

**DEPARTMENT OF CIVIL ENGINEERING**

**HEAD OF THE DEPARTMENT**



**Dr. V. VANDHANA DEVI**

Associate Professor & Head of the Department

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**EDUCATIONAL QUALIFICATION**

<b>Degree</b>	<b>Specialization</b>	<b>Institute/ University</b>	<b>Year</b>	<b>Remarks</b>
<b>Ph.D.</b>	Civil Engineering	College of Engineering, <b>Anna University</b> , Guindy, Chennai	August 2014	Hydrodynamic modeling & GIS
<b>M.E.</b>	Environmental Management	College of Engineering, <b>Anna University</b> , Guindy, Chennai	May 2004	First Class with Distinction
<b>B.E.</b>	Civil Engineering	Crescent Engineering College ( <b>University of Madras</b> )	May 2001	First Class

Title of Ph.D. thesis – “**Integrated Management of Kondurupalem lagoonal inlet on East Coast of India**” (2014)



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**WORK EXPERIENCE:** Teaching Experience: 19 years; Industry Experience: 1 year

Period		Designation	Institute / Organization
From	To		
26.07.2017	Till Date	Associate Professor & HoD	KCG College of Technology, Chennai
08.08.2015	15.07.2017	Associate Professor	B. S. Abdur Rahman Crescent University, Chennai 48
11.05.2012	31.07.2015	Assistant Professor Senior Grade	B. S. Abdur Rahman Crescent University, Chennai 48
01.04.2009	10.05.2012	Assistant Professor	B. S. Abdur Rahman Crescent University, Chennai 48
28.12.2007	31.03.2009	Lecturer	B. S. Abdur Rahman Crescent Engineering College, Chennai 48
14.06.2004	15.12.2007	Lecturer	Tagore Engineering College, Vandalur, Chennai 48
15.10.2001	15.07.2002	Trainee	PWD, Taramani, Chennai 115

**PUBLICATIONS**

**Book Publication**

Air pollution and Control Engineering (2019), Magnus Publications, ISBN 13: 978-81-939626-5-7



## DEPARTMENT OF CIVIL ENGINEERING

### International / National Journal

V. Vandhana Devi , C.K. Akhila “Resilience to climate change and environmental perturbations – road map for Chennai city, India” Materials Today Proceedings, 2023.

E. Pravin Raaj, K. Bhuvaneshwari, R. Lakshmi pathy , **V. Vandhana Devi** and Ivan Leandro Rodriguez Rico, “Garlic Peel Surface Modification and Fixed-Bed Column Investigations towards Crystal Violet Dye” Adsorption Science & Technology, 2022.

V. Kishor Kumar, N. K. Rajan, **V. Vandhana Devi**, Gitesh Kaushik “Relationship between Gaestel Index and rheology of blended bitumens” AIP Conference Proceedings, Volume 2452, 2022.

**V. Vandhana Devi**, C. Akin, “Mitigation of Energy Consumption Impact by Planning and Formulation of Environmental Management System for Indian Infrastructural projects”, Sustainable Practices and Innovations in Civil Engineering, Volume 79, pp. 133 – 139, Lecture Notes in Civil Engineering, 2020.



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**V. Vandhana Devi**, V. Kishor Kumar, "Effect of Sugarcane Baggase Ash and Cement on the Engineering Properties of Soft Clay Soil", International Journal of Advanced Science and Technology, 2020.

P. Kavitha, **V. Vandhana Devi**, Mr. M. Pitchi Rajan, "Experimental study on effects of reactive RHA and curing conditions on GeoPolymer concrete", International Journal of Advanced Science and Technology, Vol. 29, No. 10S, (2020), pp. 7181-7191.

**V. Vandhana Devi**, R. Deepak, "Modeling of Tidal Inlet of Pulicat Lagoon" Indian Journal of Ecology, National (Annexure I), Volume: 46, Issue: 02, Page No: 391-398.

**V. Vandhana Devi**, J. John Alexander "Study on the Assessment of Vehicular Emissions on Urban Air Quality and its Mitigation Measures", International Journal of Recent Innovation in engineering and Research, Aug 2017.

**V. Vandhana Devi**, P S Aravind Raj, F. S. Frieda, "Analytical Study on Improved Connection System for Steel Concrete Composite Column and Reinforced Concrete Beam", Scopus Index journal, July 2018.

R. Deepak, **V. Vandhana Devi**, "Experimental Investigation on Concrete with Construction Demolition Waste Flyash Aggregates", International Journal of Recent Innovation in engineering and Research Publication. ISSN 2456-2084, March 2018.

**V. Vandhana Devi** and R. Nagendran (2017), "Spatial Assessment of water quality in Kondurupalem Lagoon Inlet, South East Coast of India, Indian Journal of Ecology (Annexure 1): 44(4), pp 687 - 696.

**V. Vandhana Devi**, Abdul Basith and John Alexander (2017), "Study on the assessment of vehicular emissions on urban air quality and its mitigation measures", International Journal of Recent innovation in Engineering and Research publication, vol 7(2).

**V. Vandhana Devi** and M. Krishnaveni, (2012) "Socio - Economic Appraisal of Fishing Community in Pulicat Lake, South East Coast of India: Case Study", Journal of Environmental Science and Engineering (JESE), vol. 54 (4), pp. 453-464.

**V. Vandhana Devi** and Nisha Khanam (2010), "Climate Change - A future Heat Stroke", Indian Journal of Science and Technology, vol.3 (11), pp. 104 (ISSN: 0974-6846).



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### International Conferences

**V. Vandhana Devi (2022)**, “Experimental Study on Bio-concrete for sustainable construction”, National conference on Advances in Construction Materials & Management, organised by NIT Warangal.

**V. Vandhana Devi (2022)**, “Microwave Assisted Sunflower Oil Ethyl Ester Production”, organised by NIT Warangal.

**V. Vandhana Devi (2022)**, “Experimental Investigation on Strength and Durability Characteristics of concrete blended with Micro level size artificial fibres”, National conference on Advances in Construction Materials & Management, organised by NIT Warangal.

**V. Vandhana Devi (2022)**, “Influence waste foundry sand on microstructural and mechanical behavior of Self Consolidated concrete filled steel columns”, National conference on Advances in Construction Materials & Management, organised by NIT Warangal.

**V. Vandhana Devi (2022)**, “Effect of nanoparticles in natural fiber reinforced polymer composites”, National conference on Advances in Construction Materials & Management, organised by NIT Warangal.

**V. Vandhana Devi (2022)**, “Bauxite residue as a binary additive in lime treated soil composites”, National conference on Advances in Construction Materials & Management, organised by NIT Warangal.

**V. Vandhana Devi (2022)**, “Mechanical properties of concrete with micro level reinforcement using natural synthetic fibres”, National conference on Advances in Construction Materials & Management, organised by NIT Warangal.

**V. Vandhana Devi (2022)**, “A Comparative study of partial replacement of coarse aggregate with sustainable waste materials”, International Conference on Innovative product design and intelligent manufacturing system, organised by NIT, Rourkela.



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- V. Vandhana Devi (2022)**, “Behaviour of Self – cured self –compacting concrete filled short channel columns under axial compression” , International Conference on Innovative product design and intelligent manufacturing system organised by NIT, Rourkela.
- V. Vandhana Devi**, V. Kishor Kumar (2020), “Effect of Sugarcane Baggase Ash and Cement on the Engineering Properties of Soft Clay Soil”, AICTE Sponsored Virtual Conference on Integration of Advanced Technologies for Industry 4.0 (ICIATI), organised by KCG College of Technology.
- P. Kavitha, **V. Vandhana Devi**, Mr. M. Pitchi Rajan (2020), “Experimental study on effects of reactive RHA and curing conditions on GeoPolymer concrete”, AICTE Sponsored Virtual Conference on Integration of Advanced Technologies for Industry 4.0 (ICIATI), organised by KCG College of Technology.
- C. Akin, **V. Vandhana Devi** (2019), "Mitigation of Energy Conservation Impact by planning and formulation of Environmental Management System for Indian Infrastructure Projects", International Conference on Sustainable Practices and Innovations in Civil Engineering, SSN College of Engineering, Kalavakkam.
- P.S. Aravind Raj, **V.Vandhana Devi** (2019). "Seismic Performance of sustainable concrete structural joint with steel loops", International Conference on Sustainable Environment and Energy, Hindustan Institute of Technology and Science, Padur.
- V. Vandhana Devi**, C. Akin (2018), “Mitigation of Energy Consumption Impact by Planning and Formulation of Environmental Management System for Indian Infrastructural projects”, International conference on Civil, Architectural and Environmental Engineering, The University of Auckland, Wellington, New Zealand.
- R. Balaamurali, **V Vandhana Devi** and Vasanthi Padmanabhan (2017) “Energy Audit for B.S.A. Crescent University’ Proceedings of the International Conference on Innovative Technologies on Sustainable Built Environment, B.S.A. Crescent University, Chennai, pp. 127
- V. Vandhana Devi**, Nieas and Faiyaz (2015) “Study on sustainable low-cost housing materials” Proceedings of the International conference on Competency building strategies in business and technology for sustainable development, Sri Ganesh School of Business Management, Salem, pp. 82



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**V. Vandhana Devi**, R.Nishanth Thulasi and M.Shriram Sundar, (2014) “Waste to Energy for sustainable management of natural resources” Proceedings of the International Conference on Waste management for Sustainable Development, N.S.S.College of Engineering, Palakkad, Kerala, India, pp. 97-100.

Z. Mohammed Sadaquath Ali Khan and **V. Vandhana Devi** (2013), “Experimental study of fibre reinforced concrete using waste materials”, Proceedings of the International Conference on Bioenergy Environment & Sustainable Technologies”, Department of BioTechnology, Arunai Engineering College, Tiruvannamalai, pp. 83-84.

**V. Vandhana Devi** and M. Krishnaveni (2013), “A case study on hydrodynamic modeling of tidal inlet of Pulicat lagoon”, Proceedings of the International Conference on Engineering Materials and Processes, Tagore Engineering College, Chennai, pp- 72.

**V. Vandhana Devi**, R. Nagendran and M.S. Haji Sheik Mohammed (2012), “Energy Audit for Sustainable Use of Energy in Centre for Environmental Studies, Anna University, India – A Case Study”, Proceedings of the 5<sup>th</sup> Engineering Conference, ENCON 2012 – Engineering Towards Change – Empowering Green Solutions, Kuching, Sarawak, **Malaysia**, pp. 415 – 421. (ISBN No. 978-983-43827-2-8).

**V. Vandhana Devi**, M. Krishnaveni (2011), “Analysis of physico chemical parameters of Pulicat lagoon, South East Coast of India”, Proceedings of the International Symposium on Environmental Risk Assessment 2011, Bharathiyar University, Coimbatore, Tamil Nadu.

**V. Vandhana Devi** and Nisha Khanam (2010), “Climate Change- A future Heat Stroke”, Proceedings of the International conference on global Environment and its Sustainability: Implications and Strategies, RKM Vivekananda College, Chennai, pp- 104.

### **National Conferences / Seminars / Workshops**

**V. Vandhana Devi**, Gayathri N, Jemima Patricia Franklin, Githanjali V (2020), “Challenges in Construction of Smart Cities under the Climatic Change Condition – A Case Study of Chennai City”, National Conference on Urban Resilience to Climatic Change, Meenakshi Sundararajan Engineering College.



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P. Gajalakshmi, R. Srinivasa Raghavan and **V. Vandhana Devi** (2010), "Behaviour of structural connections under shock", One day workshop on Protective planning and Design of structures sponsored by CSIR, pp-66-73.

**V. Vandhana Devi** and M. Krishnaveni (2011) "Sustainable use of energy- A case study on Energy Audit for CES, Anna University", Proceedings of the National Conference on Environmental Science and Technologies for Sustainable Development, Aarupadai Veedu Institute of Technology, Tamil Nadu, pp 63-67. (ISBN No. 978-93-81361-24-5)

Thufile Ariful Mohammed, Mohammed Mansoor, **V. Vandhana Devi** (2011), "Fresh Air to Pure Water- Green Technology", Best Paper Award, Proceedings of the National Conference on Green Engineering and Technologies, VSB Engineering College, Karur, Tamil Nadu.

**V. Vandhana Devi**, M. Krishnaveni (2012), "Analysis and Interpolation of physico chemical parameters of Pulicat lagoon using GIS", Proceedings of the National Conference on Sustainable and Emerging Technologies in Civil Engineering, B. S. Abdur Rahman University, Chennai, pp. 190- 197.

K. Dhileepan, M. Naveen Kumar and **V. Vandhana Devi** (2013), "Experimental study on FRC using waste materials to reduce environmental solid waste and to increase the strength of concrete", Proceedings of the national Conference on Recent developments and achievements in Civil Engineering, SKR Engineering College, Chennai, pp. 8-16.

S. Sowmiya Meenakshi, V. Kamalakannan and **V. Vandhana Devi** (2013), "Study on the improvement of storm water drain and sewerage network for Maduravayal, Chennai, Proceedings of the National Conference on Recent Developments and achievements in Civil Engineering College, Chennai pp. 207-210.

M. Srinivasan, G. Tamizharasan and **V. Vandhana Devi** (2013), "Study on the effect of size of aggregate on mechanical properties of self compacting concrete", Proceedings of the National Conference on Innovative solutions for sustainable construction", B.S. Abdur Rahman University, Chennai, pp- 85-93.

K.Gunasekar and **V. Vandhana Devi** (2013), "Study on innovative and sustainable green building practices", Proceedings of the National Conference on Innovative solutions for sustainable construction, B.S. Abdur Rahman University, Chennai, pp- 10-15.





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**V. Vandhana Devi**, E. Shankar & Hisbu Rahman (2014) “A Study on the sustainable management of e-waste using 4 R’s”, National Conference on Green Technology, Environment Engineering & Ethics organized by Arupadai Institute of Technology, 2014.

Saurav Sadhukan, **V. Vandhana Devi** and Yunus Mohammed (2015), “Coastal Zone Management: A sustainable way to manage the coastal zone”, Proceedings of the National Conference on Advances on Civil Engineering, SSN College of Engineering, Chennai, pp. 164-168. (ISBN:978-93-84389-03-01).

**V. Vandhana Devi**, Saurav Sadhukan and Vishnu Priya (2015), “A study on the management of rubber waste using bioremediation technique”, Proceedings of the 2<sup>nd</sup> National Conference on Advancements and Challenges in Civil Engineering, Valliammai Engineering College, Chennai, pp- 64- 68. (ISBN: 978-93-84389-03-01).

### Reviewer for International Journals

Ecological Engineering

Economics of Disaster and Climate Change

Institute for Exploring Advances in Engineering (IEAE) International Journals

### As Resource Person

**Resource Person** for International conference on “Water treatment technologies for rural communities: Options and opportunities” organised by Department of Civil Engineering University of Raparin on 26.10.2022.

**Resource Person** for AICTE and ISTE sponsored one week Online Faculty Development Programme on “Curriculum for Sustainability Phase II”, organised by Velammal Engineering College, Chennai on 03.12.2020.

**Resource Person** for AICTE and ISTE sponsored one week Online Faculty Development Programme on “Curriculum for Sustainability Phase I”, organised by Velammal Engineering College, Chennai on 17.11.2020.

**Session Chair** for AICTE Sponsored Virtual Conference on Integration of Advanced Technologies for Industry 4.0 (ICIATI), organised by KCG College of Technology from 12.06.2020 to 13.06.2020.



## **DEPARTMENT OF CIVIL ENGINEERING**

**Chairperson** for International Conference on Sustainable Environment and Civil Engineering organised by Easwari Engineering College from 28.03.2019 and 29.03.2019.



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**Resource Person** for Guest Lecture "Sewage Treatment and Sludge Management", organised by Jerusalem College of Engineering on 27.02.2019.

**Resource Person** for One Day Workshop on Presentation and Thesis Drafting, organised by KCG College of Technology on 18.12.2018.

### **GRANTS RECEIVED SO FAR**

- Received a grant of **Rs. 75,000** from SERB, New Delhi for organizing 3 days Seminar on "Artificial Intelligence in Construction" during February 5-7, 2019
- Received a grant of **Rs. 1 lakh** from Department of Science and Technology, New Delhi (**DST**) for organizing 3 days International Conference on "Innovative Technologies for Sustainable Built Environment" during March 14 - 16, 2017.
- Received a grant of **Rs. 30,000** from Indian National Science Academy (**INSA**) for organizing 3 days International Conference on "Innovative Technologies for Sustainable Built Environment" during March 14 - 16, 2017.
- Received a grant of **Rs. 1 lakh** from Department of Science and Technology, New Delhi (**DST-SERB**) for organizing one week workshop on "Urban Disasters- Nature's fury or Human negligence?" during September 19 - 24, 2016.
- Received a grant of **Rs. 50,000** from Department of Science and Technology (**DST**) for organizing 2 days National Conference Sustainable and Emerging Technologies in Civil Engineering in 2012.
- Received a grant of **Rs. 25,000** from Council of Scientific and Industrial Research (**CSIR**) for organizing a One day Workshop on Protective Planning and Design of Structures in 2010.

### **MEMBERSHIP IN PROFESSIONAL BODIES**

Indian Society for Technical Education (ISTE)

Indian Ecological Society (IES)

Institute for Exploring Advances in Engineering (IEAE)

Institute for Scholars (INSC)



## **DEPARTMENT OF CIVIL ENGINEERING**

### **AREAS OF RESEARCH INTERESTS**

- Environmental Impact Assessment and Risk Assessment
- Industrial Waste water treatment and Municipal Solid waste management
- Cleaner Production, Environmental Management systems and Energy Auditing
- Environmental modeling and management
- Pollution Prevention
- Remote Sensing and Geographic Information System (GIS)
- Hydro-Dynamic Modeling, Solid and hazardous waste management
- Sustainable Green buildings
- Advanced Wastewater treatment

### **LECTURE COURSES HANDLED**

- Mechanics of Fluids
- Environmental Engineering I & II
- Wastewater Engineering
- Remote sensing and GIS applications
- Irrigation Engineering
- Construction Management
- Construction Techniques, Equipment and Practices
- Project Planning and Appraisal for PG students
- Highway Engineering
- Modern Construction Practices
- Construction Quality Control and Management for PG students
- Building Services
- Air Pollution and Control
- Geographic Information Systems
- Housing Planning and Management
- Engineering Geology
- Environmental Impact Assessment and Disaster Management