MATTUR C NARASIMHAN - CURRICULUM VITAE



Narasimhan M.C Professor (HAG scale), Department of Civil Engineering

PERSONAL DETAILS

Name : Mattur C Narasimhan
 Designation : Professor (HAG)
 Qualification : Doctor of Philosophy
 Specialization : Structural Mechanics, Concrete Technology,

Address : Department of Civil Engineering National Institute of Technology Karnataka (NITK) Surathkal, Srinivasnagar, Mangalore 575 025, INDIA

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Education:

Ph.D (Indian Institute of Technology, Madras, Chennai), (1987-93)M.Tech. (Engg. Mechanics) (Indian Institute of Technology, Madras, Chennai),(1983-85)B.E.(Civil Engineering), (University of Mysore), (1977-82)

Positions Held

10/2018– present, Professor (HAG), Department of Civil Engineering, National Institute of Technology Karnataka (NITK), Surathkal, India
07/2002–09/2018 Professor, Department of Civil Engineering, NITK, Surathkal.
09/1995–06/2002 Assistant Professor, Dept. of Applied Mech. & Hydraulics NITK, Surathkal, (Now, Dept. of Water Resources and Ocean Engg.)
09/1991–08/2002 Senior Lecturer, Dept. of Applied. Mech & Hydraulics NITK, Surathkal, India
09/1985-08/1991, Lecturer, Dept. of Applied Mech. & Hydrailics, NITK, Surathkal, India
01/1985-08/1985, Lecturer, Dept. of Civil Engg., BIET, Davanagere, India
12/1982-07/1983, Lecturer, Dept. of Civil Engg. BIET, Davanagere, India

Administrative Positions Held at NITK

02/2014 – 05/2016 Dean (Planning and Deveopment) & Chairman, Commercial Establishment Committee 07/2012 – Jan 2014 Chief Vigilance Officer 09/2006 – 08/2009 Head of the Department - Dept of Civil Engineering 05/2003 – 04/2005 Faculty in-charge (Civil), Estate & Works

Thesis Guidance - Doctoral Theses

Completed:

1. Manoj Kumar Chitawadagi (2009) Structural Performance of Concrete-filled Steel Tubes Subjected to Axial Compression and . Flexure

2. M. Rame Gowda (2010) Development and Prediction of Properties of Self-compacting Concrete

3. M.Nazeer (2010) Strength and Durability Studies on High Performance Concrete in Marine Environment

4. Gopinatha Nayak (2012) Strength and Durability Studies Self Compacting High Volume fly ash concrete Mixes

5. Sujatha Unnikrishnan (2013)Seismic Response of Laterite Masonry Structures

6. Santhosh K Malkapur (2016) Studies on Performane Characteristics of Hydrogen Loaded Concrete Mixes 7. B.M. Mithun (2017)

Performance of Alkali Activated Slag Concrete Mixes incorporating Copper Slag as Fine Aggregate

8 Manjunath R (2020) Experimental Studies on High Performance Alkali Activated Slag Concrete Mixes

Project Guidance - Masters's Projects Thesis (Last Five Years)

- 1. Mr. Arun Kumar A (2022) A Numerical Study on Fire Resistance of RCC Box Girder
- 2. Mr.Jayant Wadhwa (2022) Studies on Analysis and Evaluation of Couple Shear Walls
- 3. Mr. Vikas Nadh Reddy Bijivemula (2022) Structural Crack Detection Using Convolution . Neural NetWorks
- 4. Mr. Naik Akshay Laksh (2021) Some Studies in Finite Element Modelling of . Reinforced Concrete Shear Walls
- 5. Mr. Jayakrishanan J (2021) Structural Response of Moment-resistant Connections with Modified Reduced Beam Sections under Cyclic Loading
- 6. Mr. Anmol Singh (2020). Studies on Alkali-activated Rubberized Concrete Mixes

7. Mr. Jsammula Ashok Kumar (2020) Fracture properties of Alkali Activated Slag and .
 Fly-Ash Concrete Mixes

- 8. Mr.Uchuluri Jaipal (2020) Studies on Fracture parameters of Alkali Activated Concrete Mixes
- 9. Ms. Neelimadas M (2019) Finite Strip Analysis of Thermally Stressed Rectangular Plates made of Functionally Graded Materials
- 10. Mr. SaiPushparaj M ((2019) Studies on Bond-Strength of Self- compacting Alkaliactivated Slag Concrete Mixes
- 11. Mr.Suryanarayana Latchireddy (2019) Studies on Bond-Strength of Fly-ash admixed Alkali--activated Slag Concrete Mixes
- 12. Mr. Manjunatha B.V (2019) Finite Strip Analysis of Rectangular Plates made up of Functionally Graded Materials
- 13. Mr. Shivam Kumar (2018) Studies on Steel Foibre Reinforced, High Strength, self-Compacting Alkali-Activated Slag Concrete Mixes-
- 14. Mr. Umesha K.M (2018) Studies on Durability of High Strength, Self-compacting, Alkali-Activated Slag Concrete Mixes.

Project Guidance – Undergraduate Projects (Last Three Years)

- 1. Shear Strength Performance of Alkali-activated Slag Concrete Mixes An Experimental Study (2019)
- 2. Computer-Aided Design of Silos and Bunkers (2021)

- 3. Experimental Study for Construction of Rural Roads using Rubberized Concrete Mixes (2022)
- 4. Design of International School Building based on Steel Intensive Construction (2022)

Significant Publications

International Journals

- Santhosh M. Malkapur, Shobha S. Ghodke, P.N. Sujatha, Yashoda Singh, Shivakumar, Meghanath Sen, Mattur C. Narasimhan, and Abhishek V. Pulgur "Waste-polymer incorporated concrete mixes for neutron and gamma radiation shielding", Progress in Nuclear Energy, March 2021, 1-8
- Manjunath R, Mattur C Narasimhan, and K.M. Umesha, Studies on High Performance Self-Compacting Alkali Activated Slag Concrete Mixes subjected to Aggressive Environments and Sustained Elevated Temperatures, Construction And Building Materials, Vol 229, 2019, pp 1-19
- 3. Manjunath R and Mattur C Narasimhan "High Strength Flowable Alkali-Activated Slag
- . Concrete Mixes produced using Industrial Wastes" Materials Science and Engineering,
- . IOP Publishing; 561 (2019) doi: 10.1088/1757-899X/561/1/012003
- Manjunath R and Mattur C Narasimhan, "Effect of addition of OPC on Performance Characteristics of Self-Compacting Alkali-Activated Slag Concrete Mixes", Materials Science and Engineering, IOP Publishing; 561 (2019) doi: 10.1088/1757-899X/ 561/ 1/ 012008
- R. Manjunath, Mattur C Narasimhan, M.Shashanka, S.D.Vijayanand, J.Vinayaka, "Experimental Studies on Shear Strength Characteristics of Alkali-Activated Slag Concrete Mixes", Materials Today: Proceedings, Elsevier; doi.org/10.1016/j.matpr. 2019.11.015
- Manjunath R., Mattur C. Narasimhan, Umesh K.M., Shivam Kumar and Bala Bharathi "Studies on development of High Performance Self-compacting Alkali Activated Slag Concrete Mixes using Industrial Wastes", Construction and Building Materials Vol.198, Feb 2019, 133-147, <u>https://doi.org/10.1016/j.conbuildmat.2018.11.242</u>
- Manjunath R., and Narasimhan M.C, "An Experimental Invetsigation on Selfcompacting Alkali-activated Slag Concrete Mixes", Journal of Building Engineering, 2018, Vol.17, 1-12, <u>https://doi.org/10.1016/j.jobe.2018.01.009</u>
- Manjunath R., and Mattur C. Narasimhan, "Setting Behaviour of Alkali-activated Slag Concrete Mixes - Effect of Chemical Admixtures", Indian Concrete Journal 2018, Vol.92,
 45-51
- 9. M. Rame Gowda, M.C. Narasimhan and Karisiddappa,"Development and Study of strength of Self-Compacting Mortar Mixes using Local Materials" ASCE Journal of Materials in Civil Engineering, Vol 23,No.05,2011,525-32
- 10 Manojkumar V. Chitawadagi, Mattur C. Narasimhan and S. M. Kulkarni, "Axial

Capacity of Rectangular Concrete-filled Steel Tube Columns-DOE Approach", Construction and Building Materials Vol 24, No. 4, April 2010, 585-595

- 11. Manojkumar V. Chitawadagi, Mattur C. Narasimhan and S.M. Kulkarn, "Axial Strength of Circular Concrete-filled Steel Tube Columns — DOE approach", Journal of Constructional Steel Research, Vol 66. No.10, 2010, pp 1248-1260
- 12. Amrutha, Gopinatha Nayak, Mattur C.Narasimhan and S.V.Rajeeva, "High Temperature performance of Self Compacting Concrete High Volume Fly-Ash Mixes", Journal of Structural Fire Engineering, Vol.2, 2, 2011, pp 81-90
- M. Rame Gowda, M.C. Narasimhan and Karisiddappa,"Mix Design and Performance Evaluation of Self-Compacting Concrete Mixes incorporating Rice Husk Ash", International Journal of Earth Sciences and Engineering, Vol. 03, No. 01, SPL. 2010, pp 203-210
- Sujatha Unnikrishnan, Mattur C. Narasimhan and Katta Venkataramana, "Studies on Uni-axial Compressive Strength of Laterite Masonry Prisms", International Journal of Earth Sciences and Engineering Vol. 04, No.02, 2011, pp 336
- Sujatha Unnikrishnan, Mattur C. Narasimhan and Katta Venkataramana, "Effect of Containment Reinforcement on the Seismic Response of Box-type Laterite Masonry Structures – An Analytical Evaluation", Earthquakes and Structures, Vol.5, No.1, 2013, 067-081
- Santhosh Kumar M, Mattur C. Narasimhan and Karkera B.N., "Gamma Radiation Shielding Characteristics of Concrete Mixes - The State-of-Art," International Journal of Earth Sciences and Engineering Vol., No., 2013, pp 336

National Journals

1. M. Rame Gowda, M.C. Narasimhan, Karisiddappa and T.Kumuda, Predicting Compressive Strength of SCC Mixtures using Artificial Neural Networks, The Indian Concrete Journal, Vol 86, No.4, 2012, pp 19-25

2. Sujatha Unnikrishnan, Mattur C. Narasimhan and Katta Venkataramana Free Vibration Studies of Box-Type Laterite Masonry Structures, Journal of Structural Engineering, Vol 39, No.3, 2012, pp 332 - 346

International Conferences

1 Sujatha Unnikrishan, Mattur C. Narasimhan and Katta Venkataramana Uniaxial Compressive Strength of Laterite Masonry Prisms – An Evaluation, International Conference on Civil Engineering and Earth Sciences, Aug 21-22, 2010, Hyderabad,

2. Mattur C. Narasimhan, Gopinatha Nayak, B.T. Ajith and More Krishna Rao Development of Alternate Binders to Portland Cement Concrete Using Fly-ash and Blast-Furnace Slag – Some Experiences,

UKIERI Concrete Congress on Concrete for 21st Century Constructions, March 8-10, 2011, New Delhi,

Santhosh Kumar M, Mattur C. Narasimhan and Karkera B.N
 Gamma Radiation Shielding Characteristics of Concrete Mixes - The State-of-Art,
 3rd International Engineering Symposium (IES 2013), Kumamoto University, Japan, March
 4-6, 2013;
 Manjunath S.B, Ravishankar A.U and Narasimhan M.C

. Alkali-activated binder systems for pavement quality concrete

. VIII CUTSE International Conference, Miri, Sarawak, Malaysia Dec 3-4, 2013

5. Mithun B.M and Mattur C. Narasimhan

. Self-cured Alkali-activated slag Concrete Mixes – An Experimental Study

. VIII CUTSE International Conference, Miri, Sarawak, Malaysia, Dec 3-4, 2013

6. Manjunatha S.B., Ravishankar A.U., and Narasimhan M.C.

. Alkali-activated binder systems for pavement quality concrete using Dredged marine sand as fine aggregate, . Minomata International Symposium on Environment and Energy Technology (Mission 2013), Kumamato, Japan, Dec 4-6, 2013

7. Dileep Kumar, Ranjani M.V., Narasimhan M.C, and Santhosh Kumar M

. Performance of Recycled Aggregate Concrete Mixes – A Study Based on Taguchi's DOE Method, UKIERI Concrete Congress on Innovations in Concrete Construction, Jalandhar, March 5-8, 2013

R & D Project Handled

<u>"Hydrogen Loaded Concrete",</u>

. Board of Research in Nuclear Sciences, DAE-GOI, 2012-16.

Courses Taught

Post-graduate Level:

1. Theory Of Elasticity & Plasticity 2. Finite Element Method

3. Stability Of Structures 4. Advanced Concrete Technology

Undergraduate Level:

1. Engineering Mechanics 2. Strength of Materials

3.Fluid Mechanics4. Design of RCC Structures5. Design of Steel Structures6. Structural Design and Drawing 7. Advanced Design of Structures

Membership Of Professional Societies

1) Life Member, Indian Concrete Institute (M 3831)

2) Life Member, Indian Society of Earthquake Technology (LM589)

3) Life Member, The Indian Society for Technical Education (LM3804)

4) Associate Member, The Instituion of Engineers (India) (AM55445)

5) Life Member, Association of Consulting Civil Engineers (L-1157)

AWARDS

Recipient of ICI (Bengaluru Centre)-UltraTech Endowment Award "Concrete Teacher of Karnataka 2021" .

Invited as Expert by External Agencies/Organizations

1) Member, NBA-AICTE Team for accreditation of Bachelors' program in Civil Engineering, Technocrats Institute of Technology, Bhopal

2) Member, UGC-Teams for grant/Extension of Autonomous Status within VTU to(i) Vidyavardhaka College of Engineering Mysore and (ii) New Horizon College of Engineering, Bengaluru

3) Examiner for Masters' degree thesis evaluation – NIT Calicut, NIT Agartala, CUSAT Kerala, Autonomous Institutes under VTU Karnataka, including KLE Institute of Tech, and KLS' Gogte Institute of Technology, Belagavi, NMAM Institute of Technology, Nitte, PDA College of Engineering, Gulbarga., etc.,

2. PhD Thesis Reviewer for SVNIT Surat, MNIT Jaipur, MNNIT Allahabad, NIT Thiruchirapally, VTU Belagavi, Bangalore University, Manipal University, Kuvempu University, JNTU Hyderabad, JNTU Kakinada, Shivaji University, Kolhapur, CUSAT Kochi, Jain University, Bengaluru

3) Evaluator for Student Projects submitted to Karnataka State Council for Science & Technology

4) Member of Board of Studies/Academic Council/ Internal Quality Assurance Cell of Autonomous Institutes under VTU like SJCE, Mysore, NIE Mysore, KLS's Gogte Institute of Technology Belagavi, Global Academy of Technology, Bangalore, Christ University Bangalore, and NMAM Institute of Tech. Nitte etc.

5) Subject Expert for Faculty Selection at Kuvempu University Shivamogga, and KLE University, Belagavi, and St. Joseph Engineering Mangaluru.

(6) Member, Building Committee, Mangalore University, Konaje

(7) Member, Governing Body, DK Nirmithi Kendra, NITK Campus, Surathkal,

(8) Member, NITK English Medium School Trust, NITK Campus, Srinivasnagar

(Dr.M.C.Narasimhan)