

FACULTY PROFILE

P. Raja Priya, B.E (Civil), M.E (Str.), (PhD)

Assistant Professor

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Web of Science ResearcherID: HGC-3287-2022



ACADEMIC EXPERIENCE - 7 Years

National Engineering College, K.R.Nagar, Kovilpatti, Thoothukudi – *Assistant Professor*

09.06.2025 – Till Date

Francis Xavier Engineering College, Tirunelveli — *Assistant Professor*

13.08.2018 – 31.05.2025

EDUCATIONAL QUALIFICATION

PhD: Anna University Chennai - *Doctor of Philosophy (PhD) in Civil Engineering*

July 2024 onwards.

Research Topic: Assessment and Enhancement of Steel Corrosion Resistance in Alkali-Activated Concrete for Marine Environments: Towards Practical Applications.

Research Centre: National Engineering College, K.R.Nagar, Kovilpatti, Thoothukudi

PG: Anna University Regional Campus, Tirunelveli — *M.E in Structural Engineering*

June 2014 - June 2017

First Class - 8.13 CGPA

UG: Thiagarajar College of Engineering, Madurai— *B.E in Civil Engineering*

June 2007 - June 2011

First Class - 8.20 CGPA

AREA OF INTEREST

Structural Engineering and Concrete Technology

JOURNAL PUBLICATIONS

1. Raja Priya P et. al (2024), Studies On Strength Aspect and Effective Use of Medical Face Mask to Make a Sustainable Green Fiber Reinforced Concrete, Sigma Journal of Engineering and Natural Sciences. Vol. 43, Issue No. 1, pp. 260–268, February, 2025. DOI: 10.14744/sigma.2024.00048
2. Kannan Vellaipandian, **Raja Priya Periasamy**, Venkatesan Balasubramanian (4 May 2023), Prediction And Validation of Constituent Materials for Concrete Manufacturing Using Artificial Neural Network, Innovative Infrastructure Solutions, SCI journal (Springer Publication) (IF=0.46), (2023) 8:160. DOI: <https://link.springer.com/article/10.1007/s41062-023-01127-4>. (ISSN: 2364-4176, IF=2.4), pp-1-10.
3. **Raja Priya P et. al**(MARCH 07 2023), Assessment of water demand and potential water sources to face future water scarcity of hilly region, Journal of Water Supply: Research and Technology-Aqua. DOI: 10.2166/aqua.2023.212. (ISSN: 2709-8036, IF=4.3), Vol 72 No 3, pp.299 -312.
4. **Raja Priya Periasamy et. al** (27 February 2023), Effects of metakaolin on the shear capacity of EBFRC beams: An experimental and numerical investigation, Construction and Building Materials 367 (2023) 130291. DOI: <https://doi.org/10.1016/j.conbuildmat.2023.130291>. (ISSN: 0950-0618, IF=7.4)
5. **P.Raja Priya et. al (11 January 2021)**, "Evaluation of the Permeability of High Strength Concrete Using Metakaolin and Wood Ash as Partial Replacement for Cement", SN Applied Sciences (Springer publication-SCI journal), (2021) 3:90. DOI: <https://doi.org/10.1007/s42452-020-04024-y> [E-ISSN:2523-3971, IF=2.6, WoS,SCI]
6. **P.Raja Priya et. al** (Feb 2020) An Experimental Study on the Strengthening of Concrete Column using Glass Fibre Wrapping' GEDRAG & OGANISATE REVIEW, vol.33,issue 2,pp 56-67. DOI:10.37896/GOR33.02/025. [ISSN:0921-5077]
7. **P.Raja Priya et. al** (Nov, 2019). Performance and Microstructural Analysis of Portland Slag Cement Mortar Induced with Pozzolanic Additives' International Journal of Recent Technology and Engineering, ISSN:2277-3878, vol. 8, issue 4,pp. 744-750.

JOURNAL MANUSCRIPT REVIEW

1. **Raja Priya P**, Reviewed a paper under the title of “Anti-Microbial Resistance Studies of Silver (i) and Copper (ii) from the Acylation of Urea Ligands with Benzoyl Chloride” for SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES E-ISSN: 1304-7205 on 7th April’ 2025.
2. **Raja Priya P**, Reviewed a paper under the title of “Continuous Dyeing of Graphene and Polyaniline on Textiles for Electromagnetic Interference Shielding: An Application of Intelligent Fabrics” for SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES E-ISSN: 1304-7205 on 18th Oct’ 2024.
3. **Raja Priya P**, Reviewed a paper in the title of “Security in UAV Ecosystem: An Implementation Perspective” for SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES E-ISSN: 1304-7205 on 22nd Oct’ 2023
4. **Raja Priya P**, Reviewed a paper in the title of “Development of Environmental Concrete by using Waste Glass Powder as a Partial Natural Sand Substitution” for SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES E-ISSN: 1304-7205 on 3rd Sept’ 2023
5. **Raja Priya P**, Reviewed a paper in the title of “Security in UAV Ecosystem: An

- Implementation Perspective” for SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES E-ISSN: 1304-7205 on 7th July’ 2023
6. **Raja Priya P**, Reviewed a paper for Materials Today: Proceedings (Elsevier), E-ISSN: 1304-7205 April 2023.
 7. **Raja Priya P**, Reviewed a paper titled of “A Survey of Usage Potentials of Natural Fiber Composites Especially on Kenaf Fiber in Architectural Spaces” for SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES E-ISSN: 1304-7205 on 5th April’ 2023.
 8. **Raja Priya P**, Reviewed a paper under the title of “Self-Compacting Concrete with a Large Amount of Cementitious Ingredients Suffers from Shrinkage, Creep, and Elastic Shortening” for SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES E-ISSN: 1304-7205 on 5th Dec’ 2022.

PATENT PUBLICATIONS/GRANT

1. **P.Raja Priya** (1) and four Students, **TRIANGULAR NUT HEAD FOR STEEL STRUCTURAL CONNECTION**, Design patent Application Number: 401629-001, Dated: 7.12.2023. Registration date: 22/05/2024-Granted
2. **P.Raja Priya** (2) and one other, **A NEW PLUMB BOB TO MEASURE THE VERTICALITY IN A CURVED STRUCTURES (CONCAVE SIDE) DURING THE CONSTRUCTION PROCESS**, Application No. 202241067476 A on 24.11.2022, Publication date: 02/12/2022. The Patent Office Journal No. 48/2022 Dated 02/12/2022. Page: 76251.

BOOK PUBLICATION

1. **Dr.V.Kannan & P.Raja Priya (2024)**, ‘**Concrete Technology and Testing Methods**’, got approval from Raja Rammohun Roy National Agency for ISBN, Department of Higher Education, MHRD, Government of India in August 2024. ISBN: 978-93-341-1313-6. Published on August 2024.

CONFERENCES (National / International)

1. **P.Raja Priya**, presented a paper titled, “Sustainable Geopolymer Concrete Incorporating Ceramic and Concrete Waste and Its Influence on Mechanical and Microstructural Properties” in **6th International Conference on “SUSTAINABLE ENVIRONMENT & CIVIL ENGINEERING”** Organized by **Department of Civil Engineering, Easwari Engineering College, Ramapuram, Chennai, India** held on 27th & 28th March 2025.
2. **P.Raja Priya**, presented a paper on “An Investigation on SCC using Lightweight Material” in the International Conference on Recent Trends in Engineering Technology and Management, conducted by Coimbatore Institute of Engineering and Technology, Coimbatore.
3. **P.Raja Priya**, presented a paper on “Effect of waste tyre rubber crumbs and lime on stabilization of weak soil” in the International Conference on Smart City and Green Solutions conducted by Francis Xavier Engineering College, Tirunelveli.

WORKSHOP / SEMINAR / FDP ATTENDED

1. **P. Raja Priya** has attended 12-week (Jan – April 2025) Faculty Development Program on Research Methodology in Natural Sciences through NPTEL.
2. **P. Raja Priya** has attended 12-week (Jan – April 2025) Faculty Development Program on Retrofitting and Rehabilitation of Civil Infrastructure.
3. **P.Raja Priya** has successfully participated in the Masterclass Series under IP Utsav, organised virtually by the All-India Council for Technical Education (AICTE) and the Ministry of Education's Innovation Cell (MIC) from 21st April to 26th April 2025.
4. **P.Raja Priya** has undergone a week's FDP on "Self-Directed Learning in Engineering Education: A Future Perspective" from 09/12/2024 to 13/12/2024 (Notional Learning Hrs: 20), the training program organised by NITTTR, Chennai.
5. **P. Raja Priya** has been awarded Elite with Silver (82%) in the NPTEL online certification course / 12 weeks (July-October 2024) & Faculty Development Program on Architectural Approaches to Decarbonization of Buildings.
6. **P. Raja Priya** has been awarded Elite with Silver (81%) & **5% topper** in the NPTEL online certification course / 12 weeks (July-October 2024) & Faculty Development Program on Introduction to Engineering Seismology.
7. **P. Raja Priya** has been awarded Elite with Silver (84%) & **1% topper** in the NPTEL online certification course / 12 weeks (Jan-April 2024) & Faculty Development Program on Maintenance and Repair of Concrete Structures.
8. **P.Raja Priya** has undergone one week FDP on "Developing Teaching Professionals for Institutional Development" from 18/03/2024 to 22/03/2024 (Notional Learning Hrs: 20), the training program organized by NITTTR, Chennai.
9. **P.Raja Priya** has undergone a one-week FDP on "Nurturing Intent, Initiative, and Innovation for Business Startups" from January 8th to 12th, 2024, the training program organised by the EDIC Department of NITTTR, Chandigarh.
10. **P. Raja Priya** has been awarded the NPTEL online certification course / 12 week (July - Oct 2023) on Strength of Materials with Elite (71%) category.
11. **Raja Priya P** has undergone ten days "Faculty Entrepreneurship Development Programme" funded by the Department of Science and Technology, Ministry of Science and Technology, Govt. of India, organised by Kalasalingam Academic of Research and Education from 24.07.2023 to 05.08.2023.
12. **Raja Priya P** has undergone two two-week international faculty development program on "Research Tools" organised by the Department of Artificial Intelligence and Data Science, Eswari Engineering College, held between 03.07.2023 to 14.07.2023.
13. **Raja Priya P** has undergone a software training programme 'ETAB and SAFE Complete Building Design Course (19 conduct hours), conducted by UDEMY on 01.07.2023.
14. **Raja Priya P** has undergone an ISTE-approved faculty development program (FDP) 'Scientific research, Grants and Intellectual Property Rights' from 12.06.2023 to 16.06.2023, conducted by Adithya Institute of Technology, Coimbatore, Tamil Nadu state.
15. **Raja Priya P** has undergone Innovation Ambassador (IA) training 'Reskilling' (total 21 sessions of 21 contact hours) conducted in online mode by MoE's innovation cell & AICTE during the IIC calendar year 2022-23.
16. **Raja Priya P** has undergone Innovation Ambassador (IA) training 'Advanced level' (total 15 sessions of 30 contact hours) conducted in online mode by MoE's innovation cell & AICTE during the IIC calendar year 2022-23.
17. **P. Raja Priya** has been awarded Elite with silver (79%) & **5% topper** in the NPTEL online certification course / 12-week (Jan - April 2023) faculty development program in

Concrete Technology.

18. **Raja Priya P** has undergone Innovation Ambassador (IA) training ‘Foundation level’ (total 15 sessions of 30 contact hours) conducted in online mode by MoE’s innovation cell & AICTE during the IIC calendar year 2022-23.
19. The Indian Green Building Council (IGBC) awarded the Title of ‘**IGBC Accredited Faculty**’ to **Raja Priya.P** for having successfully completed the faculty training programme conducted during 13-24 March 2023 and demonstrated her knowledge on Green Building and Built Environment.
20. **P. Raja Priya** has attended five five-day Short Term Course on PDP 106 –"GIS Applications in Urban Infrastructure Management" from 21.11.2022 to 25.11.2022, Conducted by NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING & RESEARCH Taramani, Chennai 600 113.
21. **P. Raja Priya** has been awarded Elite with silver (79%) in the NPTEL online certification course / 12-week (July - Oct 2022) faculty development program in Design of Reinforced Cement Concrete.
22. **P. Raja Priya** has successfully completed the 4-day hands-on workshop on “Effective and Efficient Online Teaching in the Age of Corona” conducted by IIT Bombay from 14.5.2020 to 17.5.2020.
23. **P. Raja Priya** has successfully completed the 4-day hands-on workshop on “The Bodhitree and Safe Tools for Effective Online Teaching” conducted by IIT Bombay from 18.6.2020 to 21.6.2020.
24. **P. Raja Priya** has been awarded Elite with Silver (79%) in the NPTEL online certification course / 12-week (July-Oct 2019) Faculty Development Program in Foundation Engineering.
25. **P. Raja Priya** has been awarded the NPTEL online certification course / 12 week (Jan - April 2020) online faculty development program in Geotechnical Engineering - I with a score of 94%.
26. **P. Raja Priya** has been awarded with a certificate for the online course on “Geo-processing and Visualization on Web Platform” conducted by Indian Institute of Remote Sensing (IIRS) during 27.01.2020 to 07.02.2020.
27. **P. Raja Priya** has been awarded with a certificate for the online course on “Basic Principles of Remote Sensing Technology” conducted by Indian Institute of Remote Sensing (IIRS) during 13.04.2020 to 25.04.2020.
28. **P. Raja Priya** has been awarded with a certificate for the online course on “Overview of Planetary Geosciences with special emphasis to the Moon and Mars” conducted by Indian Institute of Remote Sensing (IIRS) during 08.06.2020 to 12.06.2020.

AWARDS AND RECOGNITION

1. **P.Raja Priya** has successfully completed the translation edit task Assigned by NPTEL in the **Machine Learning Tool – TransLingua** for the **Tamil** language. **Edited Hours:** 6 **Date:** June 17, 2025. **Course:** Geosynthetics and Reinforced Soil Structures (105106052).
2. **P.Raja Priya** has been recognised as 1 % topper in the NPTEL course on Research Methodology in Natural Sciences for the Jan-April 2025 session.
3. **P. Raja Priya** has been assigned an NPTEL course for translation editing in the Tamil language for “Geosynthetics and Reinforced Soil Structures (105106052)”-Lecture 15 - 21.
4. **P. Raja Priya** has been recognised as a 5 % topper in the NPTEL course on Introduction

to Engineering Seismology for the July-October 2024 session.

5. **P. Raja Priya** received the certificate of appreciation from the Centre for Continuing Education, IIT Madras, and has been recognised as NPTEL Discipline Star for Jan-April 2024.
6. **P.Raja Priya** has been recognised as 1 % topper in the NPTEL course on Maintenance and Repair of Concrete Structures for the Jan-April 2024 session.
7. **P.Raja Priya** has been recognized as 5 % topper in the NPTEL course on Concrete Technology for the Jan-April 2023 session.

SOFTWARE PROFICIENCY

AutoCAD, StaadPro, OpenShot video editor for online teaching, BhodiTree (IITM App), and Learning management systems (LMS)

PROFESSIONAL ASSOCIATION MEMBERSHIP

1. International Association of Engineers (Membership ID: 326836), Since Dec 7, 2022
2. American Society of Civil Engineers (Membership ID: **000012473885**), **Since July 14, 2024**