

Curriculum Vitae

Nilakanmani Manimaran

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EDUCATION

M. E. in Structural Engineering (CGPA: 9.40/10) 2016 – 2018

Government College of Engineering Salem, Salem, Tamil Nadu, India

Investigation on Behaviour of Cold-Formed Ferritic Stainless Steel Hollow Beams

(GRADUATE THESIS)

Jun '17 - April '18

Guides: Dr M. Anbarasu

- Studied the structural behaviour and ultimate flexural capacity of cold-formed ferritic stainless steel hollow beams by finite element analysis.

B. E. in Civil Engineering (CGPA: 8.73/10) 2012 – 2016

Government College of Engineering Salem, Salem, Tamil Nadu, India

Characterisation of Dyeing Industrial Effluent and Design of Treatment Plant

Guide: Prof. G. Vimala Rosaline

Dec '15 - April '16

- Characteristics of textile dyeing wastewater were analysed and designed treatment units to treat the textile dyeing wastewater efficiently.

RESEARCH INTERESTS

- *Supplementary cementing materials for concrete*
- *Concrete Durability*
- *Sustainability of construction materials*
- *Advances in construction technology*

PUBLICATIONS

Journal Publications

1. **Nilakanmani. M,** & Anbarasu, M. (2018). Investigation on Behaviour of Cold-Formed Ferritic Stainless Steel Hollow Beams. *The Asian Review of Civil Engineering*, ISSN: 2249 - 6203 Vol.7 No.2, 2018, pp. 41-45.

Papers presented in conference

1. Nilakanmani. M, & Anbarasu, M. (2018). Investigation on Behaviour of Cold-Formed Ferritic Stainless Steel Hollow Beams, *National Conference on Innovative Practices, Recyclable Materials and Energy Efficient Methods in Civil Engineering*, PSG Institute of Technology and Applied Research, Coimbatore, TN. March 23-24, 2018.

AWARDS AND RECOGNITIONS

1. Award of **Academic Excellence, Department Rank 1**, M.E., Structural Engineering, Government College of Engineering Aug' 16 - April' 18
2. Received **Teaching Assistantship** from **Government of Tamil Nadu** to pursue master's in engineering. June' 17 - April' 18
3. Received **TEQIP Phase-II Teaching Assistantship** to pursue master's in engineering. Aug' 16 - April' 17
4. Received Scholarship under **Titan Scholarship Program** to pursue bachelor's in engineering, Titan Company Limited, Bangalore, India 2012 - 2016
5. Secured **Second Place** in the event PAPER PRESENTATION, CEANS, National Level Technical Symposium, Kongu Engineering College, Erode, TN Mar' 15
6. Secured **First Place** in the event PAPER PRESENTATION, National Level Technical Symposium, Mahendra Engineering College, Namakkal, TN Mar' 14

RESEARCH EXPERIENCE

Project Officer

June '18 - Present

Department of Civil Engineering (Building Technology & Construction Management Division)

Indian Institute of Technology Madras, Chennai, India

- **Mixture Design of Self Compacting Concrete for Filling of Cavity in PHEP II Bhutan**

Advisors: *Prof. Manu Santhanam*

- Developed mix proportions and performed characterization of mechanical properties of self-compacting concrete (SCC), using aggregates, Portland pozzolana cement, fly ash, limestone powder and admixtures, from Bhutan.
- Studied robustness of the SCC mixes by varying the proportions of mix design for high flow and retardation.

- **Heat of hydration study of Mass concrete applications**

Advisors: *Prof. Prof. Manu Santhanam*

- Studying the early heat of hydration of concrete used in mass concrete applications to check for delayed ettringite formation and thermal shrinkage using Adiabatic Calorimetry and Thermal models.

SELECT WORKSHOPS/CONFERENCES ATTENDED

- Online conference "*74th RILEM Annual Week incorporating the 40th Cement and Concrete Science Conference*", University of Sheffield, England, 31 Aug - 4 Sep 2020
- Online Workshop on "*Advanced Techniques for Materials Characterization*", MNIT Jaipur, July 6-10, 2020
- SPARC Workshop "*Sustainability and Durability of Concrete Structures with By-products and Recycled Materials*", IIT Madras, 17-18 Jan 2020
- National Seminar "*Corrosion Control in Concrete Structures (C³S)*", IIT Madras, 15 June 2019
- ICI-IMPRINT National Seminar "*Structural and Durability Performance of Post-Tensioned Bridges and Buildings*", IIT Madras, 12 April 2019
- International Symposium "*Recent Advances in Concrete Construction and Preservation*", Chennai, 18 Dec 2018
- National workshop "*3D Printing in Construction*", IIT Madras, 16 Nov 2018
- Live Seminar "*Corrosion Mitigation for Reinforced Structures*", Vector Corrosion Technologies Inc., IIT Madras, 4 Oct 2018
- GIAN course "*Sustainable Infrastructure Design Using High Strength Metallic Alloys*", GCE Salem, 4-9 Jan 2018
- Terzaghi Memorial Seminar "*Dynamics of Soils and Foundations*", Indian Geotechnical Society Trichy Chapter & NIT Trichy, 14 Oct 2017
- National Seminar "*Emerging Trends in Steel Structures*", PSNA College of Engineering and Technology, Dindigul, 21-22 Sep 2017
- National workshop on "*Advanced Durability Testing of Concrete*", GCE Salem on 13 Feb 2017
- National workshop on "*Retrofitting of Steel Structures using Carbon Fiber Reinforced Composites*", GCE Salem on 8 Feb 2017
- National workshop on "*Analysis, Design & Testing of Steel Structures*", GCE Salem on 30 Jan 2017
- National workshop on "*ITS & IOT*", NIT Trichy, Mar 2015

COMPUTING SKILLS

- **Analysis and Design** - Autodesk AutoCAD, ABAQUS, Ballim-Graham Thermal model
- **Tools** -MS Office, ORIGIN

LINGUISTICS

- English and Tamil.