

Faculty Profile



1. Name : Kalaivani.M
2. Designation : Assistant Professor
3. Date of Joining : 18.01.2008
4. Nature of Association : Regular
5. E mail : mkalaivani85@gmail.com
6. Mobile no. : +91 9095059420

7. Academic Qualifications:

Course	Name of the Institution / University	Year of Passing	% of Marks	Class
Ph.D	K.S.Rangasamy College of Technology, Tiruchengode	2018	--	--
M.E (Structural Engg.)	Institute of Road and Transport Technology, Erode	2010	92 %	<i>First Class with distinction</i>
BE (Civil Engg.)	V L B Janakiammal College of Engineering and Technology, Coimbatore	2005	73%	<i>First Class</i>
HSc	Government Girls Higher Secondary School, Tiruchengode.	2001	82.16%	First Class
SSLC	Government Girls Higher Secondary School, Tiruchengode.	1999	86.9%	First Class

7. Teaching Experience

- **Assistant Professor**, K.S. Rangasamy College of Technology, Tiruchengode, from 01.06.2010 to Till-date.
- **Lecturer**, K.S. Rangasamy College of Technology, Tiruchengode, from 18.01.2008 to 31.07.2008.

Industrial Experience

- Executive (Planning), URC Constructions (P) Ltd, Erode from 26.05.2005 to 12.01.2008

8. Projects

Under Graduate

Title: "Assessment of Ground Water Quality Using GIS"

Post Graduate

- **Title:** "Experimental study on behaviour of corner RC beam-column joints subjected to cyclic loading"

Ph. D

- **Thesis title:** "Experimental investigation on structural behavior of mono and hybrid fibre reinforced concrete elements"

9. **Publications**

International Journals

1. Elakyah, D & **Kalaivani, M** 2019, "Effect of curing and molarity on Geopolymer concrete with foundry sand", International Journal of Scientific Research and Review", Vol.7, No.3, pp. (Impact Factor 6.1) (UGC NO : 64650)
2. **Kalaivani, M**, Ramesh, S and Angu Senthil, K 2018, "Performance Study on Fly Ash Bricks by Using Municipal Solid Waste as a Filler Material", International Journal of Innovations in Engineering and Technology, Vol.12, No.1, pp.12-14 (Impact Factor -0.672)
3. Ramesh, S, Amirthashanthi, A, **Kalaivani, M**, Easwaran, P, Angusenthil, K 2018, " Experimental Study on Textile Wastewater Treatment using Moringa Oleifera & Azadirachta Indica", International Journal for Innovative Research in Science & Technology, Vol.5, No.7, pp.12-17
4. **Kalaivani, M**, Vennila, G, Ramesh, S, Angu Senthil, K 2018, "Behavior of RC Short Columns with Partial Replacement of Fine Aggregate by Quarry Dust Using GFRP Reinforcement", International Journal of Civil and Structural Engineering Research, Vol. 06, No.2 , pp. 1-5.
5. **Kalaivani, M**, Ramesh, S, Angu Senthil, K 2018," Performance Evaluation of Corner RC Beam- Column Joints with Different Reinforcement Detailing Subjected To Cyclic Loading", International Journal for Research in Applied Science and Engineering Technology , Vol. 6, No.10, pp. 130-133.
6. Elakyah, D & **Kalaivani, M** 2018, 'Study of Geopolymer Concrete Under Ambient Curing Condition: A Review', International Journal of Advanced Science and Engineering Research, Vol. 3, No. 1, pp. 169-173.
7. Logachandran, D, & **Kalaivani, M** 2018, 'Feasibility Study on Plastic Wastes in Concrete: A Review', International Journal of Civil and Structural Engineering Research, vol. 5, No. 2, pp. 47-52.

8. **Kalaivani, M**, Vennila, G & Subhasree, R 2017, 'Feasibility study on behavior of steel fiber reinforced concrete elements using Ansys', International Journal for Research & Development in Technology, vol.7, no.2, pp.143-150.
9. Subhasree, R & **Kalaivani, M** 2017, 'Experimental investigation on behavior of RC short column using GFRP reinforcement', International Journal of Advanced Research in Management, Architecture, Technology and Engineering, vol.3, Special Issue 11, pp. 204-207.
10. Sellakkannu, N, **Kalaivani, M** & Easwaran, P 2016, 'Steel Fibre reinforced concrete slab – a review', International Journal for Research and Development in Technology, vol.5, No.2, pp. 88-94.
11. **Kalaivani, M** & Karthik, S 2016, 'Steel Fibre reinforced concrete beam-column joint – A review', International Journal of Engineering, Research and Technology, vol. 5, No. 5, pp. 166-173.
12. Karthik, S, **Kalaivani, M** & Easwaran, P 2016, 'Fatigue behaviour of steel fibre reinforced concrete – A review', International Research Journal of Engineering and Technology, vol. 3, no. 4, pp. 2064-2068.
13. Vijayalakshmi, N, **Kalaivani, M**, Murugesan, A & Thirugnanam, G, S 2010, 'Experimental Investigation of RC-Beam Column joint strengthening by FRP Wrapping', International Journal of Civil and Structural Engineering, vol.1, no. 1, pp.35-49.

National Journals

1. **Kalaivani, M**, Vennila, G & Ramesh, S 2019, 'Cyclic behavior of mono and hybrid fibre reinforced high performance concrete exterior beam-column joints', Journal of Structural Engineering, Vol. 45, no. 5, pp. 444-451.
2. Angu Senthil, K, Jagadeesan, R, Ramesh, S, **Kalaivani, M** and Easwaran, P 2019, "Performance study of lightweight artificial aggregate concrete by utilizing industrial waste - A Review", Journal of Emerging Technologies and Innovative Research, Vol. 6, No.1, pp.569-571.
3. **Kalaivani, M** & Vennila, G 2017, 'Experimental investigation on structural behavior of micro and macro fibre reinforced concrete beams subjected to cyclic loading', Journal of Structural Engineering (SERC), vol. 44, no. 1, pp. 70-75. (ANNEXURE I)
4. **Kalaivani, M** & Vennila, G 2016, 'Mechanical Properties of Cocktail Fibre Reinforced High Performance Concrete using Silica Fume', Asian Journal of Research in Social Sciences and Humanities, vol.6, no.11, pp.581-587.

International Conferences

1. Elakyah, D and Kalaivani, M, 2019, “Effect of curing and molarity on Geopolymer concrete with foundry sand” in second international conference on NEXGEN Technologies at Sengunthar Engineering College, Tiruchengode on 8th-9th March 2019. (ISBN : 978-93-87793-75-0)
2. Elakyah, D and Kalaivani, M, 2018, “ Study of Geopolymer Concrete Under Ambient Curing Condition: A Review”, Seventh international conference on advanced science and engineering research, ICASER 2018, Al-Ameen Engineering College, Erode on 5th April 2018.
3. Logachandran, D & Kalaivani, M 2018, ‘Experimental Investigation On Fly Ash-GGBS Based Geopolymer Concrete With Slaked Lime Under Ambient Curing’ presented paper at International Conference ICEAT 2018, Sri Krishna college of Technology, Coimbatore, 22-23 March 2018.
4. Subhasree, R & **Kalaivani, M** 2017, ‘Experimental investigation on behavior of RC short column using GFRP reinforcement’, proceedings in the international conference on recent innovations in Engineering, organized by the Department of Civil Engineering, Sri Subramanya College of Engineering and Technology, Palani, Tamilnadu on 25.03.2017.
5. **Kalaivani, M** & Vennila, G 2016, ‘Experimental Study on structural behavior of hybrid fibre reinforced high performance concrete beam-column joints subjected to cyclic loading’, Second International Conference on Sustainable Practices in Civil Engineering, at KPR Institute of Engineering and Technology, Coimbatore, India from April 10-11, 2017.

National Conferences

1. Karthik, S & **Kalaivani, M** 2016, ‘Utilization of steel fibres in exterior beam-column joints’, proceedings in the National Conference on Modern Infrastructure Development Through Sustainability (NCMIDTS-2016), at M.Kumarasamy College of Engineering, Karur on 17.03.2016.
2. Karthik, S & **Kalaivani, M** 2016, National conference on design, materials, manufacturing and construction Technologies ‘N.S.N college of engineering and technology, Karur on March 31 2016

3. Karthik, S & **Kalaivani, M** 2016, “Behaviour of steel fibres in exterior beam-column joints”, Proceedings of National Conference on Innovative Research in Civil Engineering, Jayshriram group of Institutions, Tirupur on 23.03.2016.
4. Kalaiarasu, K & **Kalaivani, M** 2015, “Effect of change in fibre length and geometry in flexural behaviour of steel fibre reinforced concrete beam, Proceedings of national conference on recent trends in cement concrete composites for structural system, at Department of Civil Engineering, N.S.N College of Engineering and Technology on 24.04.2015.
5. Nagappan, V, & **Kalaivani, M** 2014, ‘Experimental study on flexural behaviour of hybrid fiber reinforced concrete beams subjected to cyclic loading’ Fourth National Conference on Contemporary Issues in Construction Management, Environment, Geotechnical and Structural Engineering (NCCI-2K14), at Erode Sengunthar Engineering College, Erode, India on 12.04.2014.
6. **Kalaivani, M**, Vijayalakshmi, N & Thirugnanam, G, S 2010, “Experimental Investigation on behaviour of RC Corner Beam-Column Joint Subjected to cyclic loading”, A National level conference on Contemporary challenges and pioneering Technologies in Civil Engineering (CTCE-10)” held at K.S.R. College of Engineering, Tiruchengode on 17.05.2010 and 18.05.2010.
7. **Kalaivani, M** & Vijayalakshmi, N 2010, “Experimental investigation of RC beam-column joint strengthening by FRP wrapping”, A National Level Conference on Recent Trends in Civil Engineering (NCRTC-2KX)” held at Erode Sengunthar Engineering College, Thudupathi, on 08.04.2010.
8. Vijayalakshmi, N & **Kalaivani, M** 2010, “ Experimental study on behavior of RC Top-corner beam-column joints subjected to cyclic loading”, National conference on Innovative construction materials and modern techniques in Civil Engineering (ICMMTCE’10), Organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 26.03.2010.

10. **Summer Training Programmes**

1. AICTE sponsored Faculty Development Training Programme on “**Success Mantra to promote higher education in digital Era : Teach to learn and learn to teach**” organized by K.S.Rangasamy College of Technology, Tiruchengode from 08.07.2019 to 21.07.2019
2. Faculty development programme on “**Patent Drafting and Filing**” organized by Chase Research & Development Solutions, Chennai from 24.06.2019 to 28.06.2019

3. Short term training programme through ICT mode on **“NBA Accreditation”** organized by National Institute of Technical Teachers Training and Research, Kolkata conducted at K.S.Rangasamy College of Technology, Tiruchengode from 22.04.2019 to 26.04.2019
4. Faculty development programme on **“Reference Management & Knowledge Organization For Journal Writing”** organized by Aalim Muhammed Salegh College of Engineering, Chennai from 07.01.2019 to 11.01.2019
5. Anna University sponsored Faculty Development Training Programme on **“CE 8404 Concrete Technology”** at K.P.R Institute of Engineering and Technology, Arasur, Coimbatore from 10.12.2018 to 22.12.2018
6. Anna University sponsored Faculty Development Training Programme on **“CE 6702 – Prestressed Concrete Structures”** at Muthayammal College of Engineering, Namakkal from 12.05.2018 to 18.05.2018.
7. DST-NIMAT sponsored FDP on **“Entrepreneurship in conceptual Structural Analysis of structures”** organized by Bannari Amman Institute of Technology, Sathiyamangalam, Erode from 05.12.2016 to 17.12.2016.
8. Faculty Development Training Programme on **“CE 2351-Structural Analysis-II”** at Institute of Road and Transport Tehnology, Erode from 12.12.2014 to 18.12.2014.
9. ISTE sponsored Two-week ISTE Workshop on **“Engineering Mechanics”** conducted by Indian Institute of Technology, Bambay from 26.11.2013 to 6.12.2013 through ICT (MHRD).
10. Two days national level workshop on **“ Publishing articles in SCI Indexed journals and Filing IPR”** organized by **Research and Development Cell and department of Library, K.S.Rangasamy College of Technology, Tiruchengode** on 25.07.2019 and 26.07.2019.
11. One day National Workshop on **“Smart Water Management”** organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 13.03.2019.
12. **One day National Workshop on “Duracrete durability and risk assessment of concrete structures”** organized by the Department of Civil Engineering, Bannari Amman Institute of Technology, Sathiyamangalam on 08.03.2019.
13. One day National seminar on **“Integrated Building Solution”** organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 01.03.2019.

14. One day seminar on “**How to write a successful Project to Funding Agencies**” organized by Library & Readers club, , K.S.Rangasamy College of Technology, Tiruchengode on 21.07.2018
15. One day workshop on “ **Startup Initiative and Entrepreneurship development**” organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 03.04.2018
16. AICTE sponsored s Two day National seminar on “**Current trends, Prospects and Challenges of SWACHH BHARAT**” organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 14.09.2017 and 15.09.2017.
17. One day national seminar on “**Improving your API Scores based on UGC Regulations**”, organized by the Department of Library, K.S.Rangasamy College of Technology, Tiruchengode on 28.08.2017.
18. CSIR sponsored National Seminar on “**Sustainable Solid waste management Technologies for clean India**” organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 23.06.2017.
19. One day workshop on “**Intellectual Property Rights**” at K.S.Rangasamy College of Technology, Tiruchengode on 06.08.2016.
20. International Conference on “**Nanomaterials and Nanotechnology**” held at K.S. Rangasamy College of Technology, Tiruchengode, India from 07.12.2015 to 10.12.2015.
21. National workshop on “**Smart renewable energy technologies: Opportunities and Challenges**”, at K.S.Rangasamy College of Technology, Tiruchengode on 28.08.2015.
22. National Conference on “**Role of Biotechnology Tools and Techniques in Waste water management**” at K.S.Rangasamy College of Technology, Tiruchengode on 03.02.2015 and 04.02.2015.
23. National workshop on “**Renewable Energy Sources: Indian Scenario**” conducted by K.S.Rangasamy College of Technology, Tiruchengode in association with Hayman International, Erode on 22.08.2014.
24. “**NPTEL Workshop**” organized by national programme on technology enhanced learning (IIT Madras) at K.S.Rangasamy College of Technology, Tiruchengode on 09.08.2014.
25. CSIR Sponsored National Seminar on “**Renewable Energy Technologies for Rural Development**” at K.S.Rangasamy College of Technology, Tiruchengode on 23.08.2013.
26. CSIR Sponsored national Seminar on “**Advanced Membrane Bioreactors for Waste water Treatment**” at K.S.Rangasamy College of Technology, Tiruchengode on 16.03.2013.

27. CSIR Sponsored national seminar on **“Innovative site Remediation Techniques”** at K.S.Rangasamy College of Technology, Tiruchengode on 19.01.2013.
28. CSIR sponsored National seminar on **“Challenges in seismic hazards and Risk Assessment”** at Kongu Engineering College, Perundurai on 06.10.2012.
29. CSIR sponsored national seminar on **“Innovative Energy Conservation Techniques in Building Construction”** at Kongu Engineering college, Perundurai on 28.09.2012.
30. National workshop on **“Energy Conservation Technologies for Global Sustainability”** organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 24.08.2012.
31. National workshop on **“Green Technologies”** organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode on 20.08.2011.
32. National Conference on **“Emerging technologies in Civil Engineering”** organized by the Department of Civil Engineering, K.S.Rangasamy College of Technology, Tiruchengode in association with ACC limited on 02.04.2011.
33. National level one day seminar on **“Green Building Concepts, Materials and Techniques”** organized by the department of Civil Engineering, VLB Janakiammal College of Engineering and Technology, Coimbatore on 12.10.2010.
34. Two days workshop on **“Recent advances in codified method of Steel Design (Limit State Method) IS: 800-2007”** at K.S.Rangasamy College of Technology, Tiruchengode on 17.03.2010 and 18.03.2010.
35. One day workshop on **“Software applications in Civil Engineering”** organized by the Department of Civil Engineering, VLB Janakiammal College of Engineering and Technology, Coimbatore on 24.02.2009.
36. National level one day seminar on **“Durability aspects of modern structural concrete”** at Kongu Engineering College, Perundurai, Erode on 04.10.2008.
37. One day seminar on **“Environment for Future Generations”** held at VLB Janakiammal College of Engineering and Technology, Coimbatore on 19.03.2004.

11. **Invited Lecture Delivered**

1. Delivered guest lecture on **“Design of brick masonry structures”** on 06.02.2019 at Nandha college of Technology, Erode.
2. Delivered guest lecture on **“Design of Reinforced Concrete Elements”** on 25.07.2019 at Nandha college of Technology, Erode.

12. **Membership in Professional Bodies**

- Life Member in Institution of Engineers (India) (M-1645875)
- Life Member in Indian society of systems for Science and Engineering (LM 05394)
- Life Member in Indian Society of Technical Education (LM 64137)

13. Awards and Recognitions

- Received “**Dr.APJ ABDUL KALAM AWARD FOR YOUNG SCIENTIST – 2018**” from Marina Labs - Research and Development, Chennai on 13.10.2018.
- Received “**BEST PAPER AWARD**” on Effect of curing and molarity on Geopolymer concrete with foundry sand in second international conference on NEXGEN Technologies at Sengunthar Engineering College, Tiruchengode held on 8th-9th March 2019.

14. NPTEL / SWAYAM

- Successfully completed the NPTEL online certification course of **Design of Reinforced Concrete Structures**” with a consolidated score of **78%** as 12 week course in the phase between Jul-Oct 2018. (Elite)
- Successfully completed the NPTEL online certification course of **Plastic Waste Management**” with a consolidated score of **82%** as 8 week course in the phase between Feb-Apr 2019. (Elite+Silver)
- Successfully completed the SWAYAM online certification course of “Structural Engineering” with a **consolidated score of 74%** as 12 week course in the phase between Feb-Apr 2019

15. Resrach Activities

- Recognized supervisor by Anna University, Chennai (**3310011**)
- Presently Guiding 01 **Ph.D. student**
- Total **Citations: 7, h – Index: 1, i10 Index: 0**
- **Area of Expertise/Research Interests**
 - Geopolymer concrete
 - Fibre Reinforced Concrete
 - High Performance Concrete
- **Reviewer for Inernational Journal of Engineering, Research and Technology**
- **Chair Person** for Paper Presentation in the International Conference on Civil, Structural and Environmental Engineering (ICSEE-2019)” on 15.03.2019 at K.S.R College of Engineering, Tiruchengode.

16. Patent Filed

- Filed a patent titled “Cement-less ambient cured eco-friendly concrete with natural additives” Ref Number No. 201941012323 A, Patent Office Journal No. 20/2019 Dated 17/05/2019, Page : 20522

17. **Book Chapter Published**

- Published a Book chapter Titled “Performance study of Moringa and Neem Powder in Treating Tannery Waste water”, Advances in Civil Engineering, Akinik Publications, Feb-2019. (ISBN : 978-93-5335-310-0)

18. **R&D Funds Received from Government Agencies**

- **Received TNSCST Fund** under students project scheme titled “Strength and Durability Characteristics of Fly Ash-GGBS Based Geopolymer Concrete Using Foundry Sand” of Rs.7500 /- with reference number ECV-045

19. **Others**

- Participated as faculty Mentor for Quality enhancement in engineering education for the topic “Deflections of statically determinate structures” in the phase between Jan-Apr 2016.
- Participated as faculty Mentor for Quality enhancement in engineering education for the topic “Design of Reinforced Concrete beams – Design of concrete structures” in the phase between Jan-Apr 2017.
- Participated as faculty Mentor for the NPTEL online certification course for the topic “Design of Reinforced Concrete Structures”, in the phase between Jul-Oct 2018.
- Concrete Laboratory In charge
- Consultancy Amount generated Rs.32,000/- in Concrete Laboratory
- Acting as AICTE MODROBS Co-ordinator in the department.

20. **Personal Details**

Fathers Name : S.Murugesan

Date of Birth & Age : 19.07.1984 & 35 Years

Gender : Female

Marital Status : Married

Permanent Address : 101,pari Nagar,
K.C.P. Thottam, Kumalankuttai,
Perundurai Road, Erode-638011