

FAYAZ A. SOFI, Ph.D., A.M.ASCE, M.SEI, M.ICI, F IAStructE

Civil Engineering Department • NIT Srinagar - 190006 • sofifayaz@nitsri.ac.in • ☎: (+91) 9797 205130

Research Interests

- *Steel Structures and Finite Element Simulations*
- *Double-Skin Tubular Columns (Composite and Hybrid)*
- *Behavior of Steel Girders and Girder Bridges (Composite, partially-composite, flat and corrugated webs)*
- *Asset Management and Structural Health Monitoring of Bridges.*
- *Machine Learning Applications in Structural Engineering.*

Assistant Professor (Structural Engineering)
Department of Civil Engineering
National Institute of Technology
sofifayaz@nitsri.ac.in
sofifayaz@gmail.com

EDUCATION

Doctor of Philosophy: Structural Engineering, **GPA: 4.0/4.0**, *University of Nebraska - Lincoln, USA*, Dec. 2017.

Dissertation: Structural System-based Evaluation of Steel Girder Highway Bridges and Artificial Neural Network (ANN) Implementation for Bridge Asset Management

Advisor: Prof. (Dr.) Joshua S. Steelman

Master of Technology: Structural Engineering, **GPA: 9.73/10**, *Indian Institute of Technology Bombay, India*, May 2006.

Thesis: Condition Assessment of Concrete Bridge Girders using Dynamic Properties

Advisor: Prof. (Dr.) Alok Goyal

Bachelor of Technology: Civil Engineering, Hons. (**Gold Medalist**), *National Institute of Technology Srinagar, India*,

Dec. 2002.

EXPERIENCE (TEACHING, RESEARCH AND INDUSTRY)

Assistant Professor (Structural Engineering): Dept. of Civil Engineering, NIT Srinagar, India. Oct. 2018 – present.

Graduate Research / Teaching Assistant: Department of Civil Engineering, University of Nebraska - Lincoln, USA. Jan. 2014 – Dec. 2017.

Assistant Executive Engineer: Public Works Department, Govt. of Jammu and Kashmir, India. Jan. 2008 – Dec. 2013; Jan. 2018 – Oct. 2018.

Graduate Teaching Assistant: Department of Civil Engineering and Engineering Mechanics, University of Arizona, AZ. Aug. 2007 – Dec. 2007.

Design Engineer: Material Application Lab., **General Electric**, John F. Welch Technology Centre, Bangalore, India. Jun. 2006 – Jul. 2007.

Graduate Research / Teaching Assistant: Department of Civil Engineering, Indian Institute of Technology Bombay, India, Jul. 2004 - May 2006.

Consulting Engineer: Jammu and Kashmir Railway Line Project, Konkan Railway Corporation Ltd., India, Jul. 2003 - June 2004.

Structural Engineer (6 months): Consulting Engineers Pvt. Ltd Srinagar, Jammu and Kashmir, India, Jan. 2003 - June 2003.

COURSES TAUGHT

National Institute of Technology Srinagar, Oct. 2018 – present.

Undergraduate Courses

- CIL100 Engineering Mechanics
- CVT354 Advanced Structural Analysis

- CVT201 Structural Analysis- I
- CVT250 Structural Analysis- II
- CVT305 Structural Analysis-III
- CVT350 Design of Structures-II (Steel Design)
- CVT402 Structural Dynamics
- CVT451 Bridge Engineering
- CVL201 Structural Analysis Lab- I
- CVL301 Concrete Laboratory

Postgraduate Courses

- CSEM-101 Advanced Structural Analysis
- CSEM-201 Finite Element Methods in Civil Engineering
- CSEM-306 Reliability Based Civil Engineering Design

University of Nebraska - Lincoln, USA, Jan. 2014 – Dec. 2017.

Undergraduate Courses (TA)

- CIVE 341 Introduction to Structural Engineering

University of Arizona, USA, Aug. 2007 – Dec. 2007

Undergraduate Courses (TA)

CE 210 Engineering Graphics

HONORS AND AWARDS

- Outstanding paper presented on the theme of strengthening using FRP composites repair, rehabilitation, retrofitting and restoration of structures at *International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)*, IIT Hyderabad, India (Dec. 2023).
- Regular Assistant Professorship offer (2019), Department of Civil Engineering, IIT Jammu (2019).
- Graduate Research Assistantship (2014 – 2017), University of Nebraska-Lincoln (UNL), NE.
- International Road Federation Fellowship 2016, Washington D.C., USA.
- College of Engineering Graduate Student Conference Travel Grant 2016, UNL, NE.
- Graduate Research Assistantship for M. Tech. (2004-2006), IIT Bombay, India.
- University Gold Medal (B.Tech. Civil Engineering), NIT Srinagar, India.

PROFESSIONAL MEMBERSHIPS, JOURNAL REVIEWER AND TRAININGS / OUTREACH

Reviewer Services:

- Engineering Structures (Elsevier).
- Journal of Bridge Engineering (ASCE).
- Buildings (MDPI).
- Journal of Constructional Steel Research (Elsevier).
- Structures (Elsevier).
- Alexandria Engineering Journal (Elsevier).

Professional Memberships:

- ASCE Associate Member (#000009818498)
- Structural Engineering Institute of ASCE Member (# 9818498)
- Indian Concrete Institute (Coordinator for J & K Centre; member): Life membership (#13856)
- Indian Association of Structural Engineers: Fellow (F IAStructE; #F - 545)

Professional Trainings and Fellowships:

- Training-of-Trainers: Workshop on Structural Dynamics and Earthquake Engineering, IIT Bombay, 2023.
- Training-of-Trainers: Workshop on Seismic Design of Reinforced Concrete Structures, IIT Madras, 2023.
- Training-of-Trainers: Workshop on Seismic Design of Steel Structures, IIT Bombay, 2023.
- International Road Federation Fellow, 2016.
- Certification of Successful Teaching Assistant Training, UNL, USA, 2016.

Other Outreach Activities:

- Presented two (02) research papers and attended the *International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)*, IIT Hyderabad, India (December, 11-13, 2023).
- Member Board of Studies (BOS), Department of Civil Engineering, Islamic University of Science & Technology,

Awantipora (Oct. 2023- present).

- Expert talk on “Modern Tubular Columns for Civil Engineering Applications”, *Prototype House for Kashmir*, CIED-IUST Foundation, Islamic University of Science & Technology (October 18, 2023).
- Presented research paper and attended The International Association for Bridge and Structural Engineering (IABSE) Congress 2023, New Delhi, India (September 20-22, 2023).
- Attended two-days workshop on “Design and Construction of Concrete Bridges”, the Indian Concrete Institute, Chennai, Tamil Nadu (August 18-19, 2023).
- Coordinated Opening Ceremony of 46th Jammu and Kashmir Centre of Indian Concrete Institute (ICI) at NIT Srinagar, (June 30-July 1, 2023).
- Expert talk on “Confined Concrete Behavior of Modern Double-Skin Tubular Columns for Civil Engineering Applications”, Opening Ceremony of 46th Jammu and Kashmir Centre of ICI, NIT Srinagar (June 30, 2023).
- Expert talk on “Double-Skin Tubular Columns with Stiffeners: Modern Optimized Columns for Civil Engineering Applications”, One-week training workshop, *Catastrophe and Civil Engineering Solutions*, NIT Srinagar (June 2022).
- Expert talk on “Structural System-Based Evaluation of Steel Girder Highway Bridges and Artificial Neural Network (ANN) Implementation for Bridge Asset Management”, One-week AICTE sponsored workshop, *Disaster Mitigation (Civil Engineering Perspective)*, NIT Srinagar (June 2022).
- Expert talk on “Compressive Behavior and Nonlinear Load Carrying Capacity of Multiple-shape Concrete Filled Double-Skin Steel Tubular Columns”, Navkis College of Engineering, Karnataka (July 27, 2020).

FUNDED RESEARCH PROJECTS

S. No.	Agency	Project description	Funding		
			Amount (INR)	Duration	Role
1.	SERB (Science & Engineering Research Board)	SERB National Post-Doctoral fellowship for Dr. Inaam Qazi File Number: PDF/2023/001973 under Mentorship of Dr. F. A. Sofi.	28,65,600	2024-2026	Mentor
2.	JKST&IC (Dept. of Science & Technology)	Estimating Compressive Strength of Concrete using Deep Convolution Neural Networks- An Efficient Nondestructive Testing Method	10,80,000	2024-2026	PI

FACULTY DEVELOPMENT PROGRAMS, SHORT TERM COURSES AND WORKSHOPS

- “Advances in Structural Engineering and Materials”, one-week STC (15-19th February, 2021), Coordinator.
- “Software Applications in Civil Engineering”, one-week STC (26-30th October, 2020), Coordinator.

ADMINISTRATIVE RESPONSIBILITIES (NIT SRINAGAR)

- Associate Dean (Civil and Infrastructure), (Ongoing), Nov. 2023-present.
- NIT Srinagar Coordinator for Indian Concrete Institute (ICI).
- Institute Coordinator for procurement and usage of ANSYS Software.
- Departmental member for Institute level NBA and NEP Committee for revising B.Tech. Curriculum (Ongoing), Dec. 2022-present.
- Faculty member I/C monitoring and strengthening of implementing of schemes of Department of Higher Education, School Education & Literacy and Skill Development for Srinagar District (Ongoing), Nov. 2021-present.
- NIRF ranking 2021-22, Civil Engineering Departmental Coordinator (OI), 2021-22.
- Estates Officer (Planning & Development), Feb. 2019 – Feb. 2021.
- Executive Engineer (Civil; Planning & Development), Nov. 2019 – Feb. 2020.
- Assistant Executive Engineer (Civil; Planning & Development), Aug. 2020 – March 2021.
- NIRF ranking 2020-21, Civil Engineering Departmental Coordinator (GO & OI), 2020-21.

- Convener Project Monitoring Committee, NIT Srinagar, Nov. 2019 – March 2020.
- Chairperson Designing of Banners Committee (Convocation), Feb. 2020 – March 2020.
- Member-Secretary (WiFi Monitoring Committee), Feb. 2019 – March 2020.
- Coordinator Equity Action Plan under TEQIP III, Dec. 2018 – March 2020.
- Warden (P.G. and Tawi Hostels), Nov. 2018 – Nov. 2019.

DEPARTMENTAL RESPONSIBILITIES (CIVIL ENGINEERING, NIT SRINAGAR)

- Faculty I/C Structural Engineering Lab. (ongoing), July 2019-present.
- Faculty Coordinator (B.Tech. 3rd and 4th semesters), August 2021 – present.
- Faculty Coordinator (B.Tech. 7th & 8th semesters), August 2020-July 2021.
- Faculty Coordinator (B.Tech. 5th and 6th semesters), August 2019-July 2020.
- National Board of Accreditation (NBA) Departmental Coordinator (Criteria-2), June 2019-August 2021.
- Member Departmental Faculty Board, Nov. 2018 – present.

JOURNAL PUBLICATIONS

Published

1. **Sofi F. A.**, Farooq I., Wani H., and Qayoom T. (2024) "New confined concrete stress-strain model for square double-skin FRP-concrete-steel stiffened tubular columns", In press, *ASCE, Practice Periodical on Structural Design and Construction*. DOI: <https://doi.org/10.1061/PPSCFX/SCENG-1494>
2. Kumar S. A., Bhat J. A, **Sofi F. A.**, Dar M.A. (2024). "Experimentally and numerically verified behaviour of splice joints under multiple loading conditions and their capacity predictions using artificial neural networks", *Elsevier, Structures*, 60 (2024), 105917, 1-11. DOI: <https://doi.org/10.1016/j.istruc.2024.105917>
3. Kumar S. A., **Sofi F. A.** and Bhat J. A. (2023) "Equivalent flat-web thicknesses and modified flange-based moment resistance for corrugated-web steel I-girders", *Elsevier, Journal of Constructional Steel Research*, 107946, Vol. 207, 1-21. DOI: <https://doi.org/10.1016/j.jcsr.2023.107946>
4. Kumar S. A., **Sofi F. A.** and Bhat, J. A. (2023) "Estimation of patch-loading resistance of steel girders with unequal trapezoidal web-corrugation folds using nonlinear FE models and artificial neural networks", *Elsevier, Structures*, Vol. 48 (2023) 1651–1669, DOI: <https://doi.org/10.1016/j.istruc.2023.01.049>
5. Joo M. R. and **Sofi F. A.** (2022) "Unified Approach for Estimating Axial-Load Capacity of Concrete-Filled Double-Skin Steel Tubular Columns of Multiple Shapes Using Nonlinear FE Models and Artificial Neural Networks", *ASCE, Practice Periodical on Structural Design and Construction*, Vol. 28, Issue 2 (May 2023). DOI: [https://doi.org/10.1061/\(ASCE\)SC.1943-5576.0000752](https://doi.org/10.1061/(ASCE)SC.1943-5576.0000752)
6. Zakir M. and **Sofi F. A.** (2022) "Experimental and nonlinear FE simulation-based compressive behavior of stiffened FRP-concrete-steel double-skin tubular columns with square outer and circular inner tubes", *Elsevier, Engineering Structures*, 260, 114237, <https://doi.org/10.1016/j.engstruct.2022.114237>
7. Zakir M., **Sofi F. A.** and Behera S. (2021) "Nonlinear finite element analysis of circular stiffened FRP-concrete-steel double-skin tubular columns (DSTCs) and experimental compressive behavior of multiple DSTC shapes", *Elsevier, Structures* 34 (2021) 3283–3299, DOI: <https://doi.org/10.1016/j.istruc.2021.09.076>
8. Zakir M., **Sofi F. A.** and Naqash J. A. (2021) "Compressive testing and finite element analysis-based confined concrete model for stiffened square FRP-concrete-steel double-skin tubular columns", *Elsevier, Journal of Building Engineering*, 44 (2021), 103267, DOI: <https://doi.org/10.1016/j.jobbe.2021.103267>

9. Zakir M., **Sofi F. A.** and Naqash J. A. (2021) "Experimentally Verified Behavior and Confinement Model for Concrete in Circular Stiffened FRP-Concrete-Steel Double-Skin Tubular Columns", *Elsevier, Structures*, 33, 1144-1157, DOI: <https://doi.org/10.1016/j.istruc.2021.05.010>
10. **Sofi F. A.**, Steelman J. S. (2021) "Using committees of artificial neural networks with finite element modeling for steel girder bridge load rating estimation", *Elsevier, Structures*, 33, 533-553, DOI: <https://doi.org/10.1016/j.istruc.2021.04.056>
11. **Sofi F. A.**, Steelman J. S. (2019) "Nonlinear Flexural Distribution Behavior and Ultimate System Capacity of Skewed Steel Girder Bridges", *Elsevier, Engineering Structures*, 197, 109392, DOI: <https://doi.org/10.1016/j.engstruct.2019.109392>
12. **Sofi F. A.**, Steelman J. S. (2017) "Parametric Influence of Bearing Restraint on Nonlinear Flexural Behavior and Ultimate Capacity of Steel Girder Bridges", *ASCE, Journal of Bridge Engineering*, 22(7), 04017033, DOI: [https://doi.org/10.1061/\(ASCE\)BE.1943-5592.0001065](https://doi.org/10.1061/(ASCE)BE.1943-5592.0001065)
13. **Sofi F. A.**, Kulkarni S., Haarda M., and Takaaki N. (2008) "A Novel Energy Absorber Design Technique for an Idealized Force-Deformation Performance", *SAE International Technical Paper 2008-01-0184, World Congress and Exhibition*, Detroit, Michigan, , DOI: <https://doi.org/10.4271/2008-01-0184>

CONFERENCE PROCEEDINGS PUBLICATIONS AND PRESENTATIONS

Peer-reviewed

1. Beigh A. R., Mushtaq R., Kumar S.A., and **Sofi F. A.** (2024). "Comparative Flexural Behavior of Steel Girders with Flat versus Trapezoidal and Sinusoidal Corrugated Webs", Conference Proceedings and Presentation, *Eighth International Civil Engineering Symposium (ICES 2024)*, IIT Bombay, India.
2. Hassan A., Bhat J. A., and **Sofi F. A.** (2023). "Experimental and Analytical Compression Behavior of Stiffened Concrete-filled Double-Skin Tubular Columns", Conference Proceedings Paper ID: 291, *International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)*, IIT Hyderabad, India.
3. **Sofi F. A.** and Kharate V. (2023). "Axial Load-Moment Interaction Behavior of Circular FRP-Concrete-Steel Double-Skin Tubular Columns", Conference Proceedings Paper ID: 18, *International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)*, IIT Hyderabad, India.
4. **Sofi F. A.**, Joo M. R. and Rajak S. (2023). "Experimental Study on Crumb-Rubberized Concrete: Mechanical Properties and SEM Analysis", Conference Proceedings Paper ID: 188, *International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)*, IIT Hyderabad, India.
5. **Sofi F. A.**, Sultan S., and Kumar S. A. (2023). "Flexural Behavior of Perforated Steel Beams with Multiple Web Corrugations and Openings", Conference Proceedings Paper ID: 435, *the International Association for Bridge and Structural Engineering (IABSE) Congress, New Delhi 2023: Engineering for Sustainable Development*, Report. pp. 1339-1347. DOI: <https://doi.org/10.2749/newdelhi.2023.1339>
6. **Sofi F. A.**, Joo M. R., Seetharaman R., Zakir M. (2020) "Compressive Behavior and Nonlinear Load Carrying Capacity of Multiple-shape Concrete Filled Double-Skin Steel Tubular Columns", Conference Proceedings Paper-SM-20-032, *1st Online International Conference on Recent Advances in Computational and Experimental Mechanics (ICRACEM 2020)*, Indian Institute of Technology Kharagpur, India.
7. **Sofi F. A.**, Rashid M., Kumar S. A., Bhat J. A. (2020) "Estimation of Patch Load Capacity of Steel I-Girders with Corrugated Webs using FE models and Artificial Neural Networks", Conference Proceedings Paper-IM-20-008,

1st Online International Conference on Recent Advances in Computational and Experimental Mechanics (ICRACEM 2020), Indian Institute of Technology Kharagpur, India.

8. **Sofi F. A.**, Zakir M., Naqash J. A. (2020) "Experimentally Verified Behavior of Multiple-shape Hybrid FRP-Concrete-Steel Double Skin Tubular Columns under Axial Compression", Conference Proceedings Paper-EM-20-006, *1st Online International Conference on Recent Advances in Computational and Experimental Mechanics (ICRACEM 2020), Indian Institute of Technology Kharagpur, India.*
9. Garcia F., Garfías J. P., **Sofi F. A.**, Steelman J. S. (2020) "Integration of Artificial Neural Networks in Bridge Load Rating and Case Study Application", presentation (20-05766), *Bridge Load Rating (1304), Standing Committee on Testing and Evaluation of Transportation Structures & Standing Committee on Bridge Management, Transportation Research Board 2020, Washington, D.C.*
10. Sharma A., Balaganesan G., **Sofi F. A.**, Kushvaha V. (2019) "Impact Energy Absorbing Capability of Micro-scale Chopped and Continuous Glass Fiber Reinforced Composite", presentation, *The 12th International Symposium on Plasticity and Impact Mechanics, IMPLAST 2019, Republic of Korea.*
11. **Sofi F. A.**, Lin X., Garcia F., Steelman J. S. (2019) "Supporting Bridge Management with Advanced Analysis and Machine Learning", presentation, *Standing Committee on Maintenance and Operations Management – AHD10, Transportation Research Board 2019, Washington, D.C.*
12. **Sofi F. A.**, Steelman J. S. (2018) "Structural Evaluation Augmented with Artificial Neural Networks with a Demonstration for Bridge Management", presentation, *ASCE Structures Congress 2018, Fort Worth, TX.*
13. **Sofi F. A.**, Steelman J. S. (2018) "Supporting Bridge Management with Refined Load Ratings Estimated using Machine Learning", presentation, *Standing Committee on Structures Maintenance - AHD30, Transportation Research Board 2018, Washington, D.C.*
14. **Sofi F. A.**, Steelman J. S. (2016) "Fully Nonlinear System Capacity and Load Distribution at Ultimate for Composite Steel Girder Bridges", poster presentation, *Conference proceedings, 33rd International Bridge Conference (IBC) 2016, National Harbor, MD.*
15. **Sofi F. A.**, Steelman J. S. (2015) "Performance Evaluation of Composite Steel Girder Highway Bridges using Bridge Geometrics and Artificial Neural Networks", poster presentation, *Bridge-ing Big Data Workshop, Omaha, Nebraska.*

Graduate Research Fair, University of Nebraska-Lincoln

16. **Sofi F. A.**, Steelman J. S. (2017) "Influence of Skew and Nonlinear Deck on Elastic versus Inelastic Distribution Behavior and Ultimate Capacity of Steel Girder Bridges", poster presentation, Graduate Research Fair, University of Nebraska – Lincoln, <http://digitalcommons.unl.edu/fayaz-sofi>.
17. **Sofi F. A.**, Steelman J. S. (2016) "Fully Nonlinear System Capacity and Load Distribution at Ultimate for Composite Steel Girder Bridges", poster presentation, Graduate Research Fair, University of Nebraska – Lincoln.

BOOK CHAPTERS

1. **Sofi F. A.**, Joo M. R., Seetharaman R., Zakir M. (2022) "Compressive Behavior and Nonlinear Load Carrying Capacity of Multiple-Shape Concrete Filled Double-Skin Steel Tubular Columns", *Recent Advances in Computational and Experimental Mechanics, Vol—I. Lecture Notes in Mechanical Engineering. Springer, Singapore.* https://doi.org/10.1007/978-981-16-6738-1_39.

2. **Sofi F. A.**, Zakir M., Naqash J. A. (2022) "Experimentally Verified Behavior of Multiple-Shape Hybrid FRP-Concrete-Steel Double-Skin Tubular Columns Under Axial Compression", *Recent Advances in Computational and Experimental Mechanics, Vol—I. Lecture Notes in Mechanical Engineering*. Springer, Singapore. https://doi.org/10.1007/978-981-16-6738-1_14.
3. **Sofi F. A.**, Farooq I., Bhat J. A., Tantray M.A. (2022) "Quantifying the sensitivity of input parameters in an ANN-based committee networks model for estimation of steel girder bridge load-ratings", In: *Kushvaha, V., Sanjay, M.R., Madhushri, P., Siengchin, S. (eds) Machine Learning Applied to Composite Materials. Composites Science and Technology*. Springer, Singapore. https://doi.org/10.1007/978-981-19-6278-3_8.
4. **Sofi F. A.**, Wani H., Zakir M., Tantray M.A. (2022) "Estimating axial load capacity of concrete-filled double-skin steel tubular columns of multiple shapes using genetic algorithm-optimized artificial neural networks", In: *Kushvaha, V., Sanjay, M.R., Madhushri, P., Siengchin, S. (eds) Machine Learning Applied to Composite Materials. Composites Science and Technology*. Springer, Singapore. https://doi.org/10.1007/978-981-19-6278-3_9.

DOCTORAL DISSERTATIONS SUPERVISING / AWARDED

1. Rabia Rafiq (2022PHACIV015). *Behavior of Corrugated-web steel girders with Multiple Types of Web Openings*, (Supervisor, in progress).
2. Tafazul Qayoom (2021PHACIV002). *Experimental and Analytical Behavior of Stiffened Fibre Reinforced Polymer (FRP) Concrete-Steel Double-Skin Tubular Columns (DSTCs) under Eccentric Compression* (Supervisor, in progress).
3. Vaqas Hussain Sheikh (2019PHACIV020). *Behavior of Partially Composite Steel Girder Bridges: Element and System Level Study*, (Supervisor, in progress).
4. Sumit Rajak (2019PHACIV017). *Experimental and Analytical Behavior of Stiffened Fibre Reinforced Polymer (FRP) Rubberized Concrete-Steel Double-Skin Tubular Columns (DSTCs) under Axial Compression*, (Supervisor, in progress).
5. Tanveer Habib (2019PHACIV014). *Comprehensive Mechanisms of Interface Shear Transfer in Reinforced Concrete.*, (Co-supervisor, in progress).
6. Showket Ahmad Kumar (2017PHACIV011). *Element and System-Level Nonlinear Behavior of Trapezoidally Corrugated Web Steel I-Girder Bridges*, (Co-supervisor, awarded April 2024).
7. Mohd Zakir (2017-FOE-PhD-Spring-24). *Experimental and Analytical Behavior of Stiffened Fibre Reinforced Polymer (FRP) Concrete-Steel Double-Skin Tubular Columns (DSTCs) under Axial Compression*, (Co-supervisor, awarded March 2022).

MASTERS THESES SUPERVISED

1. Vaishnavi Mohan Kharate (2021MCIVST001). *Axial Load-Moment Interaction Behavior of Stub-Type Circular FRP-Concrete-Steel Double-Skin Tubular Columns*, (Supervisor, Awarded-2023).
2. Mohd Salman Sultan (2021MCIVST004). *Flexural Behaviour of Perforated Steel Beams with Multiple Web Corrugation Profiles and Openings*, (Supervisor, Awarded-2023).
3. Ahmer Farooq Bhat (2021MCIVST024). *Sensitivity in a Genetic-Algorithm Optimized Artificial Neural Network Model for Estimating Axial Load-Capacity of CFDST Columns of Multiple Shapes*, (Supervisor, Awarded-2023).

4. Mudasir Aziz Wani (2021MCIVST021). *Moment and Shear Distribution Factors of Steel Girder Bridges for IRC Loadings*, (Supervisor, Awarded-2023).
5. Irfan Ahmad (2020MCIVST003). *Structural Evaluation and Retrofitting of Khankah (Mosque) for Shrine Complex of Sheikh Noor-Ud-Din Noorani (R.A.) at Chrar-I-Sharief – A Case Study*, (Supervisor, Awarded-2022).
6. Numan Khurshid (2020MCIVST011). *Nonlinear Compressive Behavior of Stiffened FRP-Concrete-Steel Double-Skin Tubular Columns for Variations in Geometric and Material Characteristics*, (Supervisor, Awarded-2022).
7. Owais Ahad Dar (2020MCIVST029). *Lateral Load Distribution Behavior of Steel Girder Highway Bridges and ANN-based Predictions for Moment Distribution Factors*, (Supervisor, Awarded-2022).
8. Syed Asrar-ul Haq (2020MCIVST016). *Influence of Skew on Ultimate Load Capacity and Inelastic Lateral Load distribution of Steel Girder Highway Bridges*, (Supervisor, Awarded-2022).
9. Mohd Haseeb Shora (2019MCIVST008). *Compressive Behavior and Axial Load Capacity of Square Steel-Concrete-Steel Double-Skin Tubular Columns with Stiffeners*, (Supervisor, Awarded-2021).
10. Huzaif Shafi. (2019MCIVST020). *Finite Element Modelling and Comparative Behavior of Multiple Shape Steel-Concrete-Steel Double-Skin Tubular Columns with Stiffeners*, (Supervisor, Awarded-2021).
11. Nasir Ahmad Ahanger (2019MCIVST008). *Inverse Damage Detection Using Sequential Quadratic Optimization and Dynamic Properties*, (Supervisor, Awarded-2021).
12. Tafazul Qayoom (19MST1019). *Non-Linear FE Modelling and Compressive Behavior of Multiple Shape CFDST Columns*, (Ext. Supervisor, Awarded-2021).
13. Seetharaman R. (2018MCIVST007). *Compressive Behavior and Nonlinear Load Carrying Capacity of Multiple-shape Concrete Filled Double-skin Tubular Columns*, (Supervisor, Awarded-2020).
14. Yasir Akbar (2018MCIVST009). *Nonlinear Behavior and Ultimate Torsional Capacity of Steel I-Girders with Corrugated Webs*, (Supervisor, Awarded-2020).
15. Sanjeev Kumar (2018MCIVST016). *Nonlinear Behavior and influence of Curvature on Patch-load capacity of Horizontally Curved Steel I-Girders with Corrugated Webs*, (Supervisor, Awarded-2020).
16. Asim Mushtaq (2018MCIVST014). *Parametric Influence of Curvature on the Shear Behavior of Horizontally Curved Steel I-Girders with Corrugated Webs.*, (Supervisor, Awarded-2020).
17. Jay D. Kantharia (2017MCIVST017). *Finite Element Models and Artificial Neural Networks to Estimate Moment Distribution Factors for Steel Girder Highway Bridges.*, (Supervisor, Awarded-2019).
18. Babu Lal Chauhan (2017MCIVST019). *Estimation of Shear Distribution Factors for Steel Girder Highway Bridges using Finite Element Models and Artificial Neural Networks.*, (Supervisor, Awarded-2019).
19. Waseem Maqbool (2017MCIVST02). *Analysis of Steel Girder Highway Bridges using FE Models and Committee Neural Networks.*, (Co-supervisor, Awarded-2019).

BACHELORS THESES SUPERVISED

1. Umer A. Khan (2019BCIV094) and Vishav Mahajan (2019BCIV097). *Development of Nonlinear Finite Element Modelling Framework for Trapezoidal Corrugated-Web Steel Girder Bridges in Excel-VBA and ANSYS-APDL*, (Supervisor, Awarded-2023).
2. Krishan K. Githala (2019BCIV045), Hariom (2019BCIV116) and Tasaduq A. Wani. (2019BCIV011). *Confined Compressive Strength of Rubberized Concrete in Tubular Columns*, (Supervisor, Awarded-2023).
3. Pushkar Jat (2019BCIV120). *Nonlinear Pushover Analysis of a Framed G+4 Building*, (Supervisor, Awarded-2023).
4. Hazim Wani (2018BCIV015). *Inverse Damage Detection in Structures Using Dynamic Properties and Genetic Algorithm-Based Optimization*, (Supervisor, Awarded-2022).
5. Irqab Farooq (2018BCIV010). *Analysis Oriented Confinement Model for Concrete in Stiffened FRP-Concrete Steel Double-Skin Tubular Columns*, (Supervisor, Awarded-2022).
6. Syed Mohsin Mehdi (2018BCIV001). *Estimating Axial Load Capacity of Concrete-Filled Double-Skin Steel Tubular Columns (CFDST) of Multiple Shapes Using Hybrid Genetic Algorithm (GA)-Optimized Artificial Neural Networks (ANNs)*, (Supervisor, Awarded-2022).
7. Shaiq Farooq (2018BCIV043) and Rohit Kumar (2018BCIV115). *Analysis and Design of a Six Storey Luxury Hotel*, (Supervisor, Awarded-2022).
8. Danish Bashir (2017BCIV031), Owase A. Teeli (2017BCIV001) and Afroz (2017BCIV107). *Design of Multi-Span Highway Bridge with Pre-stressed Concrete Superstructure*, (Supervisor, Awarded-2021).
9. Faizan Ul Haq (2017BCIV038), Syed Faheem Tahir (2017BCIV008) and Vineet Kumar (2017BCIV057). *Single Span Steel Highway Bridge Design* (Supervisor, Awarded-2021).
10. Mudasir Ahmad Kumar (CIV-370/16). *Sensitivity of Design Set Size for Estimation of Bridge Load Ratings by Artificial Neural Networks (ANNs)*, (Supervisor, Awarded-2020).
11. Meer Mehran Rashid (CIV-362/16). *Estimation of Patch Load Capacity of Corrugated Web Girders using FE Models and Artificial Neural Networks (ANNs)*, (Supervisor, Awarded-2020).
12. Mohammad Rafiq Joo (CIV-115/16). *Multiple Shape Double-skin Tubular Column Nonlinear Capacity Estimation using Finite Element-based Artificial Neural Networks (ANNs)*, (Supervisor, Awarded-2020).

SELECTED CONSULTANCY PROJECTS

S. No.	Agency	Project description	Date	Role
21.	Ecno Safe Designs & Constructions Pvt. Ltd. Yatri Bhawan II, Srinagar	Proof checking and structural vetting of foundation design for 220 KV Transmission Line Towers of "ZATL".	2023	PI
20.	Chief Engineer, PMGSY (JKRRDA), Jammu	Proof checking and vetting of structural drawings for three single-span bridges (22 m on Km 6th and RD 175-200m, 30 m on Km 9th RD 0-30m, and 30 m on Km 5th RD 670-700m) on Jaman to Gagra road Package No. JK14-484 & 485, Gool, Ramban.	2023	PI

19.	M/S Civil Creations, Karan Nagar, Srinagar - Jammu and Kashmir	Proof checking and vetting of structural drawings for Town Hall at Frisal Kulgam, MRD Registration Centre at SKIMS and Conference Hall at Halqa Kangan-B.	2023	PI
18.	Innovative Consulting Engineer Munawarabad Srinagar	Proof checking design and vetting of structural drawings for shopping complex at Pattan of R&B Division Baramulla	2023	PI
17.	Ecno Safe Designs & Constructions Pvt. Ltd. Yatri Bhawan II, Srinagar	Proof checking and vetting of structural drawings for 39 m (3-span) Foot-over-bridge at Chuntikul Srinagar	2023	PI
16.	Ecno Safe Designs & Constructions Pvt. Ltd. Yatri Bhawan II, Srinagar	Proof checking and vetting of Single lane (2 x 25 m) bridge at Karam Buland Astan Sharief Chadoora.	2023	PI
15.	Northern Eco Earth Design Solution, Kargil	Proof checking and technical vetting of drawings for the construction of NTPHC Batalik, Kargil, UT Ladakh.	2023	PI
14.	Chief Architect, D' Himalayan Architect and Designer, Kargil.	Proof checking and vetting of structural drawings for construction of Horse Polo Stadium at Drass, Kargil, Ladakh.	2022	PI
13.	General Manager (Engg.), Srinagar Smart City Limited,	Structural safety audit of Piers of Old Amira-Kadal Bridge	2022	PI
12.	Deputy General Manager, Unit Budgam, JKPCC Ltd. Haft Chinar, Srinagar.	Proof checking and technical vetting of drawings for the construction of New Govt. Degree College at Soibugh Budgam.	2022	PI
11.	Project Engineer, SICOP Kashmir	Proof checking of design for deep drain and authentication of work estimate.	2022	PI
10.	Executive Engineer, TLMD-VI, JKPTCL Bemina, Srinagar.	Proof checking and vetting of structural drawings of pile foundations for 06 No. electric transmission towers for 132 kV D/C IRCON Budgam Line.	2022	PI
9.	Executive Engineer, R&B Division Khanabal	Proof checking of design calculations and vetting of structural drawings for 1 x 20 m span Steel Plate Girder Bridge at Hajjipora, Anantnag	2021	PI
8.	Chief Executive Officer, Bhadarwah Development Authority	Proof checking of design calculations and vetting of structural drawings for various building structures	2021	PI
7.	Khanday Infrastructure (P) Ltd. for R&B Kashmir	Proof checking of design and drawings for the construction of 1 x 20 m steel girder composite bridge at Chainage 79+643 m at Khargund Chowgam NH-444 Package III RD.	2021	PI
6.	Jammu and Kashmir Project Construction Corporation Ltd.	Structural Safety Audit of Khankah (Mosque) For Shrine Complex of Sheikh Noor-Ud-Din Noorani (R.A.) At Charar-I-Sharief	2021	PI
5.	Executive Engineer Central Public Works Department Srinagar	Structural Design of Boundary Wall for Customs and Central Tax GST Division at Solina, Srinagar, J&K	2021	PI
4.	Chief Engineer (Highways) Public Works Department, Aizawl, Mizoram	Proof checking report of abutment design and drawings for construction of 20m span steel girder bridge over Ruankhum (Br-08) on package-I in Kaladan Multimodal Transit Transport Project in the state of Mizoram.	2021	Co-PI
3.	Executive Engineer (R&B)	Technical Vetting of Proposed Community Hall at	2021	PI

2.	Div. Pulwama Chief Engineer PW(R&B) Kashmir	Awantipora Proof checking of design for 110.0 m span, 2-lanes steel arch bridge on Sindh Nallah at Wayil Ganderbal.	2020	PI
1.	Executive Engineer PMGSY Budhal	Design of 25 m span motorable bridge in Km 9th at RD 610 on road from Km 12th of LO 27 Kotecharwal, Rajouri	2019	PI

Sd/
Dr. Fayaz Ahmad Sofi,
Assistant Professor,
Department of Civil Engineering

FAYAZ A. SOFI, Ph.D.

Civil Engineering Department • NIT Srinagar - 190006 • sofifayaz@nitsri.ac.in • ☎: (+91) 9797 205130

REFERENCES

Dr. Daniel Linzell, P.E.

Voelte-Keegan Professor and Former Chair
Associate Dean for Graduate and International Programs
College of Engineering, Department of Civil Engineering
University of Nebraska–Lincoln, NE
844 N 16th ST
N115 Scott Engineering Center
P.O. Box 886105
Lincoln, NE 68588-6105

☎: (402)-472-8036 (L)

: (402)-554-3272 (O)

✉: dlinzell@unl.edu

Former Professor / Ph.D. Supervisory Committee member

Dr. Joshua S. Steelman, P.E.

Assistant Professor (Structural Engineering)
Department of Civil Engineering
University of Nebraska–Lincoln, NE
2200 Vine Street
362P Prem S. Paul Research Center
P.O. Box 830856
Lincoln, NE 68583-0856

☎: (402) 472-1972

Fax: (402) 472-0859

✉: joshua.steelman@unl.edu

Former Professor / Ph.D. Advisor

Dr. Alok Goyal

Professor (Structural Engineering)
Department of Civil Engineering
Indian Institute of Technology Bombay, Powai - 400076
Mumbai, India

☎: +91-222-576-7342

Fax: +91-222-576-7302

✉: agoyal@civil.iitb.ac.in

Former Professor / Master's Advisor