

Faculty Profile



Dr. Sunil S is an Assistant Professor in the Department of Civil Engineering at R.V. College of Engineering, Bengaluru, with over 11 years of academic. He holds a Ph.D. in Civil Engineering Science from VTU and is currently a Post-Doctoral Fellow at the Institute for Social and Economic Change (ISEC), Bengaluru. His primary research interests include Traffic and Transportation Engineering, Traffic Simulation using VISSIM, Pavement Material Characterization, and Sustainable Urban Mobility. He has published extensively in national and international journals and conferences, led funded research projects on road safety and smart infrastructure, and actively contributed to consultancy and training programs with government and private sector stakeholders.

Personal Information

- **Name:** Dr Sunil S
- **Designation:** Assistant Professor (Senior Scale)
- **Department:** Civil Engineering
- **Email:** sunils@rvce.edu.in
- **Phone:** 080-68188186

Google Scholar: SuvTCW0AAAAJ

ResearchGate: Sunil-Siddaraju?ev=hdr_xprf

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Scopus Id: 57211624263

Domain of Expertise

- Smart Transportation Infrastructure

Research Focus

- **Primary Area:** Traffic Engineering and Simulation and Pavement Engineering
- **Allied Areas:**
 - Sustainable Construction Materials
 - Urban Mobility & Infrastructure Planning

Academic Qualifications

- **Ph.D.:** Civil Engineering Science, Visvesvaraya Technological University, 2025
- **M.Tech:** Transportation Engineering and Mgmt., Visvesvaraya Technological University, 2013
- **B.E.:** Civil Engineering, Visvesvaraya Technological University, 2013
- **Postdoctoral Research:** Institute for Social and Economic Change, [Pursuing]

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	RV College of Engineering, Bengaluru	Assistant Professor	May 2014–till date

Publications & Patents

Journal Publications

1. Channabasavesh Jidagi, Sunil S. “Road Safety Audit for the Major Roads in Bengaluru Connecting Arterial Road” Journal of Civil Engineering, Volume 6. No. 3, Page no 43–51, June–August 2016, ISSN–2231–1068.
2. Raksheet Somannavar, Sunil S. “Evaluation of Pedestrian Level of Service at Major Intersection of South Bengaluru City ”Journal of Civil Engineering, Volume 6. No. 3, Page no52–56, June–August 2016, ISSN–2231–1068.
3. Sanjana Jagadeesh, Sunil S “Optimization of Heterogeneous Non Lane Based Traffic at Signalized Intersection using VISSIM” Journal of Transportation Engineering and its Applications Volume 3. No. 1, Page no 27–41, 2018.
4. Varuna M, Sunil S, Durga Prashanth L “Traffic Simulation for Improved Travel Corridor Performance – A Case Study in Bengaluru City ” International Journal of Advance Civil Engineering and Technology, Volume 3, Issue2,pp 1-12,2018.
5. Gautham Raj B R, Sunil S, Varuna M, Durga Prashanth L, “Development of Micro Simulated VISSIM Model for Signalized Intersection”, i-Manager's Journal on Civil Engineering,Vol. 10, Iss. 1, 2020, 22–30. <https://doi.org/10.26634/jce.10.1.15558>.
6. Pruthviraj, T. N., Tallolli, C., Gowda, H. P., Nagabhushan, K. M., and Sunil, S. (2024). Optimization of Lane Based Signalized Intersections through VISSIM at Outer Ring Road Bengaluru. i-manager's Journal on Civil Engineering, 14(2), 8–17. <https://doi.org/10.26634/jce.14.2.20878>.
7. Sunil S, K.M.Mallesha, T. Chandrasekaraiah “Experimental Investigations On The Performance Of Bituminous Mixes With Reclaimed Asphalt Pavement (RAP) Materials (Case Study Tumkuru To Chitradurga–Nh4)”, International Journal of Research in Engineering and Technology, eISSN:2319–1163,Volume: 03 ,Special Issue: 06, May–2014, RRDCE 2014.
8. Sunil S, Vinay H N “Rehabilitation of Low Volume Flexible Pavements by White Topping–A Case Study”, International Journal of Research in Engineering and Technology, eISSN: 2319–1163Volume: 03, Special Issue: 06, May–2014, RRDCE 2014.
9. Varuna M, Sunil S, Durga Prashanth L “Traffic Simulation for Improved Travel Corridor Performance – A Case Study in Bengaluru City”, International Journal of Advance Civil Engineering and Technology, Volume 3, Issue 2,2018, Page 1–12.
10. Lokeshwari M, Raghavendra T, Sunil S, Vageesh H P and Durga Prashanth L “Replacement of fine aggregate in self curing concrete by quarry dust and granite fines” Pollution Research, Volume

40, Issue 4, December 2021, pages 1561-1566.

11. G Shiva Kumar, Nitin G C, Gurudeep G, Sunil S, Ujwal M S, H K Ramaraju. 2025, "Laboratory Performance of Sustainable Stone Matrix Asphalt Mixtures Utilizing Electric Arc Furnace Slag and Waste Plastic". Journal of Road Engineering.

Conference Papers

12. S Sunil and M S Nagakumar "Laboratory Evaluation of Engineering and Strength Properties for Semi Rigid Mixtures", 2020 IOP Conf. Ser.: Mater. Sci. Eng. 1006 012034.
13. M. Varuna, S. Sunil, Anjneyappa, M.S. Amarnath, Studies on warm stone asphalt mixes using natural and synthetic fibres, Materials Today: Proceedings, Volume 46, Part 10, 2021, Pages 5098-5103, ISSN 2214-7853, doi.org/10.1016/j.matpr.2020.10.497.
14. S. Sunil, M. Varuna, M.S. Nagakumar, Performance evaluation of semi rigid pavement mix, Materials Today: Proceedings, Volume 46, Part 10, 2021, Pages 4771-4775, ISSN 2214-7853, doi.org/10.1016/j.matpr.2020.10.311.
15. Anusha, T. M., Jagadeesh, H. S., Sunil, S. (2019). Experimental investigation of open graded mixes using reclaimed asphalt pavement. IOP Conference Series: Materials Science and Engineering, 561(1), 012061. doi.org/10.1088/1757-899X/561/1/012061.
16. V. Anjaneyappa, M. Varuna, M. R. Archana, S. Sunil, R. Holla, B. M. Mahendra, and S. S. Vaidya, "Smart phone for measurement of reflectivity of road pavement markings," in Proc. 8th Int. Conf. Comput. Syst. Inf. Technol. Sustain. Solutions (CSITSS), 2024, doi: 10.1109/CSITSS64042.2024.10817066.
17. Pavan R Vyas, Sunil S "Prioritization of Block spots Using Road Safety Audit Methodology-A Case Study", 8th Annual KSTA conference, Science and Technology for GenNext Urban Space, BIT Bengaluru, page no 32.
18. Pavan Kumar D, Sunil S, K.M.Malles, "Design and Construction Of Low Volume Rural Roads Using Reclaimed Materials", two day National conference on Recent research advances in Civil Engineering 2014, Department Of Civil Engineering, University College Of Engineering, Osmania University Hyderabad.
19. Bharathi S, Madhu M B, Durga prashanth, Varuna M, Sunil S, A review on Bus transit operations using intelligent transportation system in Indian Context", Organized by R V College of Engineering on Leveraging Intelligent transportation system for enabling smart cities "2-4 th March 2017.
20. Lohith G, Mamatha G, Harshit P Jain, Kavyashree K, Sunil S, Evaluating the Factors contributing /affecting Safety and Security A Case Study", Organized by R V College of Engineering on Leveraging Intelligent transportation system for enabling smart cities, 2-4 th March 2017.
21. Sunil S "Laboratory Investigation of Open Graded Friction Course Mixes with Construction and Demolition Waste Aggregates" 5th Colloquium Transportation Systems Engineering and Management (CTSEM2018) NIT Warangal, May 17-19, 2018.
22. Sunil S, M S Nagakumar "Experimental Investigation of Open Graded Cement Grouted Bituminous Mixes" 5th Colloquium Transportation Systems Engineering and Management (CTSEM2018) NIT Warangal, May 17-19, 2018.
23. Shankar Kodekal, Sunil S, M S Nagakumar "Performance studies on Semi Rigid Mixes with incorporation of Construction and Demolition aggregates", 6th Colloquium on Transportation Systems Engineering and Management (CTSEM)-SVNIT, Surat, June 14-15, 2019.
24. Mohammed Junaid, Sunil S, Anirudh N, M S Nagakumar "Studies on Mechanical properties of Semi Rigid Pavement", 6th Colloquium on Transportation Systems Engineering and Management (CTSEM)-SVNIT, Surat, June 14-15, 2019.

25. Aditya S N, Mahendra, Naveen, Lavanya, Sunil S "Influence of Cement Grouts in properties of Semi Rigid Pavement", 6th Colloquium on Transportation Systems Engineering and Management (CTSEM)-SVNIT, Surat, June 14-15, 2019.
26. Hemanth T C, Sunil S, M S Nagakumar "Investigation on Engineering properties of Semi rigid mixes", 6th Colloquium on Transportation Systems Engineering and Management (CTSEM)-SVNIT, Surat, June 14-15, 2019.
27. Aditya S N, Mahendra, Naveen, Lavanya, Sunil S "Laboratory Investigations on Semi Rigid Pavement", Jnana Sangama conference, Vivekananda College of Engg. & Technology, Puttur, 11th May 2019.
28. Sunil S, M S Nagakumar and Varuna M "Mechanical Properties of Open Graded Cement Grouted Bituminous Mixes Incorporation of Construction and Demolition Aggregates", 5th Conference of Transportation Research Group of India (CTRG) 18-21 December 2019, MANIT Bhopal, India.
29. Varuna M, Deepak Raikar and Sunil S "Studies on Temperature Differential for Different Types of Overlay over Cement Concrete Pavement", 5th Conference of Transportation Research Group of India (CTRG) 18-21 December 2019, MANIT Bhopal, India.
30. Sunil, S., Durga Prashanth, L., Raghavendra, T., Vageesh, H.P. and Lokeshwari, M. "Flowability and Strength of Cement Mortar Grout for Semi Rigid Pavement", Second ASCE Conference in India on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020)", Volume No. 1 (ISBN: 978-93-5396-500-6), Edition: 2020 (Edition No. 1), pp 303.
31. Vageesh, H.P., Lokeshwari, M., Durga Prashanth, L., Raghavendra, T., and Sunil, S. "Structural Behaviour Comparison of ECBCDC, Mivan and Framing Systems for Seismic Analysis of Multistoried Building", Second ASCE Conference in India on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020)", Volume No. 1 (ISBN: 978-93-5396-500-6), Edition: 2020 (Edition No. 1), pp 310-11.
32. Lokeshwari, M., Raghavendra, T., Sunil, S., Durga Prashanth, L. and Vageesh, H.P. "Replacement of Fine Aggregate in Self Curing Concrete by Quarry Dust and Granite Fines", Second ASCE Conference in India on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020)", Volume No. 1 (ISBN: 978-93-5396-500-6), Edition: 2020 (Edition No. 1), pp 205.
33. Raghavendra, T., Vageesh, H.P., Lokeshwari, M., Sunil, S., and Durga Prashanth, L "Mechanical and Durability Properties of Sustainable Concrete", Second ASCE Conference in India on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020)", Volume No. 1 (ISBN: 978-93-5396-500-6), Edition: 2020 (Edition No. 1), pp 220.
34. Lohith Kumar.K. M., M. S. Nagakumar, Sunil. S "Laboratory Studies on Open Graded Bituminous Course using Groundnut Shell Powder as filler material" International Conference on New Horizons in Civil Engineering with the theme, Innovative Civil Engineering Materials and Systems (NHCE-ICEMS 2024) organized by Department of Civil Engineering, Manipal Institute of Technology, Manipal.
35. Vasanti Patil, Varuna M, and Sunil Siddaraju. "Enhancing cold mix bituminous concrete with bagasse ash and GGBS as a filler: A study on mechanical properties." International Conference on New Horizons in Civil Engineering: Innovative Civil Engineering Materials and Systems (NHCE-ICEMS 2024), Manipal Institute of Technology, Manipal, 2024.
36. Kushaal R Raj ., Sunil S., and G. Shiva Kumar. "Laboratory investigation of warm mix asphalt mixtures using wet bond and cashew shell nut liquid." International Conference on New Horizons in Civil Engineering: Innovative Civil Engineering Materials and Systems (NHCE-ICEMS 2024), Manipal Institute of Technology, Manipal, 2024.

37. Manas, S. N., Sunil S., and G. Shiva Kumar. "Laboratory evaluation of waste toner as a modifier in stone matrix asphalt mixes." International Conference on New Horizons in Civil Engineering: Innovative Civil Engineering Materials and Systems (NHCE-ICEMS 2024), Manipal Institute of Technology, Manipal, 2024.
38. Manas, S. N., Sunil, S., & Shivakumar, G. (2024). Performance analysis of stone matrix asphalt mixes using waste toner. Proceedings of the International Conference on Sustainable Infrastructure: Innovations, Opportunities, and Challenges (SIIOC 2024), April 30 – May 1, 2024, NITK Surathkal, India.
39. Kushaal R Raj., Sunil S., and G. Shiva Kumar. "Laboratory investigation of warm mix asphalt mixture using WetBond and cashew shell nut liquid." International Conference on Sustainable Infrastructure: Innovations, Opportunities, and Challenges (SIIOC 2024), 30 Apr.–1 May 2024, NITK Surathkal, India.

Books/Book Chapters

40. Akshitha, B.N., Balreddy, M.S., Sunil, S. "Laboratory investigation of stone mastic asphalt using reclaimed asphalt pavement", Materials Today: Proceedings, Volume 60, Part 1, 2022, Pages 668–673, <https://doi.org/10.1016/j.matpr.2022.02.274>.
41. M. Varuna, Deepak Raikar, and S. Sunil, "Studies on Temperature Differential for Different Types of Overlay Over Cement Concrete Pavement", Lecture Notes in Civil Engineering, Volume 218, 2022. DOI: 10.1007/978-981-16-9921-4_27.
42. Raghavendra, T., Vageesh, H.P., Lokeshwari, M., Sunil, S., Durga Prashanth, L., " Engineering Properties of Concrete Containing Hazardous Drywalls Waste and GGBS "Recent Advances in Civil Engineering. Lecture Notes in Civil Engineering, Vol 233. May 2022. https://doi.org/10.1007/978-981-19-0189-8_36.
43. N. Anirudh, G. S. Mallikarjuna, S. Sunil, and M. Bhojaraj "Studies on Engineering Properties of Cement Mortar Grout Using Fly Ash and Stone Dust", Lecture Notes in Civil Engineering, Vol. 456, 2024. <https://doi.org/10.1007/978-981-99-9458-8>.

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

1. Title: Environmental problems and congestion: Evolving Sustainable solutions for Bengaluru Development
Funded: Karnataka Evaluation Authority (KEA), GoK
Amount: 72 lakhs
PI: ISEC, Bengaluru
Consultant: Dr Sunil S
2. Title: Studies on Retro-Reflective Properties of Pavement Markings
Funded: 3M India Limited, Bengaluru, Karnataka 560100
Amount: 2.5 lakhs
PI: Dr Anjaneyappa
Co PI: Dr Archana M R, Dr Varuna M, Dr Sunil S

Ongoing & Completed Consultancy Projects

- Design of Culverts (Box Culvert) & Design of DLC, PQC Mix Design and Design of Concrete Service Roads, BREN Corporation, Bengaluru, Karnataka (2,04,750 Rs).
- Mix design for Granular Sub Base, Wet Mix Macadam and Dense Graded Bituminous Macadam (DBM) Grade-1, BREN Corporation, Bengaluru, Karnataka (1,85,239 Rs.)
- Soil investigation consultancy work at Hanur, Chamarajanagar District for the Hanur Water Supply Project – RDW&S Dept, GoK. (2,74,522 rs)
- Benkelman Beam Deflection studies carried out at Chitradurga and Bengaluru for Bureau Veritas (India) Pvt. Ltd.(1,14,000 rs) and Benkelman Beam Deflection studies carried out at Tumkuru smart city for IPE Global. (1,23,000 rs).
- Mix design for Dense Graded Bituminous Macadam (DBM) Grade-1 for Bureau Veritas (India) Pvt. Ltd.(90,000 rs)
- Mix design of M20 and M30 grade concrete at Gundamagere MVS, Doddaballapura for Aquapure Engineering and Infrastructures Private Limited. (50,000 rs)
- Material testing services for NPCC Ltd, Karnataka State Cooperative Federation Ltd. Bengaluru. (50,000 rs)
- Material testing and consultancy services for L&T IDPL, Chennai (1, 75, 000 rs).
- Material testing and consultancy services Professional Civil Infra Pvt. Ltd, Bengaluru. (5,25,000 rs) and Feedback Infra Private Limited, Bengaluru.(9,75,000 rs)
- Coordinator for training programs conducted for KPWD and BBMP Government Engineers from Civil Engineering department (25, 00,000 rs).

Professional Memberships

- Life Member for Indian Roads Congress-e-LM 100515.
- Life Member for Institute of Engineers-M-1736161

Awards & Recognitions

Karnataka State Council for Science and Technology (KSCST), Indian Institute of Science, Bengaluru funded following projects

- Performance studies of Bituminous Concrete Mix using Waste Plastics
- Road Safety Audit-A Case study on state Highway-17(RR Nagar gate-RR Medical College) and Arterial road (Uttarahalli main road).
- Exploring BRTS for Accident Reduction: A Case Study – Banashankari Stage 3 to Stage 6.

Best paper award

- For the paper titled "Laboratory Evaluation of Engineering and Strength Properties for Semi Rigid Mixtures presented at National Virtual Conference 2020 on Sustainable Construction Technologies and Advancements in Civil Engineering.
- For the paper titled "Laboratory studies on mechanical properties of cement mortar grout by using cutback and emulsion" presented at International Conference on Climate Resilient Construction and Building Materials 2023.
- For the paper titled "Laboratory investigations on Semi Rigid Pavement", at VCET, Puttur, and 11th May 2019.

Student Supervision

- **Ph.D. Candidates:** 1 (Pursuing)
- **M.Tech/M.Sc. Students:** 21
- **Undergraduate Research Mentees:** 16

Professional Roles

Editorial Board:

- 4th Conference of Transportation Research Group of India (CTRG) 17-20 December 2017. IIT Mumbai, India
- International Conference on Advances in Materials and Manufacturing Applications, Amrita Vishwa Vidyapeetham, Bengaluru Campus, Karnataka , 29th -31st Aug 2019.
- G20 C20 International Conference on Interdisciplinary Approaches in Civil Engineering for Sustainable Development (IACESD-2023).
- The Open Transportation Journal, Bentham Science Publishers, Netherlands, Europe 2023.
- SSAHE- Journal of Interdisciplinary Research, Gautama Research Centre Sri Siddhartha Institute of Technology, Tumakuru, Karnataka (January 2023)
- American Journal of traffic and Transportation Engineering, Science Publishing Group, New York, NY 10020 U.S.A (18 January 2024).
- 8th IEEE International Conference on Computational Systems & Information Technology for Sustainable Solutions (CSITSS), held from, 7th to 9th November, 2024.
- 1st International Conference on Innovation in Sustainable and Digital Construction Practices (ISDCP 2025) Dayananda Sagar College of Engineering during January 23-25, 2025.

Chair/Committee Member: Session Chair and Co-chair for Geotechnical and Transportation theme of 1st International Conference on Innovation in Sustainable and Digital Construction Practices (ISDCP 2025), organized by the Department of Civil Engineering, Dayananda Sagar College of Engineering during January 23-25, 2025.

Details of Technical Talks Delivered

- Delivered talk on two days training program on Developing Aquaponics System and IoT based Aquonics Farm Mangement (Poly House: Planning and Construction), organized by Centre of Excellence in IoT, RVCE on 27th September 2024.
- Delivered talk on Design and Construction Practices of Rigid Pavement at Department of Civil Engineering, Anjuman-I-Islam's Kalsekar Technical Campus, Mumbai on 14th September 2023.
- Delivered talk on Intelligent Transportation Systems: An Overview at DMRHP Module-3 & 4, Program me held on 8th May to 26th June 2022 through online from NICMAR Pune Campus.
- Delivered talk on Intelligent Transportation Systems: A Case Study at Department of Civil Engineering, Anjuman-I-Islam's Kalsekar Technical Campus, Mumbai on 12th January 2022.
- Delivered talk and demonstrated "Tests on Aggregates & Bitumen" for Engineers of BBMP during two weeks training program on "Design, construction, maintenance and management of urban roads" on 9th Feb 2016.
- Conducted Tutorials on "Intersection Design" for Engineers of BBMP during two weeks training program on "Design, construction, maintenance and management of urban roads" on 12th Feb 2016.
- Conducted field studies on "Road Safety Audit" for Engineers of BBMP during two weeks training program on "Design, construction, maintenance and management of urban roads" on 17th Feb 2016.
- Conducted field studies on "Road safety audit assessment" during three days training program on "Road safety engineering" for Engineers of PWP & IWTD, Govt. of Karnataka on 5 th November 2015.
- Conducted field studies on "Road safety audit" during three days training program on "Road safety engineering" for Engineers of PWP & IWTD, Govt. of Karnataka on 20th August 2015.

- Conducted field studies on “Pavement Condition survey” during three days training program on “Asset Management for Highways” for Engineers of PWP & IWTD, Govt. of Karnataka on 27th September 2018.
- Coordinator for “Technology Barrier Reduction Programme (TBRP)-2019” on 22nd April -10th May 2019 for 10th standard Govt. and Rural students, RV College of Engineering, sponsored by FAER, Zebra technologies, Extreme Networks and DIET, Bengaluru.

Teaching

Core Courses:

- Elements of Civil Engineering
- Engineering Mechanics
- Building Construction and Planning
- Highway Engineering
- Transportation Engineering
- Highway Geometric design
- Urban Transport Planning
- Intelligent Transportation Systems (PG)
- Highway Planning and Economics Analysis (PG)
- Transportation Planning (PG)

Advanced/Lab Courses:

- Building Construction and Planning
- Highway Materials
- Concrete Technology
- Geotechnical Engineering
- Estimation and Costing

Professional Roles

Responsibilities

- **Academic and Administrative**
 - Faculty Counselor for Civil Engineering Department students (2014–Present).
 - Department Coordinator for RVCE autonomous examination section (2015–2021).
 - Committee member- College “Spandana” Magazine (Volume 37).
 - Highway Engineering laboratory in charge(2016–Present)
 - Placement Coordinator for Civil Engineering department(2018–2020)
 - AICTE coordinator(2014–2018)
 - SAP Coordinator(2018–2023)
 - Continuous Internal Evaluation committee member(2022– Present)

- Project committee member (2018–2023)
- Budget committee member(2016–2019, 2022–Present)
- Survey Camp Officer (2022– Present)
- Residential warden in RV Boy’s hostel (2015–2022).
- Coordinated with department for accreditation process of NBA, NAAC, VTU committees.
- Core committee member–National conference on “Leveraging Intelligent transportation system for enabling smart cities”, 2to 4, March 2017.

External Connect

Board of Evaluation member for

- Siddaganga Institute of Technology, Tumkuru
- BMS College of Engineering, Bengaluru
- Dayananda Sagar College of Engineering, Bengaluru
- Dr Ambedkar Institute of Technology, Bengaluru
- University Visvesvaraya College of Engineering, Bengaluru.
- VNR Vignana Jyothi Institute of Engineering and Technology ,Hyderabad

Board of Syllabus member for

- RV College of Engineering, Bengaluru
- Siddaganga Institute of Technology, Tumkuru