


Curriculum Vitae

1. Personal Details

(i)	Name	Dr. Sunil Kumar Ahirwar	
(ii)	Father's Name	Shri G. P. Ahirwar	
(iii)	Address for Communication	Department of Civil Engineering and Applied Mechanics, Shri G. S. Institute of Technology and Science, Indore 23 Sir M. Visvesvaraya Marg, Indore – 452003 (M.P.), India	
(iv)	Permanent Address	288, Sarvasampanna Nagar Kanadiya Road, Indore-452016 (M.P.)	
(v)	Contact Details	M/W No.+918169845602 Phone: +91-731-2582178(Off.) Phone: +91-731-3505539(R) Email: sahirwar@sgsits.ac.in skasgsits@gmail.com	
(vi)	Nationality	Indian	

2. Educational Qualifications

No.	Degree	Year	University/Institute	Division	Specialization
1.	Ph. D.	2022	IIT Bombay, Mumbai (MH)	8.18/10	Civil Engineering
2.	M.Tech.	2006	M. N. N. I. T. Allahabad, Prayagraj (U. P.)	I st	Geotechnical Engineering
3.	B. E.	2004	R.G.P.V. Bhopal / M.I.T.S. Gwalior (MP)	I st	Civil Engineering

M.Tech. Dissertation Title: Sorption & Desorption Studies of Soil Contaminated with Heavy Metals

Ph.D. Thesis Title: Experimental Studies on Geosynthetics Reinforced Soil Foundation

3.	<u>Present Position Held</u>	Assistant Professor (Selection Grade) Department of Civil Engineering and Applied Mechanics Shri G. S. Institute of Technology and Science, Indore
4.	<u>Career History and Profile of Work Experience:</u>	
(a)	Academic / Teaching Experience and subjects taught :	
	(i) Associate Professor, CE-AMD, SGSITS, Indore, 2019-Till Date	
	(ii) Assistant Professor (Selection Grade), CE-AMD, SGSITS, Indore, 2016-2019	
	(iii) Assistant Professor (Senior Scale), CE-AMD, SGSITS, Indore, 2011-2016	
	(iii) Assistant Professor, CE-AMD, SGSITS, Indore, 2010-2011	
	(iv) Lecturer, Civil Engineering & Applied Mechanics, SGSITS, Indore, 2006-2010	

	Subjects Taught
(i)	General Civil Engineering and Applied Mechanics
(ii)	Engineering Geology
(iii)	Geodesy
(iv)	Building Planning and Architecture
(v)	Construction Technology-I
(vi)	Construction Technology-II
(vii)	Geotechnical Engineering-I
(viii)	Geotechnical Engineering-II
(ix)	Transportation Engineering-I
(xi)	Transportation Engineering-II
(xii)	Advanced Geotechnical Engineering
(xiii)	Soil Mechanics in Highway Engineering
(xiv)	Design and Construction of Flexible Pavement
(xv)	Foundation Engineering
(xvi)	Advanced soil Mechanics and Foundation Engineering
(b)	<u>Other Academic Experiences and positions/responsibilities held</u>
(i)	Member of Academic Council 2013-2021
(ii)	Member of Board of Studies (2010-Present)
(iii)	Member of Time Table Committee (2007-2015)
(iv)	Member of the Departmental detention Committee (UG/PG) (2008-2015)
(v)	Member of the Committee for the preparation of E.O.F. to Testing and Consultancy 2008-2022
(vi)	Member of the Committee for the allotment of Testing and Consultancy Jobs (2011-2013)
(vii)	Member of the Committee for conducting various activities related to Accreditation for UG Course July 2014 to June 2015
(viii)	Member of the Departmental Committee for PG admission 2014-Present
(c)	<u>Relevant Administrative Experience</u>
(i)	Departmental Training and Placement Facilitator 2011-15
(ii)	Coordinating officer for conducting activities related to recruitment of Class-III and Class-IV (2013)
(iii)	Member of Scrutiny committee for the recruitment of Assistant Professor on contract basis 2019
(iv)	OSD for Exam Work -Scrutiny Nov-Dec 2019
(v)	OSD for Exam Work -Scrutiny April-May 2022
(d)	<u>Other Academic cum Administrative Experiences and Positions Held</u>
(i)	Member of Committee of Annual Physical (Stock) Verification of the various department
(ii)	Convener for conducting Mid-Term for U/PG 2014- Present
(iii)	Departmental In-charge of CWN May 2020-Present
(iv)	Departmental Library In-charge May 2015-Present
(v)	Coordinator for Spoken Tutorial Activity for UG students May 2020-Present
(vi)	Departmental Coordinator for completing documentation for NBA

(vii)	In-charge of Engineering Geology Laboratory May 2020-Present
(viii)	In-charge of Soil Testing Laboratory March 2021-Present

5. <u>Research Experience</u>	
	<u>Area of Research Interest:</u> Ground Improvement Railway Geotechnology Soil-Structure Interaction Transportation Geotechnics Environmental Geotechnics Sustainable construction materials Geotechnology for Waste Materials Geosynthetics and Reinforced soil Structures

(a)	<u>Post Graduates/Ph. D. Scholar Guidance</u>
(b)	<u>P.G. Dissertation Guidance</u>
(i)	Neeraj Kumrawat (2015). Experimental Study of Black Cotton Soil Stabilized with Calcium Carbide Residue and Bagasse Ash.
(ii)	Raghendra Singh Dhakar (2015). Experimental Study on Stabilization of Black Cotton Soil with Combination of Concrete Waste and Rice Husk Ash.
(iii)	Tushal Baraskar (2015). Experimental Study of Black Cotton Soil Stabilized with Waste Copper Slag.
(iv)	Sudhanshu Pandey (2016). Experimental Study on Shrinkage Pressure of the Black Cotton Soil
(v)	Himanshu Singh (2016). Experimental Study on Embankment Reinforced with Cellular Structure over Black Cotton Soil Foundation.
(vi)	Punit Bhanwar (2016). Experimental Study on Model Geocell Walls Under Strip Loading.
(vii)	Rahul Gupta (2016). Stabilization of Black Cotton Soil with E-Waste and Stone Dust.
(viii)	Aditi Gupta (2021). Comparative Study on Performance of Recycled Concrete Aggregates in Design of Flexible Pavement.
(ix)	Ankit Patidar (2021). Parametric Study of Piled Raft foundation for High Rise Buildings.
(x)	Anupam Verma (2021). Finite Element Analysis of Combined Piled Raft Foundation using PLAXIS 3D.
(xi)	Rishabh Gupta (2021). Numerical Study on Dynamic Analysis of Combined Pile Raft Foundation (CPRF) on Soft Clays.
(xii)	Anurag Singh (2022). Numerical Study on Piled Raft Foundation using MIDAS GTS NX.
(xiii)	Prachi Sontakke (2022). Finite Element Analysis of Flexible Pavement Using Steel Slag as Base course
(xiv)	Sameeksha Panthi (2022). Performance Modelling of Cement Treated Base with reclaimed Asphalt Material Using Artificial Neural Network.
(c)	<u>Patent</u>
	Application Number: 201811032110 Date of Filing: 28/08/2018 Publication Date: 06/03/2020 Title of Invention: Cellular Reinforcement Supported Embankment on Expansive Soil Applicant Name: 1. Kundan Meshram 2. Sunil Kumar Ahirwar

(d)	<u>Technical Papers Publications</u>
(I)	<u>International Refereed Journals</u>
(i)	S. K. Ahirwar and J. N. Mandal (2021); “Experimental Study on Bamboo Grid Reinforced Copper Slag Overlying Soft Subgrade”, Construction and Building Materials (ISSN: 0950-0618, Impact Factor: 6.141/2021, SCIE), Elsevier, U.K., Volume 306, Article No. 124758. https://doi.org/10.1016/j.conbuildmat.2021.124758
(ii)	S. K. Ahirwar and J. N. Mandal (2021); “Behaviour of Bamboo Grid-Reinforced Soil Bed” International Journal of Geotechnical Engineering (ISSN: 1938-6362, SNIP: 1.93/2021, Scopus), Taylor & Francis, UK, Vol. 15, No. 7, pp. 867-876. https://doi.org/10.1080/19386362.2018.1550909
(iii)	Ankita Kumar, S. K. Ahirwar and J. N. Mandal (2020); “Behavior of Box Culvert with Geofoam as Backfill Material in Highway,” Transportation Research Procedia , (ISSN: 2352-1465, SNIP:0.84/2020) Elsevier, UK, Vol. 48, pp. 3642–3647, https://doi.org/10.1016/j.trpro.2020.08.086
(iv)	Pooja Deepak Pawar, Ankita Kumar, S. K. Ahirwar and J. N. Mandal (2017); “Geotextile Tube Assessment Using Hanging Bag Test Results of Dairy Sludge” International Journal of Geosynthetics and Ground Engineering , (ISSN: 2199-9260, SNIP: 1.35/2017, Scopus), Springer, Vol. 3, No. 3, pp. 1-6. https://doi.org/10.1007/s40891-017-0100-z
(v)	S. K. Ahirwar and J. N. Mandal (2017); “Finite Element Analysis of Flexible Pavement with Geogrids” Procedia Engineering , (ISSN: 1877-7058, SNIP: 1.88/2017, Scopus), Elsevier, Vol. 189, pp.411-416. https://doi.org/10.1016/j.proeng.2017.05.065
	<u>ASCE Geotechnical Special Publications</u>
(vi)	Sunil. K. Ahirwar and J. N. Mandal (2019); “Experimental Study of Load and Settlement Behaviour of Bamboo Grid Reinforced Sand.” Geotechnical Special Publication 312, ASCE (Geo-Congress 2019) pp.282-290. doi.org/10.1061/9780784482148.029
	<u>Book Chapters</u>
(i)	Anupam Verma and Sunil K. Ahirwar (2023); "Finite Element Analysis of Piled Raft Foundation Using Plaxis 3D", In Edited Book, <i>Recent Trends in Construction Technology and Management, Lecture Notes in Civil Engineering, Vol. 260, Edited by M. S. Ranadive, Bibhuti Bhusan Das, Yusuf A. Mehta, Rishi Gupta</i> , Published by Springer Singapore, ISBN 978-981-19-2145-2, pp 991-999, https://doi.org/10.1007/978-981-19-2145-2_73
(ii)	Punit Bhanwar, Sunil K. Ahirwar, Trudeep Dave (2022); “Reuse of Waste HDPE bottles Geocells for Roadway Embankment Stabilization”, In Edited Book entitled <i>Advances in Transportation Geotechnics IV, Lecture Notes in Civil Engineering, vol. 164. Edited by Tutumluer, E., Nazarian, S., Al-Qadi, I., Qamhia, I.I.</i> , Published by Springer Singapore, ISBN 978-3-030-77229-1, pp 631-643. https://doi.org/10.1007/978-3-030-77230-7_48
(iii)	Sunil K. Ahirwar, and J. N. Mandal (2022); “Effect of Natural Reinforcement Aperture Shape on Bearing Capacity of Reinforced Soil”, In Edited Book entitled <i>Advances in Transportation Geotechnics IV, Lecture Notes in Civil Engineering, vol. 165. Edited by Tutumluer, E., Nazarian, S., Al-Qadi, I., Qamhia, I.I.</i> , Published by Springer Singapore, ISBN 978-3-030-77233-8, pp 667-676, https://doi.org/10.1007/978-3-030-77234-5_55
(iv)	Aditya Bhoi, Sunil K. Ahirwar, J. N. Mandal (2021); “Behaviour of Geosynthetics Clay Liner under Direct Shear Test”. In Edited Book entitled <i>Proceedings of Indian Geotechnical Conference IGC 2019, Lecture Notes in Civil Engineering, vol. 133. Edited by Patel, S., Solanki, C.H., Reddy, K.R., Shukla, S.K.</i> Published by Springer Singapore, ISBN 978-981-33-6345-8, pp 1-11. https://doi.org/10.1007/978-981-33-6346-5

(v)	S. K. Ahirwar and J. N. Mandal (2020); “Behaviour of Interfaces between bamboo grids and sand.”, Geotechnical Characterization and Modelling, <i>In Edited Book entitled Geotechnical Characterization and Modelling, Lecture Notes in Civil Engineering, vol. 85, Edited by Madhavi Latha G. and Raghuvver Rao P.</i> , Published by Springer Singapore, ISBN 978-981-15-6085-9, pp 413-422, https://doi.org/10.1007/978-981-15-6086-6_34
<u>Technical Papers –International /National Conferences</u>	
(vi)	S. K. Ahirwar and J. N. Mandal (2018); “Direct Shear Behaviour of Copper Slag-Geogrid Interfaces.” 11th International Conference on Geosynthetics, 11th ICG-2018, 16-21st September 2018, Coex, Seoul, Korea.
(vii)	S. K. Ahirwar and J. N. Mandal (2017); “Overview of the application of Geosynthetics in Port” The 11th Meeting of the Port-city Universities League(PUL) Incheon, Korea 18-20 September 2017, PUL, Incheon National University, Songdo Convensia, Incheon http://www.pul.ynu.ac.jp/proceedings/proceedings_2017.pdf
(viii)	S. K. Ahirwar and J. N. Mandal (2016); “A Comparative Study on Limit Equilibrium Method and Finite Element Method of Slope Stability analysis for Highway Embankment.” International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, IGEC 2016, 23-24 September 2016, Mumbai, India.
(b)	<u>Member of Editorial Board :</u>

6. <u>Awards/ Honours / Special Achievements</u>	
(i)	Working as Teaching Assistant for NPTEL Online Certification Course (2017-2022) Geotechnical Engineering Laboratory, Organized by NPTEL, IIT Bombay. Geosynthetics Testing Laboratory, Organized by NPTEL, IIT Bombay.
(ii)	Working as Teaching Assistant for NPTEL Self-Paced Courses (2022).
(iii)	Certification of appreciation from NPTEL IIT Madras for being recognised as NPTEL Discipline Star (Civil Engineering) Jan-December 2020.
(iv)	Certification of appreciation from NPTEL IIT Madras for being recognised as NPTEL ENTHUSIASTS July- December 2021.
(v)	Certification of appreciation from NPTEL IIT Madras for being recognised as NPTEL EVANGELISTS July- December 2022

7. <u>Membership of Professional Societies</u>	
(i)	Life Member of Indian Geotechnical Society (India) LM-2581 (2008)
(ii)	Life Member of The Indian Society for Technical Education (ISTE) LM-94026 (2013)
(iii)	Life Member of Indian Society for Rock Mechanics and Tunnelling Technology (ISRMTT) LM1997 (2013)
(iv)	Life Member of The Institution of Engineers (India) M-148290-9 (2014)
(v)	Life Member of Indian Society of Theoretical and Applied Mechanics (ISTAM)L/829(2014)

(vi)	Member of International Society for Soil Mechanics and Geotechnical Engineering(ISSMGE) IND18LM-2581 (2018-2021)
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8. <u>Testing and Consultancy Projects undertaken</u>	
(i)	Soil Investigation Work of Indore Collector Office Building for Executive Engineer, Indore Development Authority (IDA), Indore, July 2007.
(ii)	Soil Investigation Work of Shopping Complex Building for Chief Executive Officer, Janpad Panchayat, Manasa (M.P.) during March 2008.
(iii)	Soil Investigation Work of Residential cum Commercial Complex for Sumer Builders PVT.LTD, Indore during March 2009.
(iv)	Soil Investigation Work of Laboratory Building UGC-DAE, DAVV Campus for Executive Engineer Central Public Works Department (CPWD) Indore during October 2009
(v)	Soil Investigation Work of School Building for Samaj Pragati Sahyog Bagli Devas during December 2009
(vi)	Soil Investigation Work of Staff Quarters in Campus for Assistant Engineer, All India Radio Indore during October 2010
(vii)	Soil Investigation Work of High Rise Building for General Manager, Bank of Baroda, Bhopal during June 2012
(viii)	Technical Guidance Report Prepared for hill protection work at the site near Vanchoo Point. April 2013
(ix)	Technical Guidance Report Prepared for Technical Guidance for Construction of bungalows at M.P. Police Housing Corporation Indore. November 2013
(x)	Technical Guidance Report Prepared for Soil Testing of Over Head Tank and Water Filter Plant for CEO Pithampur Dhar. December 2013
(xi)	Soil Testing/Consultancy Report of National Automotive Test Tracks, Madhavpur, Sagore-Manpur Road, Dhar for Rites Ltd. Gurgaon, Haryana, December 2013
(xii)	Soil Investigation Report for Proposed Vertical & Lateral of Extension of Plot at Scheme No.54, for the Deputy Chief Engineer, LIC Ltd. Indore November 2013
(xiii)	Soil Investigation Work of New R.T.O. Complex Village Nayata Mandla for the Executive Engineer, Indore Development Authority, Indore, December 2013
(xiv)	Soil Investigation Report for Lecture Hall & Staff Quarters within Institute Campus, for the Professor In-charge, Building construction/Engineering Cell, SGSITS) December 2013
(xv)	Soil Investigation work of Sewage Treatment Plant at Kabitkhedi, Indore for M/S Enviro Control Associates(I) Pvt. Ltd. Surat, Gujarat August 2014
(xvi)	Soil Investigation work of the Construction of Main Pumping Station of 100 MLD Capacity at Nirajanpur, Indore for M/S Enviro Control Associates(I) Pvt .Ltd. Surat, Gujarat September 2014
(xvii)	Soil Investigation work of Existing Overhead Water Tank and Court Building at Mandsaur for Chief Municipal Officer Nagar Palika Parishad Mandsaur (M.P.), August 2020.
(xviii)	Soil Investigation work for Dairy Project at Village Sindokhedi, Astha for Mascot Projects & Consultants, Gwalior (M.P.), December 2019.
(xix)	Soil Investigation work of Existing Overhead Water Tank and Court Building at Mandsaur for Chief Municipal Officer Nagar Palika Parishad Mandsaur (M.P.), August 2020.
(xx)	Soil Suitability Report for lakha banjara lake, Sagar, for M/s. Ashwath Infratech Private Limited, Sagar, (M.P.) February 2021.
(xxi)	
(xxii)	Soil Investigation work for Construction of Hostel Building at MSME, IGTR Indore, Executive Engineer, CPWD, Indore (M.P.), March 2021

(xxiii)	Soil Suitability Report for the berkheda medium irrigation project, manavar, for Executive Engineer, M.P. W.R.D., Division Sanavar Distt. Dhar (M.P.), August 2021.
(xxiv)	Geotechnical Investigation Report for Construction of CBO-2 & CBO-5 & Customer Zone Building at Scheme No.74 'C', Vijay Nagar, Indore, Deputy Chief Engineer, LIC India, Indore (M.P.) January 2022
(xxv)	Soil sample collection and CBR Testing Work with Review of Pavement Design Report for Indore-Gujarat National Highway, Deputy Manager, PIU, NHAI, Indore, April 2022.

9.	<u>List of Conference/Workshops Organized</u>
10.	<u>List of Seminars / Workshops/Summer/Winter Courses Attended</u>
(i)	One Week QIP Course on Pavement Engineering with Geosynthetics, April 23-27, 2007, at IIT Delhi.
(ii)	One Week QIP Course on Recent Trends in Geotechnical Investigations for Urban & Infrastructure Development, March 15-19, 2010 at IIT Bombay.
(iii)	One Week QIP Course on Analysis and Design of Bridges: Existing and New Trends, May 30-June 03, 2011 at IIT Roorkee.
(iv)	One Week QIP Course on Advanced Foundation Engineering, June 20-24, 2011 at IIT Bombay.
(v)	Two Week Staff Development Programme on Advances in Civil Engineering Construction, May 17-31, 2012 at LNCT Bhopal.
(vi)	Two Week ISTE workshop on Computational Fluid Dynamics, June 12-22, 2012 at SGSITS Indore.
(vii)	Two Week ISTE workshop on Introduction to Research Methodologies, June 25- July 4, 2012, at SGSITS Indore.
(viii)	One Week QIP Short Term Course on Advances in Geotechnical and Geoenvironmental Engineering, June 24-28, 2013 at IIT Bombay.
(ix)	One Week (TEQIP-II) Short Term Course on Earthquake Resistant Design of Buildings and Structures, September 19-23, 2013 at SGSITS Indore.
(x)	Two Week, ISTE workshop on Engineering Mechanics, November 26- December 11, 2013, at SGSITS Indore.
(xi)	One Week (TEQIP-II) Short Term Course on Remote Sensing and GIS Applications in Civil Engineering, January 8-12, 2014 at SGSITS Indore.
(xii)	Two Week ISTE workshop on Fluid Mechanics, May 20-30, 2014 at SGSITS Indore
(xiii)	Two Week ISTE Workshop on Environmental Studies, June 02-12, 2015 at SGSITS Indore
(xiv)	One Week GIAN Course on Deep Foundations of Mega Structures during August 28- 01 September 2018
(xv)	12 Weeks FDP-NPTEL Course on Unsaturated Soil Mechanics, July- October 2018
(xvi)	12 Weeks FDP-NPTEL Course on Geosynthetics and Reinforced Soil Structures, an-April 2019
(xvii)	8 Weeks FDP-NPTEL Course on Subsurface Exploration: Importance and Techniques involved, Feb-April 2019
(xviii)	8 Weeks FDP-NPTEL Course on Plastic Waste Management, Feb-April 2019
(xix)	One Week QIP Course on Recent Advances in Pile Foundation Design, Construction and Testing, June 24-28, 2019 at IIT Bombay
(xx)	12 Weeks FDP-NPTEL Course on Project Management for Managers, July- October 2019
(xx)	8 Weeks FDP-NPTEL Course on Earthquake Resistant Design of Foundations, September-November 2020
(xxi)	12 Weeks FDP-NPTEL Course on Integrated Waste Management for a Smart City, September-December 2020
(xxi)	8 Weeks FDP-NPTEL Course on Project Planning & Control, September-November 2020
(xxii)	One Week QIP Course on Sustainable Construction Practices organized by IIT Indore, October 12-18, 2020
(xxiii)	ATAL-AICTE Course on Strategic Civil Infrastructure, organized by NIT Nagpur Nov 23-27, 2020
(xxiv)	ATAL-AICTE Course on Environmental Geotechnology, organized by NIT Surathkal, Jan 04-08, 2021
(xxv)	ATAL-AICTE Course Concrete Technology, organized by IIT Jammu, Feb 01-05, 2021
(xxvi)	12 Weeks FDP-NPTEL Course on Soil Structure Interaction, January-April 2021
(xxvii)	12 Weeks FDP-NPTEL Course on Rock Engineering, January-April 2021
(xxviii)	ATAL-AICTE Course on Recent Advances in Pavement Analysis, Design and Evaluation, organized by IIT Jodhpur, September 20-24, 2021
(xxix)	ATAL-AICTE Course on Contemporary Technologies for Sustainable Road Construction, organized by Siksha 'O' Anusandhan deemed to be University, October 01-05, 2021
(xxx)	ATAL-AICTE Course on Experiential learning in Geotechnical Engineering, organized by NIT Nagpur December 06-12, 2021
(xxxi)	12 Weeks FDP-NPTEL Course on Ground Improvement, July-October 2021
(xxxii)	8 Weeks FDP-NPTEL Course on Expansive Soil, January-March 2022

(xxxiii)	One Week QIP Course on Advances in Transportation Infrastructure Engineering organized by IIT Indore, May 02-07, 2022
11.	<u>Invited Lectures/Talks Delivered</u>
(i)	

12.	<u>Any other relevant information</u>
(i)	<p>Reviewer of Journal:</p> <ol style="list-style-type: none"> 1. International Journal of GEOMATE (ISSN: 2186-2982) (Scopus Indexed) 2. Journal of the Institution of Engineers (India): Series (A) Springer Nature (Scopus Indexed) 3. Construction and Building Materials, Elsevier, (SCIE) 4. Journal of King Saud University Engineering Science, Elsevier, (SCIE) 5. Journal of Natural Fibers, Taylor & Francis, (SCIE)

Sunil Kumar Ahirwar
Associate Professor