



Dr. MOHANKUMAR NAMDEORAO BAJAD

Professor, Department of Civil Engineering

 mnbajad@sinhgad.edu

OVERVIEW:

Qualifications: Ph.D. (Civil Engg.), ME (Structural)
Experience: Teaching -25 years
Date of Joining STES: 25/08/2006
Skills and Proficiencies: Structural Analysis and Design Program,
Computer Aided Design,
Maharashtra State Certificate in Information Technology

SIGNIFICANT ACHIEVEMENTS:

- Recognized Post Graduate Teacher and Ph. D research Guide of Savitribai Phule Pune University, Pune.
- Sole author of Structural Engineering Books.
- Reviewer of Science Citation Index Expanded (SCIE) and Scopus Index Journals.
- Citations = 300+
- Research Papers = 175+
- FDP Attended = 60+

AREA OF EXPERTISE /RESEARCH INTERESTS:

- **Area of Interest:** Innovations in broad spectrum of advances in science and technology of sustainable materials with structural mechanics, analysis and design.
- **Area of Work:** New developments in Civil Engineering

NUMBER OF STUDENTS GUIDED:

- Ph.D.- 02, PG – 28, UG – 19 Groups

RESEARCH PULICATIONS:

- <https://orcid.org/0000-0003-1056-0178>
- <https://www.scopus.com/authid/detail.uri?authorId=55358183900>
- <https://publons.com/researcher/4621534/mohankumar-bajad>
- <https://scholar.google.com/citations?user=jM10I3sAAAAJ>

RESEARCH WORK:

Advances in science and technology of concrete

BOOK PUBLICATIONS:

- Mohankumar Namdeorao Bajad (07-03-2017), “Science and Technology of Concrete- The Leading Material in Sustainable Construction”, ISBN-13:978-3-330-03954-4 / ISBN-10:333003954X / EAN: 9783330039544 / Book Language: English, Number of Pages:340 / Category: Technology / Price 79.90 € , LAMBERT Academic publishing , Germany (www.lap-publishing.com).
- M. N. Bajad, V.R. Phadke (2010), “Concrete Technology”, ISBN 938006474-8, Book Code-N1019, Nirali prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2011), “Structural Design-I”, ISBN 938244802-0, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad (2011), “Structural Design-II”, ISBN 935164126, Book Code-N1143, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2011), “Structural Design-III”, ISBN 938159500-3, Book Code-N1344, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2013), “Concrete Technology-NMU” ISBN 938352553-3, Book Code-N3004, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2013), “Concrete Technology-BAMU”, ISBN 938352559-2, Book Code-N2660, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2014), “Concrete Technology-UoM”, ISBN 978-93-5099-648-5, Technical Publications & Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2014) “Structural Design-I (NMU)”, Book Code-N2276, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2014) “Structural Design-II (NMU)”, ISBN 935164394-8, Book Code-N3341, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2015) “Design and Drawing of Steel Structure (UoM)”, ISBN 978-93-5099-944-8, Technical Publications & Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2015) “Theory of Reinforced and Prestresses Concrete (UoM)”, ISBN 978-93-332-0143-8, Technical Publications & Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- W. N. Deulkar, M. N. Bajad, (2015), “Concrete Technology-SU”, ISBN 935164469-3, Book Code-N3373, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2015) “Limit State Method for Reinforced Concrete Structures (UoM)”, ISBN 978-93-332-0512-2, Technical Publications & Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, R. L. Wankhede, (2015), “Design of Steel Structures -SU”, ISBN 935164774-9, Book Code-N3402, Nirali Prakashan, Pune - 411005, Maharashtra, India (www.pragationline.com).
- Bhupesh K. Katariya, Dhaval M. Patel, Abhijitsinh Parmar, M. N. Bajad, (2016), “Concrete Technology-GTU”, ISBN 935164981-4, Book Code – N2464, Nirali Prakashan, Pune -411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2016) “Design and Drawing of Reinforced Concrete Structure (UoM)”, ISBN 978-93-332-0963-2, Technical Publications, Pune - 411005, Maharashtra, India (<https://technicalpublications.org/>).
- M. N. Bajad, (2021), “Design of Steel Structures (SPPU)”, Book Code – N5878, ISBN: 978-93-5451-353-4, Nirali Prakashan, Pune -411005, Maharashtra, India (www.pragationline.com).
- M. N. Bajad, (2022), “Design of Reinforced Concrete Structures (SPPU)”, Book Code – N6072, ISBN:978-93.5451-485-2, Nirali Prakashan, Pune -411005, Maharashtra, India (www.pragationline.com).

- M. N. Bajad, (2022), “Advanced Design of Reinforced Concrete Structures (SPPU)”, Book Code – N6405, ISBN:935451719-6, Nirali Prakashan, Pune -411005, Maharashtra, India (www.pragationline.com).

NOTABLE GUIDED PROJECTS:

- Investigation on Graphene Additive Concrete and Its Application
- Strengthening of castellated steel beams with concentric and eccentric web opening
- The Influence of Soil Conditions on The Seismic Forces in RC Buildings
- Behaviour of Hybrid Coupled Shear Wall
- Flexural Torsional buckling resistance design of steel circular arches
- Evaluation of effective slab-width for composite cable stayed bridge
- Study of column shortening in high rise buildings using construction stage analysis
- A methodology to select construction equipment acquisition method
- Speculative study and analysis of execution of smart city in Pune: smart transportation and waste management
- Lateral Torsional Buckling of Cold-Formed Channel Section
- Risk Analysis and Strategic Evaluation of Procurement Process in Construction
- Computation of Flexural Parameters in Isotropic Beams Using Hyperbolic Shear Deformation Theory
- Strengthening of reinforced concrete beams using GFRP
- Response of Building by Using Tuned Mass Dampers
- Comparative Cost and Time Analysis of Kumkung and Conventional Technique of Construction
- Time Optimization in Road Reconstruction
- Seismic Response of Structural System with Setback Profiles
- Determination of Shear Stresses for various Aspect Ratios in Beam
- Effect of GFRP rebars in RC Beams
- Performance analysis of elevated water tank in various seismic zones and on different soil conditions
- Study of influence of degree of loading on concrete
- Seismic analysis of RCC building with autoclaved aerated block and red brick
- Analysis and Design of Business Hub at Hyderabad, India Using Composite Structural Technology
- Performance Evaluation of High-Rise Building
- Structural Behaviour of Lightweight Concrete Sandwich Panel
- Study of Soil Structure Interaction and Seismic Response of Base Isolated Steel Frame with Buckling Restrained Braced Damping System
- Static and dynamic analysis of automated car parking tower systems
- Seismic analysis of multi-storied RC open ground storey building with RC diagonal strut and shear walls
- Experimental Analysis of Steel Reinforced Concrete Filled Steel Tubular Stub Column Under Axial Compression
- Seismic Evaluation of RCC Beam-Column Connections Modified Using Various Methods
- Effects of chloride and sulphate attack on properties of conglascrete
- Effect of Recycled Aggregate and Fly Ash in Concrete
- Performance Based Seismic Design Approach of Building
- Study of Physical Properties of Concrete with Marble Waste as A Coarse Aggregate
- Cost Optimization Using Aluminium Formwork
- The Study of Seismic Behaviour of RC Frames with Vertical Irregularities
- Analysis and Retiming of a Signalized Intersection
- Utilization of Industrial Wastes for Stabilization of Black Cotton Soil
- Utilization of Marble Slurry for Stabilization of Soil
- Experimental Investigation of Papercrete Brick – An Innovative Building Material

- Influence of GGBS on Properties of Concrete
- Experimental Investigations on Concrete Containing GGBS
- Precast Reinforced Concrete Truss with Prestressed Tie
- Rapid Decomposition of Solid Waste Materials by Using Composting Culture Technique
- Stabilization Of Black Cotton Soil by Using Industrial Waste
- Estimation of Hydrological and Hydraulics Parameters for Bridge Design
- Performance Analysis of Natural Cooling Tower
- Experimental Investigation on Brick Containing Plastic Waste
- Utilisation of Sugarcane Bagasse Ash in Concrete Paving Blocks

MEMBERSHIP OF PROFESSIONAL BODIES:

- Indian Concrete Institute (ICI), Chennai, Tamil Nadu, India- [Life Member No.9496, with effect from Jan.2012]
- Indian Association for Structural Engineering (IASE), New Delhi, Uttar Pradesh, India
- Indian Association for Computational Mechanics (Ind ACM), IIT Bombay, Maharashtra, India
- Indian Society for Technical Education (ISTE), New Delhi, Uttar Pradesh, India - [Life Member No. – 104129, with effect from 2015]
- Indian Society of Structural Engineers (ISSE), Mumbai, Maharashtra, India - [Life Member No. – 1430, with effect from 7th April, 2015]
- International Association of Engineers (IAENG), Hong Kong, SAR China, - [Life Member No. – 241154, with effect from 2nd July, 2019]

EDITORIAL BOARD MEMBERSHIP:

- American Journal of Civil Engineering
- Asian Basic and Applied Research Journal
- Iconic Research and Engineering Journals
- International Journal of Civil, Structural, Environmental and Infrastructure Engineering Research and Development
- International Journal of Engineering & Advanced Technology
- International Journal of Innovative Technology and Exploring Engineering
- International Journal of Multidisciplinary Research and Development
- International Journal of Recent Technology & Engineering
- International Journal of Research and Innovation in Applied Science
- International Journal of Research and Scientific Innovation

REVIEWER OF JOURNALS/CONFERENCES:

- Academic Platform Journal of Natural Hazards and Disaster Management
- Acta Geotechnica
- Alexandria Engineering Journal
- Building Engineering
- Computers and Concrete, An International Journal
- Discover Applied Sciences
- Discover Civil Engineering

- Emergent Materials
- ICEEEE 2024 Conference
- International Conference on Sustainable Development organized by Savitribai Phule University and Sinhgad College of Engineering, Pune
- International Journal of Sustainable Construction Engineering and Technology
- Iranian Journal of Science and Technology, Transactions of Civil Engineering
- Journal of Applied Science and Engineering
- Journal of Natural and Applied Science
- Journal of Sustainable Construction Materials and Technologies
- Multiscale and Multidisciplinary Modeling, Experiments and Design
- Scientific Reports
- The Open Civil Engineering Journal
- The Open Construction & Building Technology Journal
- Two Days National Conference on Panchtatva in Civil Engineering- Integrating Five Elements of Nature for Sustainable Development
- World Journal of Engineering

RESOURCE PERSON TO INDUSTRY/ACADEMIA:

- Worked as resource person at Centrally funded technical institute under the ownership of the Ministry of Education, Government of India workshop/seminar/conference/FDP/STTP
- Worked as resource person at Self-funded technical institutes for workshop/seminar/conference/FDP/STTP

SUBJECTS TAUGHT:

- Engineering Mechanics
- Strength of Materials
- Structural Analysis
- Design of RCC
- Design of Steel Structures
- Design of Bridges
- Concrete Technology
- Management in Structural Engineering

FDP/STTP/SDP/WORKSHOPS ORGANIZED AS A COORDINATOR:

- Two days Seminar “Mando – Gyan 15”, organized on 18th & 19th January, 2015 by Department of Civil Engineering, Sinhgad College of Engineering, Pune.
- National Conference on Smarter Cities – India 2015: Smarter Solutions for a Better Tomorrow (SCI – 2015), organized on 8th & 9th June, 2015 by Department of Civil Engineering, Sinhgad College of Engineering, Pune.
- Two days Sustainable Engineering – Theme Event, organized on 15th & 16th February, 2024 by Department of Civil Engineering, Sinhgad College of Engineering, Pune.

CONFERENCES ATTENDED:

- 2022 International Conference on Materials and Sustainable Manufacturing Technology (ICMSSMT 2022), Organized by Sri Eshwar College of Engineering, Coimbatore, Tamil Nādu, India, on May 20-21, 2022

- Invention, and Innovation Congress (RI2C 2022) Organized by King Mongkut's University of Technology North Bangkok (KMUTNB), Thailand on 4-5th August 2022.
- International Conference on Smart Materials and Structures (ICSMS 2022), Organized by Department of Civil Engineering, Venkatadri Institute of Technology (VVIT) On 15-16th February 2022
- International Conference on 4th Innovative Product Design and Intelligent Manufacturing Systems (IPDIMS) during 25th & 26th November 2022, jointly organized by Department of Industrial Design & Department of Mechanical Engineering of NIT Rourkela.

FDP/STTP/SDP ATTENDED:

- 1/2/3 Days: -16
- 1 week :-17
- 2 week :-03

One to Three days

- **Entrepreneurship Awareness Programme** organized by MCED, Osmanabad (M.S.) on 10th & 11th Oct.2005.
- **Workshop on “Rain Water Harvesting and Watershed Development”** Organized by Department of Civil Engineering, Govt. College of Engineering, Aurangabad (M.S.) on 21st August 2005
- **State Level Technical Paper Presentation** Held at Pravara Rural Engineering College Loni (M.S.) On 30th March 2005 (presents technical paper on **State-of-the-Report on Ferro cement and F.R.C.**)
- Three days Continuing **Education Program** on “**Self-Learning Multimedia Aids Using Flash**” from 11th to 13th July 2007, jointly organized by Sinhgad College of Engineering, Pune and Kunal IT services Sinhgad. Pune.
- **State Level Technical Paper Presentation** Held at Sinhgad College of Engineering, Pune from 16th to 17th March 2007 (presents technical paper on **Durability of concrete**)
- Two days National symposium on **Pre-Engineered Buildings (PEB)**, organized by Department of Civil Engineering, Sinhgad College of Engineering, Pune in association with Tata BlueScope steel Ltd.in between 25th & 26th July 2009.
- One day workshop on **Provisions in IS 456 (Revised 2000) and its implications** sponsored by University of Pune, organized by, Department of Civil Engineering, Rajarshi Shahu College of Engineering, Pune.
- Two days’ workshop on **Engineering Mechanics-Effective Teaching Methodology**, organized on 8th & 9th January 2009 by Department of Civil Engineering, Vishwakarma Institute of Information Technology, Pune.
- Two days Seminar on **Planning Aspects for a Project: concept to completion** held on 7th & 8th March 2009, organized by Department of Civil Engineering, Sinhgad College of Engineering, Pune.
- **The Teachers Advancement Program – Level 1 & 2** conducted from 28th to 30th October, 2013 at Sinhgad Technical Education Society, Pune.
- National Conference on **Smarter Cities – India 2015: Smarter Solutions for a Better Tomorrow** (SCI – 2015), organized on 8th & 9th June, 2015 by Department of Civil Engineering, Sinhgad College of Engineering, Pune.

- Two days' workshop on **Disaster Management** sponsored by Board of student's welfare, Savitribai Phule Pune University, organized on 8th & 9th March, 2016 by Department of Civil Engineering, Sinhgad College of Engineering, Pune.
- One day state level workshop on “**NBA Accreditation – An Outcome Based Approach**” Organized on Saturday, 28th December 2019 by Internal Quality Assurance Cell, Dhole Patil College of Engineering, Pune.
- Online **YOGA** quiz jointly organized on 20th June, 2020 by Department of Physical Education and Department of Computer Science of Shree Dnyaneshwar Maskuji Burugale Science and Art College, Shegaon on the eve of 6th International Day of Yoga
- National level workshop on Implementation of NEP-2020 ‘Adoption of multiple entry and exit’ on 24th & 25th February 2023 under quality improvement program in association with Savitribai Phule Pune University
- International workshop on “ Effective Supervision and the Modern Doctorate” organized with Centre for Publication Ethics (CPE) and Centre for Complementary and Integrative Health (CCIH), Department of Health Sciences, Savitribai Phule Pune University (SPPU) under the NIWASm project being coordinated by the Bioinformatics Centre, Savitribai Phule Pune University (SPPU) and Department of Natural Sciences and Environmental Health funded by UTFORSK grant awarded to University of South-Eastern Norway and Savitribai Phule Pune University (SPPU) on March 19th, **2024**

One Week

- **AICTE** Sponsored Staff Development program me on “**Effective Teaching**” between 22nd & 26th October 2007 Organized by Sinhgad College of Engineering, Department of Computer Engineering Pune
- **ISTE** Approved Short- Term Training Programme on **Earthquake Resistant Design of RC Buildings** under **TEQIP** Held from 17th to 21st December 2007 organized by Department of Applied Mechanics, College of Engineering, Pune
- National workshop On **Design of Steel structures using Revised IS 800:2007**, organized by Department of civil Engineering, Sinhgad College of Engineering, Pune from 30th June to 4th July 2009.
- **AICTE** Sponsored Short Term Training Program me on **Advanced Design of Steel Structure using (Revised) IS: 800-2007**, organized by Applied Mechanics Department, S.V.N.I.T. Surat during 3rd to 7th August 2009.
- One-week faculty development programme on scope of **Finite Element Method in Civil Engineering** organized by Department of Civil Engineering, Sinhgad College of Engineering, Pune on 9th to 13th December 2013.
- Short Term Training Program on “**Assessment and Evaluation under Outcome Based Education (ICT04)**” between 10th June to 14th June 2019 Organized by NITTTR, Kolkata at Sinhgad Institute of Technology and Science, Narhe, Pune-41

- One week online “**Short Term Training Program on Renewable Energy & Utilization**” during 26-30 May, 2020 organized by Department of Mechanical Engineering, Sandip Institute of Engineering & Management, Nashik.
- International Faculty Development Program on “**Research Methodology and Techniques**” organized by Sandip Institute of Engineering and Management Nashik from 04/07/2020 to 06/07/2020.
- One-week STTP on “**Teaching Learning Pedagogies**” Approved and funded by **All India Council for Technical Education**, New Delhi – Quality Improvement Scheme (AQIS), conducted by Department of Mechanical Engineering, A. G. Patil Polytechnic Institute, Solapur from 7th September to 12th September 2020
- **TEQIP – III** sponsored workshop cum faculty development program (FDP) on “**Recent Trends of Research in Civil Engineering Structures**” (**RTRCES 2020**)” organized by Dept. of Civil Engineering, NIT Rourkela from September 22nd -26th , 2020.
- One Week International Workshop on “**Durability of Concrete (IWODOC - 2020)**” organized by the Department of Civil Engineering, National Institute of Technology Karnataka, Surathkal, India in Association with Indian Concrete Institute Mangalore Centre, The Institution of Engineers (India) Mangalore Local Centre & The Indian Concrete Journal during 26th - 30th October 2020.
- Five days online Short-Term Course on “**Machine Learning and Its Application to Civil Engineering (MLACE 2020)**” from November 02-06,2020 organized by Department of Civil Engineering and sponsored by **TEQUIP – III**, National Institute of Technology Srinagar Hazratbal-190006 Jammu & Kashmir, India
- **TEQIP III** sponsored Short Term Training Program on “**Air Pollution: Sources, Control and Modelling**” organised by Civil Engineering Department, SVNIT, Surat from 15th – 19th February,2021.
- **AICTE** Sponsored One Week Online Faculty Development Programme on “**Futuristic Trends in Civil Engineering**” held from 5th to 10th July 2021 at New Horizon College of Engineering, Bengaluru.
- **One Week Faculty Development Programme** through ICT Mode on **Institutional Management** organized National Institute of Technical Teachers Training and Research (**NITTTR**) Kolkata (Established by the Ministry of Education Government of India) Institute from 14th November to 18th November, 2022
- **One Week Faculty Development Programme / Short Term Training Programme** on Commentary IS:456-2000 with expected Modifications in the Forthcoming Revision organised by National Institute of Technical Teachers Training and Research (**NITTTR**) Kolkata (Established by the Ministry of Education Government of India) Institute from 8th January to 12th January, 2024
- **One Week Faculty Development Programme / Short Term Training Programme** on Cloud Computing and HPC organised by National Institute of Technical Teachers Training and Research (**NITTTR**) Kolkata (Established by the Ministry of Education Government of India) Institute from 5th February to 9th February, 2024.

Two Week

- **AICTE** Sponsored Induction Training Programme for develop **basic teaching competency** between 26th November to 8th December 2007 organized by NITTTR at Extension Center Pune.
- Two-week **ISTE** workshop on **Engineering Mechanics** conducted by **IIT Bombay** under the National Mission on Education through ICT (MHRD, Government of India) during 26th November to 06th December,2013.
- **Two Week Faculty Development Programme / Short Term Training Programme on Advanced Pedagogy** organised by National Institute of Technical Teachers Training and Research (**NITTTR**) Kolkata (Established by the Ministry of Education Government of India) Institute from 15th January to 26th January, 2024.

RESPONSIBILITIES HANDLED AT STES/SCOE/DEPT:

- Sr. Supervisor
- Dead Stock Verification Chairman
- Purchase Committee Central Committee Member
- Building Development and Maintance central Committee Member
- Admission Departmental Coordinator and Central Committee Member
- NBA/NAAC Departmental Coordinator
- Quality Circle Committee Departmental Coordinator

DECLARATION:

I hereby declare that all the above information furnished by me are true to the best of my knowledge.



Date: 16 / 12 / 2024

Signature