

Resume

Name: Dr. Modalavalasa Suresh

Employee ID: A5CIV00T63

Designation: Associate Professor

Department: CIVIL ENGINEERING

Date of Birth: 03-02-1989

Father Name: M. Rajarao

Mother Name: M. Lakshmi

Reservation Category if Any: BC-A

Address: Maruthi Nagar 7th Lane, Narasannapeta, 532421.

Mobile Number: 9032405807

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Date of Joining the Institution: 22-08-2022

Academic Excellence:

QUALIFICATION	BOARD /UNIVERSITY	DIVISION	YEAR
Ph.D. (CE)	IIT Guwahati	-	Nov 2021
M. Tech. (CE)	JNTU Kakinada	FIRST Class with Distinction	May 2016
B.E. (CE)	AU, Vishakhapatnam	FIRST Class	May 2011

Total Years of Experience (Teaching/Industry): 9 Years

Period		Organization/Institution/Industry	Designation
Jan 2026	Till Date	AITAM, Tekkali	Associate Professor
July 2022	Dec 2025	AITAM, Tekkali	Assistant Professor
April 2022	July 2022	IIT Guwahati	Visiting Researcher



Nov 2021	March 2022	IIT Jammu	Research Associate
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Areas of Interest:

1. Hydraulic Engineering,
2. Hydraulic Structures,
3. Computational Fluid Dynamics
4. Fluvial Hydrodynamics,
5. River Ecology and Modelling,
6. Sediment Dynamics,
7. Coastal Engineering
8. Remote Sensing & Geographical Information Systems
9. Python Programming and Machine Learning

Academic Projects Guided:

- i) Masters Projects: 00
- ii) Bachelor Projects: 09

Sponsored Consultancy Projects:

S. No.	Sponsoring Agency	Title of the Project	Grant
1	NHP	Study on River Morphology and Erosion Patterns at the confluence of Sea for Vamsadhara and Nagavali Rivers. Project Team: Subashisa Dutta (PI), Suresh Modalavalasa (Co-PI). Consultant: State Government of Andhra Pradesh in association with World Bank funding- under National Hydrology Project. Project cost: Rs. 36,11,919. (Ongoing)	Rs. 36,11,919.

Honors and awards received:

- **Best Researcher Award**, Presented by the Director of Aditya Institute of Technology and Management, Tekkali for the academic year 2023-24
- **Best Researcher Award**, Presented by the Director of Aditya Institute of Technology and Management, Tekkali for the academic year 2022-23.
- **Best Quiz Competitor Award**, presented by Ultra-Tech Cements Ltd., Chennai, 2011.
- **Best Oral Presentation Award** at GITAM College of Engineering, Visakhapatnam, 2009.
- **Visweswarayya Memorial Merit Award** at Andhra University College of Engineering, Visakhapatnam, 2008.

Memberships of Professional Societies:

- Indian Water Resources Society (IWRS), Life membership ID LM-24-8080
- International Association of Engineers (IAENG), Life membership ID 390566
- American Geophysical Union, Member ID 1284871 (2021)
- European Geosciences Union, Member ID-589453 (2021)
- Asia Oceania Geosciences Society, Membership ID- T03SS0141H (2019)

Administrative Responsibilities:

1. Prof I/C for Departmental Research & Development Since January 2024
2. YUKTI Cell Convener at the Institute level since July 2023
3. SPOC for KAPILA Scheme at the Institute level - Funded for Patents
4. SPOKE Centre in-charge at the Institute level for organizing FDP in collaboration with E&ICT IIT Roorkee
5. Instrumental in the **Process of MOU for Consultancy Works** between Aditya Institute of Technology and Management, Tekkali and R&B Srikakulam.
6. Discharged duties as an IIC department-level Coordinator
7. Criteria coordinator for NAAC and NBA accreditations in monitoring academic and administrative activities.

Details of Publications:

1. **Modalavalasa, S.**, Maurya, O.P., Dutta, S. et al. Coupled effects of vegetated river corridors and bridge piers on flow dynamics: a hybrid modeling approach. *Model. Earth Syst. Environ.* 12, 170 (2026). <https://doi.org/10.1007/s40808-026-02814-8> SCI Q1, IF- 3.6
2. Maurya, O.P., Simon, A., **Modalavalasa, S.**, and Dutta, S., 2026. Comparing hard engineering and nature-based solution for bank protection: physical modelling of spurs and combined rigid-flexible vegetation. *Environmental Fluid Mechanics*, 26(2), p.20. <https://doi.org/10.1007/s10652-026-10079-z>, SCI-Q2, H-Index- 58, IF-2.1.
3. Maurya, O. P., **Modalavalasa, S.**, Nandi, K. K., & Dutta, S. 2026. Secondary current and vorticity regime of sand-mined sinuous channels. *Journal of Ecohydraulics*, 1–15. <https://doi.org/10.1080/24705357.2026.2636282>. SCI-Q2, H-Index- 19, IF- 4.6
4. **Modalavalasa, S.**, Nandi, K.K., Chembolu, V., Dutta, S. and Kulkarni, V., 2025. Experimental Insights into the Hydraulic Behaviour of Sinuous Channel due to Vegetated Floodplain Corridor.

Ecohydrology. Volume 18, Issue 5, July-August 2025. <https://doi.org/10.1002/eco.70084>, Q1, H-Index- 74, I.F. - 2.1.

5. **Modalavalasa, S.**, Chembolu, V., Dutta, S. and Kulkarni, V., 2023. Laboratory investigation on flow structure and turbulent characteristics in low sinuous compound channels with vegetated floodplains. *Journal of Hydrology*, p.129178. <https://doi.org/10.1016/j.jhydrol.2023.129178>, Q1, H-Index- 290, I.F.- 6.3.
6. **Modalavalasa, S.**, Chembolu, V., Dutta, S. and Kulkarni, V., 2022. Combined effect of bridge piers and floodplain vegetation on main channel hydraulics. *Experimental Thermal and Fluid Science*, p.110669. <https://doi.org/10.1016/j.expthermflusci.2022.110669>, Q1, H-Index- 145, I.F- 3.3.
7. Bammidi., R, Kelli., D.P., Dubba., S.K., Dowluru., S, Muddada., V, Adapa., S.K, Turali., N, **Modalavalasa., S.**, Assessment of structural behaviour of sandwich using BCC lattice under transverse loading, *Next Research*, Volume 2, Issue 4, 2025, 101046, ISSN 3050-4759, <https://doi.org/10.1016/j.nexres.2025.101046>. (Published & Soon to be Indexed in Scopus)
8. Maurya, O.P., **Modalavalasa, S.**, Dutta, S. (2025). [Assessing Changes in Downstream Flow Characteristics in Sinuous Channels Due to Sand Mining Pit Positioning on Flood Plains](#). In: Pandey, M., Umamahesh, N.V., Oliveto, G., Ramana, G.V. (eds) Coastal, Harbour and Ocean Engineering. HYDRO 2023. Lecture Notes in Civil Engineering, vol 424. Springer, Singapore. https://doi.org/10.1007/978-981-96-0385-5_13
9. Maurya, O.P., **Modalavalasa, S.** and Dutta, S., 2024, April. [Quantifying Changes in Downstream Flow Characteristics in Sinuous Channels Due to the Series of Floodplain Sand Mining Pits](#). In International Conference on River Corridor Research and Management (pp. 91-103). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-97-1227-4_7.
10. Maurya, O.P., Nandi, K.K., **Modalavalasa, S.** and Dutta, S., 2023. “[Flow Hydrodynamics Influences Due to Flood Plain Sand Mining in a Meandering Channel.](#)” In *Sustainable Environment: Proceedings of NERC 2022* (pp. 245-251). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-19-8464-8_16.
11. Maurya, O.P., Nandi, K.K., **Modalavalasa, S.**, Dutta, S. (2023). [Numerical Investigation of Various Turbulence Models for a Sinuous Channel with Sand Mining Pit](#). In: Dutta, S., Chembolu, V. (eds) Recent Development in River Corridor Management. RCRM 2022. Lecture Notes in Civil Engineering, vol 376. Springer, Singapore. https://doi.org/10.1007/978-981-99-4423-1_7

12. **Modalavalasa, S.**, Chembolu, V., Kulkarni, V., Dutta, S. (2022). “[Numerical and Experimental Investigation of Effect of Green River Corridor on Main Channel Hydraulics](#)”. In: Chembolu, V., Dutta, S. (eds) Recent Trends in River Corridor Management. Lecture Notes in Civil Engineering, pp 165–176, vol 229. Springer, Singapore. https://doi.org/10.1007/978-981-16-9933-7_11
13. Pradhan, C.; **Modalavalasa, S.**; Dutta, S.; Bharti, R. 2020. “[A geomorphic approach to evaluate river recovery potential for regulated river basin](#)”. River Flow 2020: Proceedings of the 10th Conference on Fluvial Hydraulics (Delft, Netherlands, 7-10 July 2020). CRC Press. <https://doi.org/10.1201/b22619> , eBook ISBN 9781003110958.
14. Maurya, O. P.; Nandi, K. K.; **Modalavalasa, S.**; and Dutta, S., "Effect of Sinuosity Variation on Flow Characteristics of Sand Mined Sinuous Channel Using Numerical Modeling" (2022). International Symposium on Hydraulic Structures. 32. <https://doi.org/10.26077/4735-1995>

International Conferences:

1. Maurya, O.P., **Modalavalasa, S.**, Das, S., Barman, P., Das, A., Nandi, K.K. and Dutta, S., 2024. [Exploring the Mechanisms and Vegetative Influence on River Bank Migration in Sinuous Channels](#) (No. EGU24-2769). Copernicus Meetings. <https://doi.org/10.5194/egusphere-egu24-2769>
2. Maurya, O.P., **Modalavalasa, S.** and Dutta, S., [Assessing Changes in Downstream Flow Characteristics in Sinuous Channels Due to Sand Mining Pit Positioning on Flood Plains](#). HYDRO International 2023.
3. Maurya, O.P., **Modalavalasa, S.** and Dutta, S., [Understanding Anthropogenic Impacts on Vamsadhara River Morphology near the Bay of Bengal Confluence, India: A Satellite Imagery and Field-Based Analysis](#). In *2024 Ocean Sciences Meeting*. AGU.
4. Maurya, O.P., **Modalavalasa, S.**, Nandi, K.K., Pradhan, C. and Dutta, S., 2023. [Quantifying the Influence of Floodplain Vegetation and Sand Mining Pit on the Hydrodynamics of Low Sinuous Channels: An Integrated Experimental and Numerical Approach](#). AGU23.
5. **Modalavalasa, S.**; Anjaneyulu, A.; Chembolu, V.; Kulkarni, V.; and Dutta, S. 2021 December. [A study on flow characteristics with the interactions of green river corridor through experimental and numerical investigation](#). AGU fall meeting, New Orleans, LA & online. 13-17 December 2021. <https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/942890>
6. **Modalavalasa, S.**, Chembolu, V., Nandi, K.K., Kulkarni, V. and Dutta, S., 2021, April. “[Effect of bridge pier induced turbulence on vegetated meander river morphology](#)”. In EGU General

Assembly 2021. vEGU21, Vienna, Austria & Online (19-30 April 2021). Conference Abstracts (pp. EGU21-1465). <https://doi:10.5194/egusphere-egu21-1465>

7. **Modalavalasa, S;** Pradhan, C; Kulkarni, V; Dutta, S. 2019. “Flow Structure in Meandering Channel with Vegetation”. Conference Paper: 16th Annual Meeting, AOGS 2019, Singapore.
8. Siddharth, Amit; Pradhan, C; **Modalavalasa, S;** Dutta, S. 2019. “Effect of In-stream Variable on the Lower Mahanadi River, India”. Conference Paper: 16th Annual Meeting, AOGS 2019, Singapore.

National Conferences:

1. **Modalavalasa, S.;** Pradhan, C.; Siddharth, A.; Dutta, S. 2019. “National Symposium on Innovations in geospatial technology for sustainable development with special emphasis on NER”. ISG-ISRS, 2019, Shillong, India.
2. Maurya, O.P., **Modalavalasa, S.** and Dutta, S., [Assessing Anthropogenic Influences on the Vamsadhara River's Morphology near the Bay of Bengal Confluence: A Combined Satellite Imagery and Field-Based Investigation](#). ISG-ISRS National Symposium 2023.

Details of Research IDs:

Vidwan-ID: 323457

Scopus-ID: 57300943800

ORCID: 0000-0003-2884-1656

Web of Science ResearcherID: HHO-9815-2022

Details of FDPs/Conferences/ Workshops/Refresher Courses Organized:

S. No	Dates	Name of the Programme	Sponsoring Agency
1	19 th – 20 th Dec 2025	Two-day Workshop on “Machine Learning for Civil Engineering”	AITAM, Tekkali
2	17 th – 21 st March 2025	A national level one-week online Faculty Development Program (FDP) on “Python for Engineering Applications” In Collaboration with NITTTR Chandigarh and E&ICT Academy, IIT Roorkee	E&ICT IIT Roorkee, NITTTR
3	8 th Nov, 2022	“How to Plan for Startup and Legal & Ethical Steps”	AITAM, Tekkali
4	21 st Feb, 2022	Demo Day/Exhibition/Poster Presentation of Ideas/PoC & linkage with Innovation Ambassadors/Experts for Mentorship Support	AITAM, Tekkali

	26 th April 2023	A seminar on Prototype/ Process design and Development	AITAM, Tekkali
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Details of FDPs/Conferences / Workshops/Refresher Courses

Attended:

S. No.	Dates	Name of the Programme	Host Institution
1	23/02/2026 to 27/02/2026	One week FDP on “Innovative techniques of Soil testing”	NITTTR & AITAM (Remote Centre)
2	17/11/2025 to 21/11/2025	One week FDP on “Structural Design with STAAD PRO”	NITTTR & AITAM (Remote Centre)
3	19/01/2026 to 23/06/2026	One week FDP on “Generative AI & Large Language Models for Teaching, Research and Industry”	CSM Dept., AITAM
4	15/12/2025 to 20/12/2025	AI and IoT for Next Generation Smart Healthcare Systems (AINGS-2025)	ECE Dept., AITAM
5	05/01/2026 to 09/01/2026	AI tools for teaching and Learning	CSD Dept., AITAM
6	24/11/2025 to 29/11/2025	Recent Advances in Quantum Technology and its Applications	Atal Bihari Vajpayee Indian Institute of Information Technology and Management Gwalior (ATAL)
7	July to October 2025	FDP on “OBE and Accreditation” conducted by IISc, Bangalore	NPTEL, IISc, Bangalore
8	11/01/2025	One day workshop on “Forecasting using Machine Learning Tools”	NPTEL, IIT Madras
9	27/06/2024 to 29/06/2024	International Workshop on “Dam Safety 2024”	IIT Guwahati
10	09/12/2024 to 13/12/2024	One week FDP on “Applications of VR/AR in Manufacturing”	NITTTR & AITAM (Remote Centre)
11	25/11/2024 to 29/11/2024	One week FDP on “Managing Infrastructure in Urban Areas”	NITTTR & AITAM (Remote Centre)

12	29/05/2023 to 02/06/2023	One week FDP on “Inculcating Universal Human “Values in Technical Education	All India Council for Technical Education (AICTE)
13	11/03/2024 to 15/03/2024	One week FDP on “Digital Tools for Teaching and Learning”	NITTTR & AITAM (Remote Centre)
14	19/02/2024 to 23/02/2024	One week FDP on “Machine Learning using Python”	NITTTR & AITAM (Remote Centre)
15	11/03/2024 to 16/03/2024	One week FDP on “Sustainable and Resilient Civil Engineering Practices”	AITAM (Offline)
16	23/05/2024 to 28/05/2024	One week FDP on Geospatial Technology “Empowering Educators: To promote Innovation and Skillset”	Sri Vishnu Engineering College for Women
17	Jan- Feb 2023 (4 weeks)	A NAPTEL FDP on “Python for Data Science”	NPTEL, IIT Madras
18	25/09/2020 to 26/09/2020	FLOW3D, 2-day Water and Environment workshop, by Flow3D team, Pune India	Flow3D team, Pune India
19	4/11/2019 to 8/11/2019	ANSYS Fluent 2019, 2-day workshop by Dept., of Mechanical Engineering.	IIT Guwahati
20	13/08/2018 to 18/08/2018	Flood Risk and River Basin Management, 2018 by Dept. of Civil Engineering, Indian Institute of Technology Guwahati	IIT Guwahati

Expert Talks:

S. No.	Dates	Name of the Programme	Host Institution
1	27 th to 29 th April, 2026	Training programme for officers/engineers of the Water Resources Department, Andhra Pradesh, on river rejuvenation in deltaic regions at Srikakulam, Andhra Pradesh	O/o Superintendent Engineer, Hydrology, Water Resources Department, BRR Drawing Branch, Srikakulam
2	18 th - 20 th February 2026	Training program on Physical Modelling of study reach of Vamsadhara river on 18th - 20th February 2026 at the O/o Chief engineer, Hydrology, Water	O/o Chief engineer, Hydrology, Water Resources Department, Vijayawada.

		Resources Department, Vijayawada.	
3	13 th December 2022	Brainstorming Session on “Cumulative Impact Assessment for Cascading Interventions in Himalayan Rivers (CI ² HR)” on 13th December 2022 at IIT Guwahati, funded by National Mission on Himalayan Studies (CE/P/SD/12).	IIT Guwahati
4	18 th - 19 th November 2022	Training program on bank erosion and protection at the O/o Chief engineer, Hydrology, Water Resources Department, Vijayawada.	O/o Chief engineer, Hydrology, Water Resources Department, Vijayawada.
	13–14 th October 2022	FLOW-3D India Users conference 2022, Presented a paper titled (“Numerical assessment of 3D flow parameters of a sinuous compound channel with sand mining pit and bridge pier using various turbulence models”)	Flow Science India, Taj MG Road Bangalore.

Certifications:

1. Got certified from NPTEL online certification course (4 Weeks) on “**Introduction to Quantum Computing: Quantum Algorithms and Qiskit**” conducted by IIT, Madras & APSCHE, Jan-Feb 2026 with 53% score.
2. Got certified from NPTEL online certification course (12 Weeks) on “**Outcome Based Education and Accreditation**” conducted by IISc, Bangalore Jul-October 2025 with 82% score, Elite silver certificate.
3. Got certified from NPTEL online certification course (12 Weeks) on “**Groundwater Hydrology and Management**” conducted by IIT, Madras Jan-April 2025.
4. Got certified from NPTEL online certification course (4 Weeks) on “**Python for Data Science**” conducted by IIT, Madras Feb-Mar 2023.
5. Attended and Secured FDP certificate From AICTE on Faculty development programme on “**Universal Human Values**” from 29th May to 2nd June 2023, to transfer the knowledge and ethical values to the younger generation.
6. Secured “A”, “B” & “C” category certificates from National Cadet Corps (NCC) under 13(A) AIRFORCE WING and 2nd ANDHRA ARMY REGIMENT.

Other Achievements:

1. **Reviewer** for the journal article "**Experimental Thermal Fluid Science**"
2. **Reviewer for the journal article "Resources Policy"**
3. **Reviewer** for the journal article "**Water Resources and Management**"
4. **Reviewer** for the journal article "**Environmental Modelling and Software**"
5. **Technical review committee member and Chair for a session** in the international conference on Recent Trends in River Corridor Management 2024, 4th edition jointly organized by Indian Institute of Technology Guwahati and Indian Institute of Technology Jammu.
6. **Technical Committee coordinator** for 2nd International Conference on River Corridor Research and Management (RCRM) 30th May to 1st June 2022, organized by Indian Institute of Technology Guwahati in association with Indian Institute of Technology Jammu.
7. Ratified as an Assistant Professor in May 2023 of JNTU(V) selections.
8. Question Paper Setter for various Autonomous colleges.
9. Criteria coordinator for NAAC and NBA accreditations, monitoring academic and administrative activities.
10. Associated in organizing the Seminars and National & International conferences.

I do hereby declare that the information and facts stated above are true and complete to the best of my knowledge.

Date: 21/08/2026



Signature