

Resume – (Prashanth M.H.)

Name : Prashanth M.H.
Designation : Associate Professor
Department of Civil Engineering
NITK Surathkal
Contact details: mh_prashanth@nitk.edu.in
+91-9448626481 (Mobile)
(0824)2474000 Extn: 3348



Specialization : Structural Engineering
(Fracture and fatigue of concrete/reinforced concrete, FRP Composites,
Bridge Engineering and Concrete Engineering)

Date of Birth : 01-03-1983

Education Qualifications:

Qualifying Degree	Specialization	University / Institute	Year of Passing
PhD	Structural Engineering	Indian Institute of Science, Bangalore	2018
MTech	Structural Engineering	National Institute of Technology Karnataka, Surathkal	2006
BE	Civil Engineering	National Institute of Technology Karnataka, Surathkal	2004

Work Experience:

Position	Institute/Organization	Period
Associate Professor (AGP-9500/-)	NITK, Surathkal	2.12.2024 to till date
Assistant Professor (AGP-8000/-)	NITK, Surathkal	16.9.2019 to 1.12.2024
Assistant Professor (AGP-7000/-)	NITK, Surathkal	21.5.2012 to 16.9.2019
Assistant Professor (AGP-6000/-)	NITK, Surathkal	1.10.2009 to 20.5.2012
Lecturer	NITK, Surathkal	21.5.2007 to 30.9.2009
Assistant Engineer (Civil)	KPCL	1.6.2006 to 19.05.2007

Subjects Taught UG Level:

Design of RCC Structures
Structural Analysis-I & II
Bridge Engineering
Finite Element Method
Concrete Technology
Elements of Earthquake Engineering
Civil Engg Materials lab - I & II
Building Design and Drawing

Subjects Taught PG Level:

Fracture Mechanics of Concrete
Finite Element Method
Advanced Bridge Engineering
Structures Laboratory

Thesis Guidance

Degree	Completed	On-going
PhD	1	(FT-6 / PT-2)
MTech	42	-
BTech	25	-

Refereed Journal Papers

- 1) Imran K, Prashanth M H, Development and Performance Evaluation of Self-Compacting Lightweight Alkali-Activated Concrete Incorporating Hydroton Clay Balls, *Structures*, 2024
- 2) Chaitanya A, Prashanth M H, Residual strength estimation of RC columns subjected to elevated temperatures from stress block parameters, *Journal of Structural Fire Engineering*, 2024
- 3) Prakash, G B, Prashanth, M.H., Narasimhan, M.C. Mahendra, K., Das, A.K. Flexural and fracture performance of fiber reinforced self-compacting alkali activated concrete– A DOE approach, *Theoretical and Applied Fracture Mechanics*, 2024, 133, 104630
- 4) Pruthvi Raj S, Prashanth M H, Direct estimation of fractal dimension for an irregular surface using the roughness parameter approach, *Measurement*, (2024), 236.
- 5) Chaitanya A, Prashanth M H, Chiranjeevi Joshi, Simplified Method to Predict Residual Strength of Reinforced Concrete Columns Under Natural Fire Conditions, *Journal of The Institution of Engineers (India): Series A* (2024)
- 6) Aryamol Joy, Manjunath R, Neha S N, and M. H. Prashanth, Experimental studies on self-compacting alkali activated slag concrete mixes incorporating reclaimed asphalt pavement as fine aggregate, *Key Engineering Materials*, 2023, 961, pp 113-134
- 7) Manjunath, R., Prashanth, M.H., Narasimhan, M.C., Bala Bharathi, U.K., Flexural behavior of reinforced high performance self-compacting alkali activated slag concrete beams, *Indian Concrete Journal*, 2020, 94(12), pp. 17–28
- 8) Prashanth, M.H., Parvinder Singh, P., J M Chandra Kishen, Role of longitudinal reinforcement on the behavior of under reinforced concrete beams subjected to fatigue loading, *International Journal of Fatigue*, 2019, 125, pp. 271–290.
- 9) Jeevanesh M, Prashanth M H, K S Babu Narayan, K Venkataramana, Experimental Investigation of RC frames with infills subjected to simulated lateral loading, *IOSR-Journal of Mechanical and Civil Engineering (IOSR-JMCE)*. Vol 11, Issue 2, Version V (Mar-April 2014) pp 51-57.
- 10) Rakshith S Shetty, Prashanth M H, Channappa T M, Ravi Kumar CM, Vibration suppression of stress truss railway bridge using tuned mass dampers, *International Journal of Civil and Structural Engineering*, 2013, Vol 4, No 1, pp 65-74.

- 11) Prashanth M H, K S Babu Narayan, K Venkataramana, Sajith M, Experimental studies on RC frames using CFRP sheets, *International Journal of Earth Sciences and Engineering*, 2013, Vol 6, No 3, pp 541-545.
- 12) C M Ravi Kumar, M B Sreenivasa, K Abdul Raheem, M H Prashanth, M Vijay Shekar Reddy, Experimental studies on strength and durability of mortars containing pozzolanic materials, *International Journal of Advanced Structures and Geotechnical Engineering*, 2013, Vol2, No 2, pp 45-49.
- 13) Vikas A C, Prashanth M H, Indrani Gogoi, Channappa T M, Effect of cable degradation on dynamic behavior of cable stayed bridge, *Journal of Civil Engineering Research*, 2013, Vol 3, No 1, pp 35-45.
- 14) Prashanth M H, Indrani Gogoi, Anil Kumar, Ravikumar C M, Experimental studies on use of helix fibers in concrete, *NITK Research Bulletin*, Dec 2012, Vol 21, No 2, pp 51-56.
- 15) Prashanth M H, Suraj K, K S Babu Narayan, Ravikumar C M, Performance Enhancement of a Preloaded RC beams using CFRP sheets, *International Journal of Earth Sciences & Engineering*, Vol 5, No 06(01), December 2012, pp 1715-1719.
- 16) C M Ravi Kumar, Anil Kumar, M H Prashanth, D Venkat Reddy, Experimental Studies on Iron-ore tailing based Interlocking Paver blocks, *International Journal of Earth Sciences & Engineering*, Vol 05, No.03 (June 2012), pp 501-504.
- 17) Prashanth M H, K S Babu Narayan, Mahesh P, Experimental Investigation of RC frames using fibers, *International Journal of Earth Sciences & Engineering*, Vol 04, No.06 (Oct 2011), pp 826-829.
- 18) Prashanth, H C Chinnagiri Gowda, K S Babu Narayan, Katta Venkataramana Performance enhancement of RC frames using welded wire fabrics –An experimental investigation, *International Journal of Earth Science & Engineering*, Vol 3, No 1, Feb 2010, pp 108-115.

List of Papers presented in international/ National Seminars/conferences (Selected)

- 1) Shaurya Chopra, Imran K, Prashanth M.H. “Experimental Studies on the Mechanical and Durability Properties of Mortar Containing Waste Glass Powder as Partial Replacement of Cement” International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges, SIIOC 2023. Published in *Lecture Notes in Civil Engineering (2024) 528*
- 2) Nandhineekrishna, Channappa T M, Prashanth M H, Imran K, “Numerical Study on Static and Fatigue Behavior of Alkali-Activated Fly Ash Concrete Modelled using Concrete Damage Plasticity (CDP) Model” 5th International Conference on Civil Engineering Trends and Challenges for Sustainability, CTCS 2023, Nitte. Published in *IOP Conference Series: Earth and Environmental Science (2024) 1387*
- 3) Fathima Salih S, Prashanth M H, Pruthviraj S, Imran K, “Application of fractal analysis to characterize the fracture and mechanical properties of concrete” 5th

International Conference on Civil Engineering Trends and Challenges for Sustainability, CTCS 2023, Nitte. Published in *IOP Conference Series: Earth and Environmental Science* (2024) 1387

- 4) Sushanthkumar KV, Channappa T M, Prashanth M H, Chaitra A R, “Numerical Analysis on Fatigue Behavior of Plain Concrete and Alkali-activated Concrete” 5th International Conference on Civil Engineering Trends and Challenges for Sustainability, CTCS 2023, Nitte. Published in *IOP Conference Series: Earth and Environmental Science* (2024). 1387
- 5) Prashanth M H, Chandra Kishen J.M. “Mixed mode crack propagation in reinforced concrete beams - effects of size and reinforcement ratios” 11th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FramCoS-11), 10th to 14th September, 2023, IISc Bangalore, India
- 6) Chaitanya A, Prashanth M H, Sayed Abrar K “Computation of Stress Block Parameters of Rectangular RC Column at Elevated Temperatures” International Conference on Recent Advancements in Civil Engineering, RACE 2022, Bhopal, Published as *Lecture Notes in Civil Engineering* (2024), 352, Pages 491 – 500
- 7) Lekhan H N, Manjunath R, Neha S N, M H Prashanth “Effect of elevated temperature on rice husk ash based self-compacting alkali activated slag concrete mixes under different cooling regimes” in Fifth International Conference on Materials Science and Manufacturing Technology (ICMSMT-2023), Published in *IOP Conference Series: Materials Science and Engineering*, (2023), 1291
- 8) Nidhi K, Manjunath R, Pruthvi Raj S, Prashanth M.H “Experimental Studies on Bagasse Ash-Based Self-Compacting Alkali Activated Slag Concrete” in Fifth International Conference on Materials Science and Manufacturing Technology (ICMSMT-2023), Published in *IOP Conference Series: Materials Science and Engineering*, (2023), 1291
- 9) Imran K, Prashanth, M H, Aditya Kumar, “Numerical study on the behavior of RC beams by using GFRP bars as an alternate to steel bars” in International Conference on Civil Engineering Trends and Challenges for Sustainability, CTCS 2022, Published in *Materials Today: Proceedings*, (2023) 88, Pages 66-70
- 10) Chaitanya A, Prashanth, M H, Banasode, S, “The load carrying capacity of reinforced concrete columns subjected to elevated temperature using simplified method” in International Conference on Civil Engineering Trends and Challenges for Sustainability, CTCS 2022, Published in *Materials Today: Proceedings*, (2023) 88, Pages 105 - 109
- 11) Annappaswamy G M, Channappa T M, Prashanth M H “Numerical study on fracture behavior of alkali activated concrete mixes for different beam sizes” in International Conference on Civil Engineering Trends and Challenges for Sustainability, CTCS 2022, Published in *Materials Today: Proceedings*, (2023) 88, Pages 144 - 151
- 12) Thejarathnam T, Prashanth M H, Imran K, “Study on the effectiveness of prefabricated cage system reinforcement in columns” in Novel Sustainable Concepts

and Technologies in Civil Engineering (NSCTCE-2022), Published in *IOP Conference Series: Earth and Environmental Science 1149 (2023)*.

- 13) Aditya Kumar, Prashanth M H, Imran K, “Numerical investigation of the hybrid reinforced concrete beam using GFRP bars” in Novel Sustainable Concepts and Technologies in Civil Engineering (NSCTCE-2022), Published in *IOP Conference Series: Earth and Environmental Science 1149 (2023)*.
- 14) Dravesh Yadav, Prashanth, M H, Naveen Kumar, “Numerical study on the effect of steel fibers on fracture and size effect in concrete beams” International Conference on Advances in Construction Materials and Structures 2023, Published in *Materials Today: Proceedings, (2023)*
- 15) Prashanth M H, Manjunath R, Koppad A, Umesh B, Imran K “Experimental study on shear reinforced and shear deficient RC beams subjected to preloading and wrapping with CFRP sheets” Fourth International Conference on Recent Advances in Materials and Manufacturing 2022, Published in *Materials Today: Proceedings, (2023)*
- 16) Vishal Singh, Prashanth M H “Deflection surface analysis of thin plate structures using regression technique” International Conference on Structural Engineering and Construction Management held by Federal Institute of Science and Technology, Kochi in June 2022. Published as Book Chapter in *Lecture Notes in Civil Engineering, (2023), 284, pp. 231-244*
- 17) Vishal Singh, Prashanth M H “Regression analysis on the deflected surface of a uniformly loaded and simply supported thin rectangular plates”, Proceedings of International Conference ICAMCE 2022, Thakur College of Engineering and Technology, Mumbai, February 2022.
- 18) Dravesh Yadav, Prashanth M H, “Numerical study on the behaviour of steel fiber reinforced concrete beams for different crack lengths”, International Conference on Advances in Construction Materials and Structures 2022, Published in *Materials Today: Proceedings, (2022), 65, pp1459 – 1466*
- 19) Laveena S, Prashanth M H, Sanjana S, Amritha J, “Experimental study on use of construction and demolition waste as coarse aggregates in concrete” International Conference on, “Green Highway Construction – A Sustainable Approach” 14-15 September 2020, NITK, Surathkal, India
- 20) Parvinder Singh, Prashanth M.H, J. M. Chandra Kishen "Damage degradation in reinforced concrete beams through acoustic emission" 4th World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium, WMCAUS2019, 17-21 June, 2019, Prague, Czech Republic
- 21) Prashanth M H, Chandra Kishen J.M. "A study of the fracture of Reinforced concrete beams under shear using the AE technique" 10th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-X), 23rd to 26th June, 2019, Bayonne, France.

- 22) Sathwik, M.C., Prashanth, M.H., Naik, Sneha.C., Aakash S. “Experimental and numerical studies on compressive behaviour of CFRP wrapped cylindrical concrete specimens subjected to different pre-loading conditions”, First International Conference on Recent Advances in Materials and Manufacturing 2019, Published in *Materials Today: Proceedings*, (2020), 27, pp. 327–335
- 23) D Sudakshina, M H Prashanth, J M Chandra Kishen “Effect of aggregate-mortar interface cracking on tensile strength of concrete” International Civil Engineering and Architecture Conference-2019, Trabzon, Turkey, April 2019
- 24) C D Dipindas, M H Prashanth, P Lakshmy “Analysis of anchorage zone stresses in post-tensioned concrete girders” Trends in Civil Engineering and Challenges for Sustainability CTCS-2019, NMAMIT, Nitte, May 2019, Published as Book chapter in *Lecture Notes in Civil Engineering* (2021), 99,
- 25) Naveen Kumar and Prashanth M H “Fracture behavior of two grades of concrete with different percentage of fibers” Proceedings of 8th International Engineering Symposium - IES 2019, Kumamoto University, Japan, March 7-9, 2019.
- 26) Prashanth, M. H. and Chandra Kishen, J M. “An acoustic emission study of fatigue processes in plain concrete: Effect of size and maximum stress” Proceedings of the Twelfth International Fatigue Congress (FATIGUE 2018), Poitiers Futuroscope, France, May 27 – June 01, 2018.
- 27) Abhilash Koppad, Prashanth M H and Umesh B “Experimental Study on Shear of RC Beams under Preloading and CFRP strengthening” Proceedings of 7th International Engineering Symposium - IES 2018, Kumamoto University, Japan, March 7-9, 2018.
- 28) Prashanth M.H and J.M Chandra Kishen “An acoustic emission study of mixed mode crack propagation in reinforced concrete beams” in 9th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-9), May 29-June1, 2016, University of California, Berkeley, California, USA.
- 29) Prashanth M.H. Parvinder S, J.M Chandra Kishen, “Fatigue crack propagation in plain concrete beams by acoustic emission technique” in 9th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-9), May 29-June1, 2016, University of California, Berkeley, California, USA.

Short term courses Attended- (Selected)

S.I No	Name of the Course	Place & Sponsored by	Dates
1	Fiber Reinforced Concrete and its application	Dept of Civil Engg, NITK Surathkal, TEQIP-III	18 th to 22 nd November 2019
2	Fracture Mechanics of Concrete: Research & Applications	Dept of Civil Engg, IIT Madras	12 th to 18 th July 2011
3	Design of High – Rise Buildings	Earthquake Engineering Research Centre, IIT Hyderabad	26 th May to 7 th June 2008

Organization of Courses/Seminars/Workshops/Conferences (Selected)

- 1) Coordinator for Two days Workshop on **Non-Destructive Testing Techniques and Repair Material Characterization (NRMC – 22)**, 3rd & 4th Nov, 2022
- 2) Organizing Secretary in International workshop on **Durability of Concrete** (in online mode) for faculty members, professional engineers during 26th to 30th October 2020
- 3) Course Co-Coordinator in conducting a one-week refresher course on **RCC Detailing, Mix-Design and Quality Control**, for professional Engineers from Karnataka PWD and Irrigation Departments, under the aegis of Karnataka Engineering Staff college, KRS, Mysore, and CCE, NITK during 17th to 21st October 2011.
- 4) Course Coordinator in conducting a one-week refresher course on **Drafting & Detailing through AUTOCAD**, for professional Engineers from Karnataka PWD and Irrigation Departments, under the aegis of Karnataka Engineering Staff college, KRS, Mysore, and CCE, NITK during 22nd to 26th June 2009.

Abroad visits

1. To attend and present the paper in **10th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FramCoS-X)**, which was held from 23rd to 26th June, 2019, at the Université de Pau et des Pays de l'Adour (UPPA) Campus, Bayonne, France
2. To attend and present paper in **7th International Engineering Symposium 2018 (IES 2018) Kumamoto University, Japan** from 7th March 2018 to 9th March 2018
3. (i) Visited **Centre for Advanced Cement materials, Northwestern University, USA** from the 19th May to 27th May 2016 for research interaction, sponsored by NITK-TEQIP-II,

(ii) To attend and present two papers in **9th International Conference on Fracture Mechanics of Concrete and Concrete Structures, University of California, Berkeley, USA** from 29th May to June 1st 2016
4. Visited the **Concrete Technology Unit, University of Dundee, Dundee, Scotland, UK** from 28th November to 15th December 2008 for research interaction, sponsored by NITK- TEQIP

Membership of Professional Societies

- 1) Life member, Association of Structural Rehabilitation
- 2) Life member, Indian Society for Applied Mechanics
- 3) Life member, Association of Consulting Civil Engineers
- 4) Life member, Indian Concrete Institute
- 5) Life member, Indian Institute of Bridge Engineers

Sponsored Research Projects:

Title of Project	Funding Agency	Duration	Name of P.I. and other investigators
Strength, serviceability and hazard assessment of global vipassana pagoda considering as built information and in-situ material properties (Project Cost: 18 Lakhs)	Global Vipassana foundation	2021-2024 (Continuing)	PI- Dr Pavan G S, CI - Dr Sreevalsa K, -Dr M H Prashanth
Effect of Corrosion on Residual Capacity of RCC Beams and Beam – Column Joints in coastal regions (Project Cost: 35 Lakhs)	Board of Research for Nuclear Sciences.	2010 -2013 3 years (completed)	PI-Dr. K Venkataramana CI-Dr K S Babu Narayan - Er M H Prashanth

Special Lecturers at Center for Continuing Education/ Guest Lectures delivered (Selected):

S.I No.	Title of Lecture/Lecture Series	Date, Place and Programme where Lectures delivered
1	Fatigue behaviour of under-reinforced concrete beams using AE technique	24 th February 2021, Short term course on “Recent advances in sustainable materials and its engineering applications” organized by BMS College of Engineering, Bengaluru (online mode)
2	Use of AE Technique to study the fatigue behaviour of under-reinforced concrete beams	28 th July 2020, Short term course on “Smart Civil Engineering Practices to meet the contemporary issues” organized by NSS College of Engineering, Palakkad (online mode)
3	Influence lines and Moving loads	18 th January 2020, VTU Centre for Post-Graduate studies, Muddenahalli, Chickaballapur District

Outreach activities

1. Served as a member of the Affiliation Inquiry Committee to assess the facilities for the continuation of affiliation for the PhD program in Civil Engineering at Goa College of Engineering for the academic years 2022-23 and 2023-24.
2. Served as an examiner for the PhD Department Colloquium at KLE Technological University, Hubballi, during the years 2020, 2021, and 2022.
3. Served as an external evaluator for a Ph.D. thesis at BMS College of Engineering, affiliated with VTU Belagavi, in 2021.
4. Served as external examiner to evaluate MTech dissertation and viva voce examination (for 3 students) at Basaveshwar Engineering College, Bagalkot on 13-09-2019
5. Served as external examiner to evaluate MTech project report and conduct viva examination (for 3 students) at NMAMIT, Nitte, on 14-06-2019

6. Conducted a visit to Govt Engg College Jhalawar, Rajasthan as a part of Twinning activity under TEQIP-III during 11th to 16th February 2019
7. Conducted valuation work at Manipal Institute of Technology for the years 2011 and 2012.
8. Conducted valuation work at University BDT College of Engineering, Davangere for the years 2009, 2010, 2011.

Reviewer for the following Journals:

1. Transactions of the Indian National Academy of Engineering
2. Indian Concrete Journal
3. International Journal of Concrete Structures and Materials
4. Asian Journal of Civil Engineering
5. The Journal of Corrosion science and engineering

Reviewer for conference papers

1. Sustainable Infrastructure: Innovations, Opportunities and Challenges (SIIOC-2024)
2. Modern Trends in Civil Engineering Infrastructure Development and Management (MTCEIDM 2023)
3. Sustainable Infrastructure: Innovations, Opportunities and Challenges (SIIOC-2023)
4. Research and Innovation for Sustainable Development of India (RISDI 2021)
5. Civil Engineering Trends and Challenges for Sustainability (CTCS 2019)

Conference Committee Chairs

1. Sustainable Infrastructure: Innovations, Opportunities and Challenges (SIIOC-2024)
2. Modern Trends in Civil Engineering Infrastructure Development and Management (MTCEIDM 2023)
3. Sustainable Infrastructure: Innovations, Opportunities and Challenges (SIIOC-2023)
4. New and Effective Innovations, Technologies and Key challenges (NCCE-NITK-2020)

Awards:

1. Conferred with the Young Civil Engineer Award 2023 by The Institution of Engineers (I), Mangaluru local centre, in recognition of contributions to the field of civil engineering on Engineers Day 15th September 2023.
2. The paper by Chaitanya A, Prashanth M H, and Sourabha Bansode titled "The Load-Carrying Capacity of Reinforced Concrete Columns Subjected to Elevated Temperatures Using a Simplified Method" was awarded Best Paper at the International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS-2022), during 22nd and 23rd December 2022, held at NMAMIT, Nitte.
3. Mr. Nagaraja K, under my supervision, was awarded the Sundaram Merit Award for his MTech dissertation work. His dissertation was recognized as the best in ME/MTech (Structural Engineering) among engineering colleges in Karnataka for the academic year 2018-2019.

Administrative Positions held in the Institute

- Resident Engineer in-charge from February 2022 to May 2022.
- Faculty in-charge (Estate & Works) from February 2020 to February 2022.
- Faculty in-charge (Institute Guest Houses) from February 2020 to February 2022.

Other Instructional Tasks:

(Such as development of lab/course, Instructional software, Education technology packages (including ETV films, summer modular courses, Practical supervision).

- i) Developed a new course on subject “Fracture Mechanics of concrete” for MTech (Structural Engineering) program in the year 2011.
- ii) Served as counsellor for IGNOU courses from 2007 to 2011.

All the above information furnished is true to the best of my knowledge.

Date: 31.12.2024

Prashanth.M.H