## CURRICULAM VITAE



## Dr. RAVI SHANKAR. S

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#### AREAS OF INTEREST

- Condition Assessment and Repair Solutions for Geo-Infrastructures.
- Design of Geostructures in problematic soils
- Ground Improvement techniques.
- > Physical modelling & Computational Geomechanics.
- > Dynamic response of geosynthetic-reinforced soils.
- > Engineering of marginal and industrial waste materials
- Performance-based design, construction and distress mitigation of concrete pavements & precast pavements.

EDUCATIONAL QUALIFICATION	Degree	Year of Passing	Board/ University/ Institution	Subject	Division
	PhD	2023	IIT Madras	Geotechnical Engineering	I <sup>st</sup> Class
	M.E	2014	Anna University	Transportation Engineering	I <sup>st</sup> Class
	B.E	2012	TEC, Anna University.	Civil Engineering	I <sup>st</sup> Class

PROFESSIONAL	
EXPERIENCE	

Position	Position Name Of Organisation		То	Remarks
Sr. Scientist	CSIR-CRRI	2023	Present	R&D in Geotechnical & Concrete Pavements
Scientist 'C'	CSIR-CRRI	2017	2023*	*2021-2023 in study leave
Project Officer	IIT Madras	2015	2017	DST Funded Project
Assistant Professor	SRM University, Chennai	2014	2015	Academics & Research



MEMBERSHIP TO PROFESSIONAL BODIES		Life member of the Indian Road Congress. Life member of the Indian Geotechnical Society. Life Member of Indian Geotechnical Society Delhi Chapter Member of RILEM (International union of laboratories and experts in construction materials, systems and structures)
HONOURS & AWARDS	<b>&gt;</b>	Received <b>Gold Medal</b> (Late R. Thillainayagam Endowment Award) for securing the maximum marks in M.E. Transportation Engineering , Anna University – April 2014. Received <b>Gold Medal</b> , ( Prof.G.M. Andavan Award ) for Best & Innovative project Work in Transportation Engineering – June 2014.

# **PROJECTS HANDLED**

SI.No	Title	Sponsoring Agency		
1.	External Technical/Quality Audit of 16-lane carriageway of UER-II (NH-344 M & NH-344 N) and Dwarka Expressway (NH-248BB) for 8 no.s construction package under NHAI, PIU, Dwaraka, New Delhi	NHAI, New Delhi		
2.	Condition Assessment and suggestions for remedial measures of Major and Minor Bridges of Odisha Road Network using Modern test procedures of bridges.	PWD, Govt. of Odisha		
3.	Failure analysis and design of remediation works for rehabilitation of retaining wall, CRPF Campus, Srinagar.	Central Reserve Police Force, Srinagar		
4.	Cyclic interfacial response of Geosynthetic reinforcements with marginal/industrial waste materials for highway construction.	CSPS RDSF - CSIR		
5.	Investigation of bulged RE wall and suggestion of suitable remedial measures at Mihan Depot, Nagpur. Phase I	Maharastra Metro Rail Corporation Ltd.		
6.	Investigation, Design and Guidelines of Remedial measures of RE walls along six lane carriageway near Rau Circle, Indore, Madhya Pradesh	NHAI, Indore		
7.	Behaviour of red mud waste material under cyclic loading.	CSIR - CRRI		
8.	Mitigation Measures for foreign object debris (FOD) on Rigid Pavement at VSI Airport, Port Blair.	Airport Authority of India (AAI)		
9.	Proof checking of concrete pavement design of 4-lane concrete pavement with paved shoulder configuration for Bilaspur Pathirapali section of NH-111	Adani Transport Limited		
10.	Third-Party quality assurance/check for the construction of the concrete road in the temporary ash stock yard of the ash mound at NTPC, Dadri.	National Thermal Power Corporation (NTPC). Dadri		
11.	Feasibility study of Foundry sand waste material for Road Construction.	The Institute of Indian Foundrymen, Kolkatta.		

		C.D. Dont. National Institute of		
12.	Sustainable Road Pavements in High Altitude Regions	G.B. Palit National Institute of		
	Using Geosynthetics	Sustainable Development (NMHS)		
		Sustainable Development (NMHS)		
13.	Evaluation of IMS K100 as a chemically active admixture	Infra Innovation Marketing		
	for cement concrete mixture	Solutions, New Delhi		
	Investigation of Distress and suggestion for repair and			
14.	rehabilitation of rigid pavement from Kawardha to Singha	PWD, Raipur, Chhattisgarh		
	section of NH-12A in Chhattisgarh.			
	Design of Concrete Mix for M25, M30 and M35 grade for	Delhi Jal Board		
15.	construction of 564 MLD Waste Water Treatment Plant			
	Vetting of Rigid pavement/ Cement concrete road design	Naida Antharita		
16.	for Village Road, Main Roads and Other Roads and	Noida Authority		
	providing specification of cement concrete road, Noida			
17.	Expert advice guidance and assessment of overall quality of	Nagpur Municipal Corporation		
	Cement concrete roads of phase II roads in Nagpur city.			
	Determination of Mix Proportions for Cement Concrete			
10	Mix Design for PQC, DLC, M30 (RCC)and M25(RCC)for			
18.	Resurfacing of Runways and allied works at Airforce	KCC Buildcon Private limited		
	Station Purnea. Using two type of OPC			
10	Optimization of rigid pavement design using micro silica in	Elkem South Asia Pvt Ltd, NAVI		
19.	PQC mixes	Mumbai		

## **PUBLICATIONS & CONFERENCES**

## **International Journals**

- **Ravishankar, S.**, and Banerjee, S (2024). Three-Dimensional Numerical Analysis of Static and Cyclic Pull-out Response of Plate Anchors in Reinforced Soft Clay. International Journal of Geosynthetics and Ground Engineering, 46 (10). <u>https://doi.org/10.1007/s40891-024-00548-0</u>
- **Ravishankar, S.**, Banerjee, S., Sarvesh, and Mukherjee, S. (2022). Static, cyclic and postcyclic pull-out response of horizontal plate anchors in reinforced soft clay. International Journal of Geosynthetics and Ground Engineering , 8(37). <u>https://doi.org/10.1007/s40891-022-00381-3</u>
- Biradar, J., Banerjee, S., Shankar, R., Ghosh, P., Mukherjee, S., and Fatahi,B. (2019). Response of square anchor plates embedded in reinforced soft clay subjected to cyclic loading. Geomechanics and Engineering, 17(2), 165-173. <u>http://doi.org/10.12989/gae.2019.17.2.165</u>

## **Book Chapters**

Ravishankar, S., Banerjee, S., and Sarvesh (2022). Experimental investigation on the effect of soil consistency on pullout behavior of plate anchors in reinforced clay. Soil Behavior and Characterization of Geomaterials (Vol. 296, pp. 247-256). Lecture Notes in Civil Engineering. Springer, Singapore. <u>https://doi.org/10.1007/978-981-19-6513-5\_22</u>

• **Ravishankar, S.**, Banerjee, S., and Biradar, J. (2021). Behavior of anchor plates in reinforced soft clay subjected to cyclic loading. Lecture Notes in Civil Engineering, Springer

#### **Technical Papers**

- Sinha A K, **Shankar S**, Kumar B, and Havanagi V G (2020). Recycling of foundry sand waste material for the construction of concrete road, Indian Highways-Indian Road Congress (ISSN 0376-7256, Vol. No: 48 Issue No.: 08).
- Sinha A K, Vinoth M, Shankar S, and Havanagi V G (2020). Characterization of Foundry Sand Waste Material for Road Construction, New Building Materials & Construction World (NBM&CW), New Delhi. (ISSN 0973-0591, Vol. 25(9), Issue 9, pp 74 85).
- Prasanna K , Anandh K S, Ravishankar S (2017). An experimental study on strengthening of concrete mixed with ground granulated blast furnace slag (GGBS), ARPN Journal of Engineering and Applied Sciences, Asian Research Publishing Network, Islamabad, Pakistan. (ISSN 1819-6608, Vol12 (8), Pg.No: 2439-2444).

## **Papers in International & National Conferences**

- **Ravishankar, S.**, and Banerjee, S. (2022). Influence of geosynthetic reinforcement on pull-out capacity of plate anchors embedded in undrained clay. 2022 GeoAsia7 Conference & IGS First Young Engineers Conference, Taipei, Taiwan, October 2022.
- **Ravishankar, S**., and Banerjee, S (2022). Three-dimensional numerical simulation of multiplate helical anchor in sand. Indian Symposium on Offshore Geotechnics -An International Convention- ISOG- 2022, Chennai, India, December 2022.
- **Ravishankar, S.**, Banerjee, S., and Sarvesh (2021). Experimental investigation on the effect of soil consistency on the pullout behavior of plate anchors in reinforced clay. Indian Geotechnical Conference 2021, Tirchy, India, December 2021.
- **Ravishankar, S.**, Banerjee, S., and Biradar, J. (2021). Behavior of anchor plates in reinforced soft clay subjected to cyclic loading. Eighth Indian Young Geotechnical Engineers Conference 2021, Chennai, India, October 2021.
- Sinha A K, Vinoth M, **Shankar S**, and Havanagi V G (2020). Coimbatore Foundry Sand Waste Material for Road Construction, Conference on Geoenvironment and Sustainability 2020, Indian Institute of Technology, New Delhi.
- **Ravi Shankar S** (2019) Precast concrete pavements -Recent Trends and developments, International Seminar on "Construction and Rehabilitation of Rigid Pavement – Current practice and way forward", Stein Hall, Indian Habitat Centre, New Delhi.
- **Ravishankar S** (2019). Precast concrete pavements a smart solution for Indian roads. Seminar on "Use of Innovative technologies & materials in construction", Vigyan Bhavan, New Delhi.

