

## CURRICULUM VITAE

**Dr. J. Jegan**

**Professor**

**Department of Civil Engineering**

**University College of Engineering Ramanathapuram**

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➤ **Research Area:**

- Biodegradation of hydrocarbons
- Dye / metal removal using waste materials
- Adsorption studies and modelling
- Environmental Impact Assessment
- Municipal solid waste management
- Nano materials in construction

➤ **Educational Qualifications:**

<b>Qualification</b>	<b>College/University</b>	<b>Year (From -To)</b>	<b>Percentage</b>	<b>Class</b>
Ph.D. (Civil Engineering)	Anna University	2000-2004	NA	NA
M.E. (Environmental Engg.)	Bharathiyar University	1997-1999	61	First
B.E. (Civil Engineering)	Bharathiyar University	1994-1997	63	First
Diploma	Seshasayee Institute of Technology, Trichy	1991-1994	74	First

➤ **Experience:**

<b>Name of Company / Institutions</b>	<b>Designation of Post</b>	<b>From</b>	<b>To</b>	<b>Experience in Year</b>
UCE BIT Campus, Tiruchirappalli	Professor	01-7-2023	Till date	--
UCE, Ramanathapuram	Professor	31-8-2015	30-06-2023	7 years 10 months 1 day

UCE, Ramanathapuram	Associate Professor	31-08-2012	30-08-2015	3 years
UCE, Ramanathapuram	Assistant Professor (GIII)	31-08-2009	30-08-2012	3 years
Caledonian College of Engineering, Oman	Lecturer	17-10-2007	30-08-2009	1 year 10 months 22 days
Sri Venkateswara College of Engineering, Sriperumbudur	Assistant Professor	01-06-2005	16-10-2007	2 years 4 months 15 days
	Lecturer	10-03-2004	31-05-2005	1 year 2 months 21 days
A.C.Tech., Anna University	Senior Research Fellow	01-12-2001	09-03-2004	2 years 3 months 10 days
	Full time research scholar	28-12-1999	31-11-2001	1 year 11 months 4 days

➤ **Awards:**

1. 2011-2012 Grant received from Tamilnadu State Council for Science and Technology (TNSCST) under Student Project Scheme (SPS)
2. 2000 – 2004 Awarded Senior Research Fellowship by Council of Scientific and Industrial Research, Government of India
3. 1996-1997 Awarded Best Student Project at Undergraduate level in Civil Engineering Department, Kongu Engineering College

➤ **Additional / Academic Responsibilities at University:**

1. Dean of Anna University, University College of Engineering Ramanathapuram from 20-03-2020 to 14-06-2023.
2. Dean in charge of Anna University, University College of Engineering Ramanathapuram for nearly 10 months (in 2 spells) during 2010 and 2011.

3. Member of Board of studies to Department of Civil Engineering, Sri Krishna College of Engineering and Technology Coimbatore as Anna University nominee.
4. Head of the Department, Department of Civil Engineering, University College of Engineering Ramanathapuram from August 2009 to January 2020.
5. Member of Board of studies to Department of Civil Engineering, Hindustan College of Engineering and Technology Coimbatore as Subject expert.
6. Chief Superintendent for University examinations during 2010-2013.
7. Established various laboratories at University College of Engineering Ramanathapuram
8. PG (M.E. – Environmental Engineering) Board of studies member at Anna University of Technology Madurai during 2010-2012.
9. Chairperson/Chief examiner in the Anna University central valuation at zone XIV- ACCET, Karaikudi
10. Question paper setter for Anna University (UG) examinations and Sathyabama University (UG/PG).

➤ **Membership of Scientific and Professional Societies:**

1. Life Member of Institution of Public Health Engineers, India – 2014 (LM 1588)
2. Chartered Engineer (India) – 2012 (M-140536-5)
3. Life Member of Indian Water Works Association- 2010
4. Member of International Association of Engineers – 2009 (M 103997)
5. Life Member of Institution of Engineers (India) – 2009 (M-140536-5)
6. Life Member of India Society of Technical Education- 2009 (LM 65186)

➤ **Fellowships and Grants:**

- a) Received a grant of Rs. 6000/- from Tamilnadu State Council for Science and Technology (TNSCST) under Student Project Scheme (SPS) for the project title “*Energy saving light weight bricks by using recycled paper pulp*” by V. Agilan.

b) Awarded Senior Research Fellowship by Council of Scientific and Industrial Research, Government of India during 2001-2004.

➤ **Completed B.E/M.E Projects:**

- a. Number of ME Projects Completed: 28 Nos
- b. Number of BE Project Completed: 51 batches

➤ **PhD Research Projects (Completed):**

<b>Sl. No</b>	<b>Name of the scholar</b>	<b>Title of the thesis</b>	<b>Year of registration</b>	<b>Date of viva voce</b>
1.	J Vijayaraghavan	Evaluation of red seaweed as biosorbents for removal of dyes from aqueous solutions	2011	12-01-2016
2.	G Lavanya	Strength, durability and structural properties of high calcium fly ash based geopolymer concrete	2011	30-12-2016
3.	Elliss Yogesh R *	Advanced oxidation of tannery wastewater for COD reduction	2009	24-01-2018
4.	R.Gokulan *	Remediation of Remazol dyes from single solute and effluent solutions using biochars derived from different green seaweeds	2015	12-11-2019
5.	M Ancheeswari	Performance Evaluation of BFRP strengthened and Rehabilitated RC Columns under Axial Loading	2012	09-07-2020
6.	S Praveen	Biodecolorization of Cationic dyes by Biochar derived from agricultural wastes an Low Cost Adsorbents	2017	30-09-2020
7.	G Cibilakshmi	An experimental investigation to study the influence of nano composites on conventional and PVA fibre reinforced concrete	2018	03-02-2021

8.	S.Balasubramanian	Strengthening of concrete filled steel tubular structures by carbon fiber reinforced composites	2023	16-05-2023
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\*Joint Supervisor

➤ **PhD Research Projects (Ongoing):**

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	S Jayaganesh	Effects of concentric partial (local) compression on the structural behaviour of concrete filled steel tubular (CFST) column	2011	Thesis submitted
2.	A Ramakrishnan	A Study On The Utilization Of Waste Materials In Concrete	2015	Thesis submitted
3.	S Shyam sundar	Modified Oxidation Process For Distillery Wastewater Treatment	2017	On going
4.	P.Anitha	Experimental investigation of thermal performance of wall panels incorporating phase change materials	2023	Course work
5.	S.M.Manikandan	A study on removal and recovery of heavy metals from wastewater using various hybrid biosorbents and industrial byproducts	2023	Course work

➤ **Publications:**

**a. Books / book chapters:**

1. **J.Jegan** & R.Parthiban, “*Bacterial growth kinetics and degradation of polycyclic aromatic hydrocarbons*”, VDM Verlag Dr. Muller GmbH & Co., Germany, ISBN: 978-3-639-33565-1, 2011.

2. T. Bhagavathi Pushpa & **J. Jegan**, “*Biodecolorization of dyes using low cost adsorbents*” published by Lap Lambert Academic Publishing, Germany, ISBN 978-3-659-86755-2, 2016.
3. **J. Jegan** & J. Vijayaraghavan, “*Adsorptive removal of Basic dyes*” published by Lap Lambert Academic Publishing, Germany, ISBN 978-3-659-92273-2, 2016.
4. G. Lavanya & **J. Jegan**, “*Strength, Durability and Structural properties of Geopolymer Concrete*”, published by Lap Lambert Academic Publishing, Germany, ISBN 978-613-7-42603-6, 2018.

**b. International Journals:**

1. Ramakrishnan. A, & Jegan. J, 2023, “Surface modified synthetic plastic aggregate for concrete – Experimental and Analytical studies”, *Material Science*, Vol.29, no. 1, <https://doi.org.10.5755/j02.ms.31124>
2. Greesan. R, Jegan J, Kannaki S, Dineshkumar S & Kayalvizhi A, 2023, “Investigations on ZnO reinforced composite materials for electronic applications – A review”, *Materials Today: Proceedings*, Vol. 74, no.1, <https://doi.org/10.1016.j.matpr.2022.11.018>
3. Praveen S, **J Jegan**, T Bhagavathi Pushpa, R Gokulan and Bulgairu L, 2022, “Biochar for removal of dyes in contaminated water: an overview”, *Bochar*, Vol. 4(1), <https://doi.org/10.1007/s42773-022-00131-8>
4. Praveen, J Jegan and T Bhagavathi Pushpa, 2021, “A comprehensive analysis of biosorptive removal of basic dyes by different biosorbents”, *Environmental Nanotechnology, Monitoring & Management*, Vol. 16, <https://doi.org/10.1016/j.enmm.2021.100560>
5. S Praveen, R Gokulan, T Bhagavathi Pushpa, **J Jegan**, 2021, “Techno-economic feasibility of biochar as biosorbent for basic dye sequestration” *Journal of the Indian Chemical Society*, Vol. 98, no. 08, <https://doi.org/10.1016/j.jics.2021.100107>
6. Praveen S, **Jegan J**, Bhagavathi Pushpa T & Gokulan R 2021 “Evaluation of the adsorptive removal of cationic dyes by greening biochar derived from agricultural

- bio-waste of rice husk”, *Biomass Conversion and Biorefinery*, <https://doi.org/10.1007/s13399-021-01415-y>
7. Praveen S, **Jegan J**, Bhagavathi Pushpa T & Gokulan R 2021 “Artificial neural network modelling for biodecolorization of Basic Violet 03 from aqueous solution by biochar derived from agro-bio waste of groundnut hull: Kinetics and thermodynamics”, *Chemosphere*, vol. 276, 130191, <https://doi.org/10.1016/j.chemosphere.2021.130191>
  8. Bhagavathi Pushpa Thillainayagam, Praveen Saravanan, R Gokulan & **Jegan J** 2021 “Continuous sorption of methylene blue dye from aqueous solution using effective microorganisms-based water hyacinth waste compost in a packed column”, *Biomass Conversion and Biorefinery*, Vol.13, <https://doi.org/10.1007/s13399-020-01208-9>
  9. **Jegan J**, Praveen S, Muthu Kumar B, Bhagavathi Pushpa T & Gokulan R 2021 “Box–Behnken Experimental Design for the Optimization of Basic Violet 03 Dye Removal by Groundnut Shell derived Biochar” *Desalination and Water Treatment*, vol. 209, <https://doi.org/10.5004/dwt.2021.26495>
  10. S.Balasubramanian, **J.Jegan** and M.C.Sundarraja, 2020, “ANFIS-Based Accurate Estimation of the Confinement Effect for Concrete-Filled Steel Tubular (CFST)”, *International Journal of Fuzzy Systems*, vol.22, <https://doi.org/10.1007/s40815-020-00902-0>
  11. Praveen S, Bhagavathi Pushpa T, Gokulan R & **Jegan J** 2020 “Evaluation of the adsorption capacity of Cocos Nucifera shell derived biochar for basic dyes sequestration from aqueous solution” *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, [doi.org/10.1080/15567036.2020.1800142](https://doi.org/10.1080/15567036.2020.1800142)
  12. **J. Jegan**, S. Praveen, T. Bhagavathi Pushpa, R. Gokulan, “Biodecolorization of Basic Violet 03 using Biochar derived from Agriculture wastes: Isotherm and kinetics”, *Journal of Biobased Materials and Bioenergy*, Vol.14, 2020, <https://doi.org/10.1166/jbmb.2020.1969>
  13. **J. Jegan**, S. Praveen, T. Bhagavathi Pushpa, R. Gokulan, “*Sorption kinetics and isotherm studies of cationic dyes using ground nut (Arachis hypogaea) shell derived biochar A low-cost adsorbent*”, *Applied Ecology and Environment Research*, Vol., 2020, [https://doi.org/10.1566/aecer/1801\\_19251939](https://doi.org/10.1566/aecer/1801_19251939)

14. R. Gokulan, G. Ganesh Prabhu, A. Avinash, **J. Jegan**, “*Experimental and Chemometric analysis of bioremediation of remozal dyes using biochar derived from green seaweeds*” *Desalination and Water Treatment*, Vol. 4, 2019, <https://doi:10.5004/dwt.2020.25339>
15. G. Cibilakshmi, **J. Jegan**, “*A DOE approach to optimize the strength properties of concrete incorporated with different ratios of PVA fibre and nano-Fe<sub>2</sub>O<sub>3</sub>*”, *Advanced Composites letters*, Vol. 29, 2020, <https://doi:10.1177/2633366x20913882>
16. K. Suresh kumar, K. Shanthi, N.R.Sasirekha, **J. Jegan**, S.J. Sardhar Basha, “*A study on catalytic activity of modified Ni-Re/Al-SBA-15 catalyst for hydrodenitrogenation of o-toludine*”, *International Journal of Hydrogen Energy*, Vol. 45, 2020, <https://doi.org/10.1016/j.ijhydene.2019.11.171>
17. G. Cibilakshmi, **J. Jegan**, “*Effect of nanocomposites on the strength and durability properties of cement mortar*”, *Ciência e Tècnica Vitivincola*, Vol. 35(1), 2020, pp. 2-15.
18. T. Bhagavathi Pushpa, **J. Jegan**, S. Praveen, R. Gokulan, “*Biodecolourization of Basic Blue 41 using EM based composts: Isotherm and Kinetics*”, *Chemistry Select*, Vol. 4, 2019, <https://doi:10.1002/slct.201901774>
19. R. Gokulan, G. Ganesh Prabhu, **J. Jegan**, A. Avinash, “*A Critical insight into biomass derived biosorbent for bioremediation*” *Chemistry Select*, Vol. 4, 2019, <https://doi:10.1002/slct.201902127>
20. K. Suresh kumar, K. Shanthi, N.R.Sasirekha, **J. Jegan**, S.J. Sardhar Basha, “*A detailed investigation on rhenium loaded SBA-15 supported catalyst for hydrodenitrogenation reaction of cyclohexylamine*”, *Journal of Porous materials*, DoI: 10.1007/s10934-019-00793-z.
21. R. Gokulan, G. Ganesh Prabhu, **J. Jegan**, A. Avinash, “*Remediation of remozal dyes by biochar derived from Caulerpa Scalpelliformis – An eco friendly approach*” *Journal of Environmental Chemical Engineering*, Vol. 7(5), 103297. <https://doi.org/10.1016/j.jece.2019.103297>
22. R. Gokulan, J. Raja Murugadoss, **J. Jegan**, A. Avinash, “*Comparative desorption studies on remediation of remozal dyes using biochar (sorbent) derived from green marine seaweeds*” *Chemistry select*, Vol. 4(25), 2019, <https://doi:10.1002/slct.201901348>



23. R. Gokulan, G. Ganesh Prabhu, **J. Jegan**, “*Remediation of complex removal effluent using biochar derived from green seaweed biomass*” International Journal of Phytoremediation, Vol. 21(12), 2019, <https://doi:10.1080/15226514.2019.1612845>
24. R. Gokulan, G. Ganesh Prabhu, **J. Jegan**, “*A novel sorbent Ulva lactuca-derived biochar for remediation of Remazol Brilliant Orange 3R in packed column*” Water Environment Research, Vol. 91(7), 2019, <https://doi:10.1002/wer.1092>
25. S. Umarajeswari, R. Ilangovan, S. Saravanan, **J. Jegan**, “*A review on reservoir capacity loss due to sedimentation studies using remote sensing technique*”, International Journal for Innovative Research in Multidisciplinary Field, Vol. 4(12), 2018, pp. 80-84.
26. Suresh kumar, K. Shanthi, N.R.Sasirekha, **J. Jegan**, S.J. Sardhar Basha, “*Enhanced catalytic activity of Ni-Re/H- AIMCM-41 catalyst via surface modification for hydrodenitrogenation of o-toluidine*”, Materials Research Express, Vol.5(6), 2018, <https://doi:10.1088/2053-1591/aac98d>
27. S. Praveen, **J. Jegan**, T. Bhagavathi Pushpa, “*Air Quality Index for development of Environmental Impact Assessment of the port development at beypore*”, Indian Journal of Ecology, Vol. 45(4), 2018, pp. 768-773.
28. **J. Jegan**, T. Bhagavathi Pushpa, S. Praveen, B. Nithyalakshmi, “*Kinetic modelling of growth on biodegradation of naphthalene using Rhodococcus Sp.*”, Ecology, Environment and Conservation, Vol.24(3), 2018, pp.1355-1361.
29. S. Anandhaprabhu, **J. Jegan**, “*Partial replacement of cement by silica fume in pervious concrete*”, International Journal of Innovative Research Explorer, Vol.5(5), 2018, pp. 186-192.
30. **J.Jegan**, B. Sriram, “*Replacement of cement by granite powder in paver blocks*”, International Research Journal of Engineering and Technology, Vol.5(6), 2018, pp. 1680-1683.
31. S. Praveen, **J. Jegan**, “*Air Quality Index (AQI) for development of Environmental Impact Assessment (EIA) reports of urban infrastructural projects in Coimbatore city*”, Nature Environment and Pollution Technology, Vol. 17(1), 2018, pp. 323-328.

32. M.Ancheeswari, **J. Jegan**, “*Improvement on axial compressive strength of concrete cylinders using BFRP composites*”, Journal of Structural Engineering, Vol. 44(6), 2018, pp. 545-551.
33. S.Praveen, T.Bhagavathi Pushpa, **J.Jegan**, “*Challenges in integration of climate change considerations on Environmental Impact Assessment practices*”, International Journal of ChemTech Research. 10(8), 2017, pp. 65-73.
34. G.Lavanya, **J.Jegan**, S.Aravindan, “*Seismic Effectiveness of Tall Buildings with Shear wall and TMD’s at various locations*”, International Journal of Printing, Packaging & Allied Sciences, Vol.5(1), 2017, pp.368-376.
35. S.Balasubramanian, **J.Jegan**, M.C.Sundarraja, “*Behavior of FRP strengthened CFST slender members – An analytical investigation*”, International Journal of latest Engineering Research and Applications, Vol. 2(2), 2017, pp.39-44.
36. **J.Jegan**, G.R.Jeya Shankar, T. Bhagavathi Pushpa, “*Substrate inhibition kinetics: Naphthalene degradation by pseudomonas putida*”, Journal of Environment and Biotechnology Research, Vol. 2(2), 2016, pp. 17-23.
37. Vijayaraghavan, T. Bhagavathi Pushpa, **J.Jegan**, “*Biosorption: A treatment technique to clean-up polluted wastewater*”, Tamil Journal of Science, Engineering and Technology, Vol. 1(1), 2016, pp. 2-24.
38. S.Praveen, **J.Jegan**, “*Investigation of proposed infrastructure developments in Beypore port, using Rapid Impact Assessment Matrix (RIAM)*”, International Research Journal of Environmental Sciences, Vol. 5(11), 2016, pp. 56-64.
39. T.Bhagavathi Pushpa, **J.Jegan**, S.Praveen, “*Utilization of Biomass in Environs – A Review*”, International Journal of Advances in Interdisciplinary Research”, Vol. 3(7), 2016, pp. 21-26.
40. **J.Jegan**, G.Tamizharasan, “*Experimental study on manufacturing of bricks using magnesite soil*”, International Journal of Advanced Engineering Research and Technology, Vol. 4(4), 2016, pp. 68-72.
41. **J.Jegan**, J. Vijayaraghavan, T. Bhagavathi Pushpa, S.J.Sardhar Basha, “*Application of seaweeds for the removal of cationic dye from aqueous solution*”,

Desalination and Water Treatment, Vol. 57 (53), 2016, <https://doi:10.1080/19443994.2016.1151835>.

42. **J.Jegan**, J. Prasath, “*Behaviour of build-up cold formed steel sections*”, International Journal of Advanced Engineering Research and Technology, Vol. 4(4), 2016, pp. 83-86.
43. **J.Jegan**, S.Suriyamoorthy, “*Workability and strength studies on Self Compacting Concrete with Ground Granulated Blast Furnace Slag and Manufactured sand*”, International Journal of Advanced Engineering Research and Technology, Vol. 4(4), 2016, pp. 92-96.
44. G. Lavanya, **J. Jegan**, “*Structural behavior of high calcium flyash based geopolymer concrete beam*”, International Journal of Advance Engineering and Research Development, Vol. 3(3), 2016, pp. 109-115.
45. G. Lavanya, **J. Jegan**, “*Finite element modeling of high calcium fly ash based geopolymer concrete beam*”, International Journal of Earth Sciences and Engineering, Vol. 9 (01), 2016, pp-202-206.
46. **J.Jegan**, M.Sathish, “*Experimental study on high strength and low shrinkage concrete*”, International Journal of Advanced Engineering Research and Technology, Vol. 4(4), 2016, pp. 80-82.
47. Vijayaraghavan, T. Bhagavathi Pushpa, S.J.Sardhar Basha, K. Vijayaraghavan, **J.Jegan**, “*Isotherm, kinetics and mechanistic studies of methylene blue biosorption onto red seaweed Gracilaria corticata*”, Desalination and water treatment, Vol. 57 (29), 2016, <https://doi:10.1080/19443994.2015.1060174>.
48. K.Vijayaraghavan, Y. Prekumar, **J. Jegan**, “*Malachite green and crystal violet biosorption onto coco peat: characterization and removal studies*” Desalination and Water Treatment, Vol. 57 (14), 2016, <https://doi.org.10.1080/19443994.2015.1011709>.
49. T. Bhagavathi Pushpa, V.Sekaran, S.J.Sardhar Basha, **J.Jegan**, “*Investigation on Preparation, Characterization and Application of EM based Composts – An*

- Ecofriendly solution*”, Nature Environment and Pollution Technology, Vol. 15(1), 2016, pp-153-158.
50. K.Vijayaraghavan, **J.Jegan**, “*Entrapment of brown seaweeds (Turbinaria conoides and Sargassum wightii) in polysulphone matrices for the removal of praseodymium ions from aqueous solutions*”, Journal of rare earths, Vol. 33 (11), 2016, [https://doi.org/10.1016/s1002-0721\(14\)60546-9](https://doi.org/10.1016/s1002-0721(14)60546-9).
  51. T. Bhagavathi Pushpa, J. Vijayaraghavan, K. Vijayaraghavan, **J.Jegan**, “*Utilization of Effective Microorganisms based water hyacinth compost as biosorbent for the removal of basic dyes*”, Desalination and Water Treatment, Vol. 57 (51), 2016, <https://doi.org/10.1080/19443994.2016.1143405>.
  52. J. Vijayaraghavan, T. Bhagavathi Pushpa, S.J.Sardhar Basha, K. Vijayaraghavan, **J.Jegan**, “*Evaluation of red marine alga Kappaphycus alvarezii as biosorbent for methylene blue: isotherm, kinetic and mechanism studies*”, Separation Science and Technology, Vol. 50(8), 2015, <https://doi.org/10.1080/01496395.2014.965260>.
  53. T. Bhagavathi Pushpa, J. Vijayaraghavan, S.J.Sardhar Basha, V.Sekaran, **J.Jegan**, “*Experimental study on EM based Leaf waste Compost onto Malachite Green Removal*”, International Journal of Applied Engineering Research, Vol. 10(3), 2015, pp-6547-6556.
  54. S. Praveen, D. Jayakumari, S. Rajakumar, **J.Jegan**, “*Issues, Challenges and risks in investing public water transportation system of Kochi*”, International Journal of Engineering and Advanced Technology, Vol. 04 (05), 2015, pp-39-43.
  55. P. Kiruthika, S. Balasubramanian, M.C. Sundarraja, **J. Jegan**, “*Strengthening of concrete filled steel tubular columns using FRP composites*”, International Journal of Innovative Research in Science, Engineering and Technology, Vol. 04 (04), 2015, pp-2250-2259.
  56. S. Praveen, T. Bhagavathi Pushpa, **J.Jegan**, “*Utilization of textile effluent waste sludge in brick*”, International Journal for Technological Research in Engineering, Vol. 02 (12), 2015, pp-3103-3107.

57. S. Praveen, S. Rajakumar, T. Bhagavathi Pushpa, **J.Jegan**, “A case study on inland water transportation system in Kochi city region”, International Journal for Technological Research in Engineering, Vol. 02 (11), 2015, pp-2802-2806.
58. Lavanya, **J. Jegan**, “Evaluation of relationship between split tensile strength and compressive strength for geopolymer concrete of varying grades and molarity”, International Journal of Applied Engineering Research, Vol. 10(15), 2015, pp-35523-35527.
59. S.Praveen, **J.Jegan**, “Key issues & Challenges for Inland water Transportation network in India”, International Journal of Scientific Research & Development, Vol. 3(10), 2015, pp. 653-658.
60. S. Balasubramanian, M.C. Sundarraja, **J. Jegan**, “Strengthening of (CFST) column by using FRP sheet under cyclic loading”, International Journal of Applied Engineering Research, Vol. 10 (77), 2015, pp-401-411.
61. Lavanya, **J. Jegan**, “Compressive strength development with environment friendly geosynthetic materials”, International Journal of Earth Sciences and Engineering, Vol. 8 (05), 2015, pp-256-258.
62. Lavanya, **J. Jegan**, “Durability study on high calcium fly ash based geopolymer concrete”, Advances in Material Science and Engineering, DOI: 10.1155/2015/731056.
63. **Jayaganesh, S**, Jegan, J, Raja murugadoss, J & Ganesh Prabhu, G, “Behaviour of concrete filled steel tubular (CFST) column under axial compression”, International Journal of Applied Engineering Research, Vol. 10, no.47, 2015, pp. 32265-32271.
64. T. Bhagavathi Pushpa, J. Vijayaraghavan, S.J.Sardhar Basha, V.Sekaran, **J.Jegan**, “Investigation on removal of malachite green using EM based compost as adsorbent”, Ecotoxicology and Environmental safety, Vol. 118, 2015, <https://doi.org/10.1016/j.ecoenv.2015.04.033>.
65. S. Jayaganesh, J. Raja Murugadoss, G. Ganesh Prabhu, **J. Jegan**, “Effects of concentric partial (local) compression on the structural behavior of concrete filled

*steel tubular column*”, Advances in Material Science and Engineering, DOI: 10.1155/2015/491038

66. Vijayaraghavan, T. Bhagavathi Pushpa, S.J.Sardhar Basha, K. Vijayaraghavan, **J.Jegan**, “*Removal of a basic dye from aqueous solution by Gracilaria corticata*”, Journal of Environment and Biotechnology Research, Vol. 01 (01), 2015, pp-30-36.
67. G.Lavanya, S.Aravindan, **J.Jegan**, “*Study on the workability and compressive strength of alkali activated flyash concrete*” International Journal of Civil Engineering and Applications, Vol. 3(3), 2013, pp-10-15.
68. Jayganesh, **J.Jegan**, P. Mariappan, “*Impact of staging height of service reservoir in the installation cost of water supply scheme-A case study*”, International journal of Civil Engineering and Technology, Vol. 4(5), 2013, pp-181-190.
69. M. Chockalingam, D. Jayganesh, J.Vijayaraghavan, **J.Jegan**, “*Scope for reuse of copper slag in concrete – A Review*” International journal of Civil Engineering and Technology, Vol. 4(6), 2013, pp-89-100.
70. J. Vijayaraghavan, S.J.Sardhar Basha, **J.Jegan**, “*A review on efficacious methods to decolorize reactive azo dye*” Journal of Urban and Environmental Engineering, Vol. 7(1), 2013, <https://doi.org/10.4090/juee.2013.v7n1.030047>.
71. R.Senthilkumar, **J.Jegan**, P.V.R.Iyer, M.Velan, “*Modified crab shell particles for the removal of lead [II] ions from aqueous solutions*”, Int. J. Environment and Waste Management, Vol.9 (3/4), 2012, <https://doi.org/10.1504/ijewm.2012.046389>.
72. **J.Jegan**, K. Vijayaraghavan, R. Senthilkumar, M. Velan, “*Naphthalene degradation kinetics of Micrococcus sp., isolated from activated sludge*” Journal of Clean- Soil Air Water, Vol. 38(9), 2010, <https://doi.org/10.1002/clen.200900148>.
73. R. Senthikumar, K. Vijayaraghavan, **J. Jegan**, M. Velan, “*Batch and column removal of total chromium (VI) from aqueous solution using Sargassum polycystum*” Journal of Environmental Progress & Sustainable Energy, Vol. 29(3), 2010, <https://doi.org/10.1002/ep.10416>.

74. K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Nickel Recovery from aqueous solutions using Crab shell particles*”, Adsorption Science and Technology, Vol. 23 (4), 2005, <https://doi.org/10.1260.0263617054770002>.
75. K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Batch and Column Removal of Copper from aqueous solution using a Brown Marine Alga Turturdinaria Ornata*”, Chemical Engineering Journal, Vol.106 (2), 2005, <https://doi.org/10.1016/j.cej.2004.12.039>.
76. K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Biosorption of Cobalt (II) and Nickel (II) by Sea Weeds: Batch and Column Studies*”, Separation and Purification Technology, Vol. 44, 2005, <https://doi.org/10.1016/j.seppur.2004.12.003>.
77. K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Removal and recovery of copper from aqueous solution by egg shell in a packed column*”, Minerals Engineering, Vol.18 (5), 2005, <https://doi.org/10.1016/j.mineng.2004.09.004>.
78. K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Biosorption of Copper, Cobalt and Nickel by Marine green Alga Ulva reticulata in a Packed Column*”, Chemosphere, Vol.60, 2005, <https://doi.org/10.1016/j.chemosphere.2004.12.016>.
79. K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Removal of Nickel (II) ions from aqueous solution using Crab shell particles in a Packed Upflow Column*”, Journal of Hazardous Materials B, Vol. 113 (1-3), 2004, <https://doi.org/10.1016/j.hazmat.2004.06.014>.
80. K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Copper removal from aqueous solution by marine alga Ulva reticulata*”, Electronic Journal of Biotechnology, Vol. 7 (1), 2004, <https://doi.org/10.4067/s0717-34582004000100009>.

**c. National Journals:**

- 1) **J.Jegan**, R.Prabhakaran, C.A.Basha, “*Electrochemical Oxidation of Distillery Effluent*”, Indian Journal of Environmental Protection, Vol. 22 (1), 2002, pp- 33-36.

- 2) T. Bhagavathi Pushpa, **J. Jegan**, “*Management of organic solid wastes: Effective Microorganism based composting – A sustainable option*”, Journal of the Institution of Public Health Engineers, India, Vol. 2015-16, No. 1, 2015, pp. 8-12.

**d. Patents:**

1. Preparation of Bio-Green Adsorbent of EM Based Kitchen Waste Compost and Water Hyacinth Waste Compost (Indian Patent Application Number: 202041032680 and published in The Patent Office Journal No. 33/2020 Dated 14/08/2020 Page Number 31285)

➤ **Consultancy Activities:**

<b>Sl.No</b>	<b>Name of the work</b>	<b>Role (PI/Co PI)</b>	<b>Agency</b>	<b>Amount</b>	<b>Duration</b>
1	Environmental Monitoring on water and soil quality and creating awareness and updating of environmental and social assessment report for Uthirakosamangaiyar, Vembar, Kanalodai, Lower Gundar and Palar subbasins (funded by World Bank)	Principal consultant	Tamilnadu Public Works department	16.5	Completed
2	Design and Detailed drawing of NINE hostel buildings	Principal consultant	Tamil Nadu Adi-Dravidar Housing Development Corporation, Government of Tamil Nadu	1.23	Completed
3	Soil investigation,	Principal	District	0.1	Completed



	Design and detailed drawing of residential quarters for Project Director, DRDA, Sivaganga	consultant	Rural Development Agency, Government of Tamil Nadu		
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➤ **List of Seminar / Short Term Course /FDP/ Workshop attended:**

- a) Attended Two weeks TEQIP II sponsored Faculty development programme (2016) on “*Prefabricated Structures*” organized by Anna University, Bharathidasan Institute of Technology, Tiruchirappalli from 4<sup>th</sup> to 17<sup>th</sup> June (14 days).
- b) Participated in one day workshop (2015) on “*Simplified planning design procedure for residential and industrial building and effective drainage systems*” organized by University College of Engineering Rajamadam, Pattukottai, on 30<sup>th</sup> September (1 day).
- c) Participated in AICTE sponsored Faculty Development Programme (2015) on “*Contemporary Research and Practices in Pollutant Elimination Systems towards Cleaner Environment*” organized by Sri Venkateswara College of Engineering, Sriperumbudur from 20<sup>th</sup> to 26<sup>th</sup> May (7 days).
- d) Attended one week TEQIP II sponsored Faculty development programme (2015) on “*Application of GIS and remote sensing*” organized by Anna University, Bharathidasan Institute of Technology, Tiruchirappalli from 24<sup>th</sup> to 30<sup>th</sup> April (7 days).
- e) Participated in Centre for Faculty Development, Anna University, Chennai sponsored Faculty development training programme (2014) on “*CE6302-Mechanics of Solids*” organized by University VOC College of Engineering Thoothukudi from 23<sup>rd</sup> to 30<sup>th</sup> June (7 days).
- f) Attended a 7 days Faculty Development Training Program (2012) on “*Construction Planning and Scheduling*” organized by Department of Civil Engineering, University College of Engineering Ramanathapuram funded by Centre for Faculty Development, Anna University Chennai from 17<sup>th</sup> to 23<sup>rd</sup> December (7 days).
- g) Participated in two days Faculty development programme (2011) on “*Discrete and fuzzy mathematics*”, organized by Anna University of Technology Madurai, Ramanathapuram campus on 7 & 8<sup>th</sup> April (2 days).

- h) Participated in the one day seminar (2008) on “*Waste Management*” organized by Department of Chemical Engineering, A.C.College of Technology, Chennai in collaboration with Association for Waste Management and Remediation of Environment, Kalpakkam on 9<sup>th</sup> February (1 day).
- i) Attended a Teacher Training program (2006) on “*Renewable Energy Technologies for Engineering and Educational Institutions*” organized by Ministry of Non-Conventional Energy sources, Chennai on 3<sup>rd</sup> to 5<sup>th</sup> August ( 3 days).
- j) Organized a National level Two days workshop (2005) on “*Recent Technological Aspects for Sustainable Environment*” organized by Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur, Tamil Nadu on 3<sup>rd</sup> and 4<sup>th</sup> February (2 days).
- k) Attended a Workshop (2004) on “*Industrial Safety and Risk Management*”, organized by Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.

➤ **National / International Conferences organized / Participated:**

1. K. Sureshkumar, S.J. Sardhar Bashaa, **J. Jegan** and K. Shanthi, “*Effect of Promoter on Re loaded H- AlMCM-41 supported catalysts for Hydrodenitrogenation of o-toluidine*”, International Conference on Nanoscience, Nanotechnology & advanced materials (NANOS-2015), Department of Chemistry, GITAM Institute of Science, during December 14-17 , 2015.
2. K. Suresh Kumar, K. Shanthi, **J. Jegan** and S.J. Sardhar Basha, “*Influence of Si/Zr Ratio on Ni-Re/Zr-SBA-15 Catalysts for Elimination of Environmental Pollutant Nitrogen from Petroleum Crude*”, Advanced Nanomaterials for Energy, Environment and Healthcare Applications (ANEH-2018) at K.S.R. College of Arts and Science for Women K.S.R. Educational Institutions, Tiruchengode, Namakkal - 637215, Tamil Nadu, India, during August 31 & September 1, 2018.
3. **J.Jegan**, M.Ancheeswari, “*Investigation on strength performance of BFRP Jacketed concrete cylinder*”, 4<sup>th</sup> International conference on emerging trends in Engineering & Technology’17 held at Pandiyan Saraswathi Yadav Engineering College, Madurai.

4. T. Bhagavathi Pushpa, J. Vijayaraghavan, S.J.Sardhar Basha, V.Sekaran, **J.Jegan**, “*Experimental study of EM based leaf waste compost onto malachite green removal*” International conference on Environmental Geotechnics (ICEGEO '14) held at Anna University, Bharathidasan Institute of Technology, Tiruchirappallai.
5. J. Vijayaraghavan, T. Bhagavathi Pushpa, S.J.Sardhar Basha, **J.Jegan**, “*Removal of methylene blue from aqueous solution using Gracilaria corticata*” International conference on Environmental Geotechnics (ICEGEO '14) held at Anna University, Bharathidasan Institute of Technology, Tiruchirappallai.
6. G. Lavanya, **J. Jegan**, “*Compressive strength development with environment friendly geosynthetic materials*”, International conference on Environmental Geotechnics (ICEGEO '14) held at Anna University, Bharathidasan Institute of Technology, Tiruchirappallai.
7. T. Bhagavathi Pushpa, J. Vijayaraghavan, S.J.Sardhar Basha, V. Sekaran, **J. Jegan**, “*Investigation on the removal of malachite green using EM based compost as adsorbent*”, International conference on Green Technology for Environmental Pollution Prevention and Control (ICGTEPC 2014) held at National Institute of Technology Tiruchirappalli
8. P.Balakrishnan, **J.Jegan**, “*A study on high performance concrete with superfine Brucite*”, International conference on Emerging Trends in Engineering & Technology (ICETET '14) held at Pandiyan Saraswathi Yadav Engineering College, Madurai.
9. C.S.Nagarajan, **J.Jegan**, “*An investigation on the performance of Polypropylene fibers and Glass fibers to lightweight cement concrete composite*”, All India conference on Building Materials, Techniques and Management for Sustainable Environment (NCBME-2014) held at K.L.N. College of Information Technology, Madurai in association with The Institution of Engineers (India), Madurai centre.
10. **J.Jegan**, N.Baskaran, “*Strengthening of reinforced concrete (RC) short columns using CFRP strip composites*”, International conference on Emerging Trends in Engineering & Technology (ICETET '14) held at Pandiyan Saraswathi Yadav Engineering College, Madurai.

11. **J.Jegan**, C.S.Nagarajan, “*An investigation on the performance of Polypropylene fibers and Glass fibers to lightweight cement concrete composite*”, International conference on Emerging Trends in Engineering & Technology (ICETET '14) held at Pandiyan Saraswathi Yadav Engineering College, Madurai.
12. G.Lavanya, S.Aravindan, **J.Jegan**, “*Study on the workability and compressive strength of alkali activated flyash concrete*”, International conference on sustainable innovative techniques in Civil and Environmental Engineering held at Jawaharlal Nehru University, New Delhi
13. N.Shanmuga Priya, S.Yamuna Priya, K. Karunakaran, **J.Jegan**, S.J.Sardhar Basha, “*Removal of PARA-Nitroaniline by mesoporous materials as an adsorbent*”, International Conference on Biological Inorganic Chemistry (ICBIC-2013), held at Periyar University, Salem
14. **J.Jegan**, R.Senthilkumar, PVR.Iyer, M.Velan, “*Biosorption of Yellow Reactive dye using fresh water macro algae*”, International Conference on Cleaner Technologies and Environmental Management, ICCTEM '07, held at Pondicherry University, Pondicherry
15. **J.Jegan**, R.Senthilkumar, PVR.Iyer, M.Velan, “*Bacterial Growth Kinetics of Polycyclic Aromatic Hydrocarbon*”, International Conference on Cleaner Technologies and Environmental Management, ICCTEM '07, held at Pondicherry University, Pondicherry
16. R.Senthilkumar, **J.Jegan**, PVR.Iyer, M.Velan, “*Removal of zinc(II) from aqueous solution using crab shell particles*”, International Conference on Cleaner Technologies and Environmental Management, ICCTEM '07, held at Pondicherry University, Pondicherry
17. **J.Jegan**, K.Muthukumar, S.Bindu, M.Velan, “*Hydrodynamic Characteristics of a Three Phase Draft Tube Inverse Fluidized Bed Reactor*”, Second World Engineering Congress 2002, Kuching, Malaysia.
18. G.Lavanya, **J.Jegan**, “*A Greener review on High Calcium flyash based Geopolymer*”, National Conference on Engineering Approach for Sustainable Development, held at

Anna University of Technology Trichirappalli on 27<sup>th</sup> September 2011 (ISBN:9788192112831).

19.K.Vijayaraghavan, **J.Jegan**, K.Palanivelu, M.Velan, “*Biosorption of Cobalt (II) ions on marine macro algae Ulva Reticulata*”, Indian Chemical Engineering Congress, CHEMCON 2004, held at Mumbai.

20.R.Parthiban, **J.Jegan**, G.Sekaran, “*A Mini review of the Recent Trends in High Rate Anaerobic Reactors*”, Indian Chemical Engineering Congress, CHEMCON 2004, held at Mumbai.

➤ **Professional Recognitions:**

- Appointed as Chairman/member of Inspection committee constituted by the Registrar, Anna University for granting of provisional affiliation to various Engineering colleges by Anna University.
- Appointed as a Member of Inspection committee for Research Centre recognition by Anna University, Chennai
- Board of Studies member for various Autonomous Engineering colleges.
- Nominated as a member of Ramanathapuram District level Inspection committee headed by the District Collector, Ramanathapuram for the rules related to construction activities, standard/quality of materials and safety measures in all academic institutes
- Reviewer for the Scientific Journals like Desalination and Water Treatment, Landscape and Urban Planning, Journal of Environmental Biology, International Journal of Phytoremediation, International Research Journal of Environmental Sciences & Toxicology, Journal of Environment, Development and Sustainability, etc.
- Editorial board member for Journal of Environment and Biotechnology Research
- Editorial board member for Tamil Journal of Science, Engineering and Technology

**(A) Guest lectures delivered:**

- a) Inaugurated and delivered a keynote speech for the Civil Engineering students at University College of Engineering Pattukottai during their national level technical symposium on 13-03-2020.
- b) Delivered a motivational speech to the first-year polytechnic students at their inaugural function at Mohamed Sathak Polytechnic College, Killakarai on 9<sup>th</sup> July 2018.
- c) Delivered a keynote speech to DST-SERB sponsored two days National workshop on “Green construction techniques for climate resilient affordable housing” held on 03-10-2017 at KPR Institute of Engineering and Technology, Coimbatore.
- d) Lecture Delivered an invited lecture on “Effective drainage system – Residential buildings” in an one day workshop on ‘simplified planning design procedure for residential and industrial building and effective drainage systems’ held at University College of Engineering Pattukottai, Rajamadam on 30<sup>th</sup> September 2015.
- e) Delivered an invited lecture on “Decolourization of dye effluent” in the AICTE sponsored Faculty Development Programme “*Contemporary Research and Practices in Pollutant Elimination Systems towards Cleaner Environment*” held at Sri Venkateswara College of Engineering, Sriperumbudur on 26<sup>th</sup> May 2013.
- f) Delivered an invited lecture on “Biodegradation of polycyclic aromatic hydrocarbons” in the AICTE sponsored Faculty Development Programme “*Contemporary Research and Practices in Pollutant Elimination Systems towards Cleaner Environment*” held at Sri Venkateswara College of Engineering, Sriperumbudur on 25<sup>th</sup> May 2013.
- g) Delivered a lecture in national level conference on “*Recent trends in e-waste management*” at Mohamed Sathak Engineering College, Killakkarai on 20<sup>th</sup> and 21<sup>st</sup> February 2013.
- h) Delivered a lecture on “*Construction planning*” in the Faculty Development Training Program on “*Construction Planning and Scheduling*” at Department of Civil

Engineering, University College of Engineering Ramanathapuram on 17<sup>th</sup> December 2012.

- i) Delivered a invited lecture on “Environmental Impact Assessment” at Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur on 8<sup>th</sup> January 2011.

**(B) Chairperson for conferences / Seminar / Technical symposia:**

- a) Chaired a session in the International conference on *Recent Developments in Civil and Environmental Engineering* organized by Department of Civil Engineering, Alagappa Chettiar College of Engineering and Technology, Karaikudi on 25<sup>th</sup> October 2016.