydrologic and Hydraulic Flood Modeling Study for a Medium-Sized Ungauged Urban Catchment Area: A Case Study of Tiruchirappalli City Using HEC-HMS and HEC-RAS	Natarajan, S.  Radhakrishnan, N.	2020	2020-06-01	7	10.1007/s40030-019-00427-2
19.	A Review on Conventional and Innovative Pile System for Offshore Wind Turbines	Rathod, D.  Krishnanunni, K.T.  Nigitha, D.	2020	2020-08-01	7	10.1007/s10706-020-01254-0
20.	Development of freight travel demand model with characteristics of vehicle tour activities	Venkadavarahan, M.  Raj, C.T.  Marisamynathan, S.	2020	2020-11-01	6	10.1016/j.trip.2020.100241
21.	Flood hazard delineation in an ungauged catchment by coupling hydrologic and hydraulic models with geospatial techniques—a case study of Koraiyar basin, Tiruchirappalli City, Tamil Nadu, India	Natarajan, S.  Radhakrishnan, N.	2020	2020-11-01	6	10.1007/s10661-020-08650-2
22.	A collaborative framework for traffic information in vehicular adhoc network applications	Manipriya, S.  Mala, C.  Mathew, S.	2020	2020-08-01	6	10.22667/JISIS.2020.08.31.093
23.	GIS based road connectivity evaluation using graph theory	Daniel, C.B.  Saravanan, S.  Mathew, S.	2020	2020-01-01	5	10.1007/978-981-32-9042-6_17
24.	A review for comparing SWAT and SWAT coupled models and its applications	Yamini Priya, R.  Manjula, R.	2020	2020-01-01	5	10.1016/j.matpr.2021.02.414

25.	Characterization, morphology and stability assessment of low-cost industrial by-product as an adsorbent for the removal of methylene blue from aqueous solution	Murugan, P.  Ramesh, S.T.  Biju, V.M.	2020	2020-02-11	5	10.1080/01496395.2019.1567549
26.	Artificial neural network to predict the compressive strength of semilightweight concrete containing ultrafine GGBS	Parthiban, P.  Karthikeyan, J.	2020	2020-03-01	4	10.1520/JTE20180597
27.	Compressive strength estimation of mesh embedded masonry prism using empirical and neural network models	Kanchidurai, S.  Krishnan, P.A.  Baskar, K.	2020	2020-01-01	4	10.22115/SCCE.2020.228611.1213
28.	Invention of Indian Moon Soil (Lunar Highland Soil Simulant) for Chandrayaan Missions	Venugopal, I.  Muthukkumaran, K.  Sriram, K.V.  Anbazhagan, S.  Prabu, T.  Arivazhagan, S.  Shukla, S.K.	2020	2020-12-01	4	10.1007/s40891-020-00231-0
29.	Spatial accessibility analysis of schools using geospatial techniques	Rekha, R.S.  Radhakrishnan, N.  Mathew, S.	2020	2020-12-01	4	10.1007/s41324-020-00326-w
30.	Partition tolerant collaborative gateway architecture for interoperable ITS applications	Sankaranarayanan, M.  Mala, C.  Mathew, S.	2020	2020-01-01	4	10.1504/IJAHUC.2020.111463
31.	A study on mechanical properties of concrete including activated recycled plastic waste	Ashok, M.  Jayabalan, P.  Saraswathy, V.  Muralidharan, S.	2020	2020-02-01	3	10.12989/acc.2020.9.2.207
32.	Stabilization of Montmorillonite-Rich Bentonite Clay Using Neem Leaves Ash	Muthukkumaran, K.  Selvan, S.S.	2020	2020-06-01	3	10.1007/s40891-020-0194-6
33.	Characteristics of blended geopolymer concrete using ultrafine ground granulated blast furnace slag and copper slag	Rathanasalam, V.  Perumalsami, J.  Jayakumar, K.	2020	2020-12-01	3	10.18280/ACSM.440610
34.	Effectiveness of ozone pretreatment on bioconversion of oily bilge water into biopolymer	Uma, V.  Gandhimathi, R.	2020	2020-08-01	3	10.1016/j.jwpe.2020.101275
35.	Assessing the factors affecting the water chemistry parameters in the auxiliary water system of a nuclear power plant	Suganya, P.  Swaminathan, G.  Anoop, B.  Siva Prasad, G.V.R.R.S.G.  Nagarajan, J.	2020	2020-11-01	3	10.1007/s42452-020-03693-z
36.	Virtual mono-layered continuous containers for vehicle detection applications in intelligent transportation systems	Sankaranarayanan, M.  Mala, C.  Mathew, S.	2020	2020-01-02	3	10.1080/09720529.2020.1721865
37.	Study on Behavior of Copper Slag and Lime-Treated Clay under Static and Dynamic Loading	Muthukkumaran, K.  Anusudha, V.	2020	2020-08-01	2	10.1061/(ASCE)MT.1943-5533.0003259
38.	Dynamic soft sensor based parameters and demand curve estimation for Water Distribution System: Theoretical and Experimental cross validation	Sankaranarayanan, S.  Sivakumaran, N.  Radhakrishnan, T.K.  Swaminathan, G.	2020	2020-09-01	2	10.1016/j.conengprac.2020.104544

39.	Seismic performance of semi-rigid steel-concrete composite frames	Senthilkumar, R.  Satish Kumar, S.R.	2020	2020-04-01	2	10.1016/j.istruc.2020.01.046
40.	Finite Element Analysis on Shear Strength of a Castellated Beam with Hexagonal Web Opening	Deepha, R.  Jayalekshmi, S.	2020	2020-12-24	1	10.1088/1757-899X/1006/1/012009
41.	Reduction of wave energy due to monotypic coastal vegetation using response surface methodology (RSM)	Hemavathi, S.  Manjula, R.	2020	2020-12-01	1	10.46488/NEPT.2020.v19i05.021
42.	Deciphering the frozen music in building architecture and vice-versa process	Sendhil, A.  Muthukkumaran, K.  Punniyamoorthy, M.  Veerapandian, S.A.  Sangeetha, G.	2020	2020-05-01	1	10.1007/s11042-019-08316-3
43.	Wave attenuation by heterospecific coastal vegetation-modelling through response surface methodology on synthetic plant meadows	Hemavathi, S.  Manjula, R.	2020	2020-08-10	1	10.18520/cs/v119/i3/497-506
44.	Estimation of flood mitigation parameter for Tiruchirappalli city using Mathematical Relational Model	Surendar, N.  Nisha, R.	2020	2020-07-01	1	-
45.	MECHANICAL PROPERTIES OF A GEOPOLYMER CONCRETE/ULTRAFINE MATERIAL BASED COMPOSITE	Rathanasalam, V.  Perumalsami, J.  Jayakumar, K.	2020	2020-01-01	1	10.17222/mit.2020.072
46.	Improved Security Schemes for Efficient Traffic Management in Vehicular Ad-Hoc Network	Sankaranarayanan, M.  Mala, C.  Mathew, S.	2020	2020-01-01	1	10.1007/978-981-15-9609-4_10
47.	Numerical Studies on Coir Geotextile Reinforced Flexible Pavement	Anusudha, V.  Sunitha, V.  Babu, C.  Bhole, C.R.  Mathew, S.	2020	2020-01-01	1	10.1007/978-3-030-48679-2_59
48.	Removal of rose bengal dye from aqueous solutions using biosorbent obtained from mangifera indica	Aswin Sriram, G.  Swaminathan, G.	2020	2020-01-01	1	-
49.	Enhancing the nitrogen removal of vertical flow constructed wetland by using organic media	Soundaranayaki, K.  Gandhimathi, R.	2020	2020-01-01	1	10.5004/dwt.2020.24927
50.	Coastal shallow aquifer characterization in Tiruchendur coastal district of Tuticorin, Tamil Nadu, India utilizing geophysical and geochemical approaches	Govindaraj, S.  Renganathan, M.	2020	2020-01-01	0	10.1016/j.matpr.2020.10.522
51.	A Study on the Consolidation and Permeability Behaviour of Soils of State of Tamil Nadu, India	Jayalekshmi, S.  Elamathi, V.	2020	2020-12-24	0	10.1088/1757-899X/1006/1/012017
52.	A Review on Correlations for Consolidation Characteristics of Various Soils	Jayalekshmi, S.  Elamathi, V.	2020	2020-12-24	0	10.1088/1757-899X/1006/1/012007

53.	Numerical Analysis of Laterally Loaded Pile Under Cyclic Loading	Deendayal, R.  Nigitha, D.  Krishnanunni, K.T.	2020	2020-01-01	0	10.1007/978-981-15-6086-6_82
54.	Wave attenuation by coastal vegetation - An Empirical study on synthetic models	Hemavathi, S.  Manjula, R.	2020	2020-07-01	0	-
55.	Household structure and the travel pattern of senior citizens for leisure trips	Priya, G.N.  Mathew, S.  Subbaiyan, G.	2020	2020-01-01	0	10.1007/978-981-32-9042-6_26
56.	Structural Assessment of Cyclone Hudhud in Vizag, Andhra Pradesh	Chen, S.-E.  Murugan, B.  Sai, R.  Satyanarayana, P.  Waran, L.  Kumar, S.  Alhaider, I.  Natarajan, C.  Calvo, J.  Janardhanam, R.	2020	2020-10-01	0	10.1061/(ASCE)CF.1943-5509.0001499
57.	Study of trend of rainfall data: A case study of Koraiyar basin, Tamil Nadu	Surendar, N.  Nisha, R.	2020	2020-11-01	0	-
58.	Numerical modelling and laboratory observation for wave attenuation by coastal vegetation	Hemavathi, S.  Manjula, R.	2020	2020-01-01	0	-