

Curriculum Vitae

COURSE	INSTITUTION/ UNIVERSITY	PLACE	YEAR
Ph.D. (Marine Structures & Coastal Engineering)	NITK Surathkal Karnataka	National Institute of Technology, Surathkal, Karnataka	2013-18
M.Tech (Offshore Structural Engineering)	NITC, Calicut Kerala	National Institute of Technology, Calicut, Kerala	2006-08
B.Tech (Civil Engineering)	S V University, Tirupati	K S R M College of Engineering, Kadapa	2003-06
Diploma (Civil Engineering)	State Board of Technical Education and Training, A.P.	Govt. Polytechnic College for Men, Madanapalli, Chittoor	1999-02
S.S.C	Z P High School	Kurabalakota, Chittoor	1997-98

*CGPA in Ph.D. Course work

ACADEMIC PROJECTS

Classification of Indian coastal tidal inlets and some aspects of morphology changes under cyclone event (Ph.D.)

Duration 2013-2018

About Project Coastal inlets are the openings along the coastline that provide a link between the open ocean and the hinterland water bodies. These coastal inlets are varied in nature depending on many an influencing parameter especially waves and tides. The closure of tidal inlets could lead to flooding of the upstream regions, in case of excess drainage from the water shed region. The closure of inlets would also mean less discharge of sediments into the coastal region, which may significantly influence the coastal sediment transport. On the other hand, excessive alongshore sediment transport could result in sediment deposition at the inlet mouths and lead to inlet closure. The coastal wave climate has significant influence on both the coastal sediment transport as well as the breaching of the closed tidal inlets. These interlinked governing phenomena are still being studied as the underlying physical processes are highly variable from site to site and from time to time. Also the mechanism for the formation of flood or ebb tidal deltas is still not clear. Moreover, the passing/crossing of storms/cyclones in the vicinity of tidal inlets pose very different problems both in terms of increased river discharge due to storm associated rainfall and increased wave activity and storm surges. The morphological changes of the tidal inlets associated with the storm activity is a challenging research area which many a models have not yet fully mimicked all the processes. Therefore, in order to tackle few of the above mentioned research gaps, it is proposed to carry out a study to understand the dynamics of tidal inlets at specific locations on the east and west coast of India through numerical modelling augmented with available measured data.

Tsunami influence on Local Hydrodynamics and its influence on Design of Offshore Structures (M.Tech)

Duration	2006-2008
About Project	Generally offshore structures are designed for varied environmental conditions without considering the tsunami effect. Results of 2004 Indian Ocean tsunami showed that severe currents were generated during the propagation of tsunami. In this accepts attempt was made to study the tsunamigenic current and its effect on the design of Submarine pipelines.

Strength Properties of Sustainable Concrete (B.Tech)

Client	Contractor, Kadapa
Duration	6 months
About Project	In the present study, an attempt is made to produce sustainable concrete with less amount of cement and other industrial wastes like flyash, lime, gypsum and barites. The production of sustainable concrete, in the present study doesn't require any fuel or electrical energy.

Design & Estimation of Approach Road (Diploma)

Duration	6 months
About Project	Proposed work is located about 10km from Madanapalli. The distance of institution from main road is 220m & there is no approach road to the institution. Hence for approach, a double lane bitumen road is provided with carriageway of 7m & shoulder of 1m.

CARRER RECORD

- ✦ Worked as a Site engineer at Tirupati, 2002-03.
- ✦ Post graduate technical trainee in Pipeline Department (L&T Valdel Engineering Ltd. Bangalore), 2008-09.
- ✦ Worked as Assistant Professor (Department of Civil Engineering) at K.S.R.M. College of Engineering, Kadapa, 2009-16.
- ✦ Worked as Sr.Assistant Professor (Department of Civil Engineering) at Madanapalle Institute of Technology & Science, Madanapalle, 2016 to 2020
- ✦ Worked as Associate Professor (Department of Civil Engineering) at Madanapalle Institute of Technology & Science, Madanapalle, 5th July 2016 to – 28th February 2021
- ✦ Worked as Associate Professor (Department of Civil Engineering) at KSRM College of Engineering, Kadapa, 1st March 2021 to – 18th March 2021

- ✦ Working as Head of the Civil Engineering Department at KSRRM College of Engineering, Kadapa, 19th March 2021 to – Till Date

JOURNAL/CONFERENCE PUBLICATIONS (National/International)

- ✦ **N. Amaranatha Reddy**, Jaya Kumar Seelam, Subba Rao & M.K.Nagaraj “Flood estimation at ungauged catchments of Karnataka, West coast of India”, ISH Journal of Hydraulics Engineering, 2019, Vol. 25 (3), 325-335.
<https://doi.org/10.1080/09715010.2018.1426055>
- ✦ Jaya Kumar Seelam, Amarnatha Reddy N, and Jyoti P Kerkar “Cyclone induced berm breaching in the Bay of Bengal under climate change conditions - A case study off Konark coast during Cyclone Phailin” 15th Annual meeting AOGS, 03-08 June 2018, Honolulu, Hawaii
- ✦ **N. Amaranatha Reddy**, Vikas Mendi, Jaya Kumar Seelam and Subba Rao “Nondimensional Methods to Classify the Tidal Inlets Along the Karnataka Coastline, West Coast of India”
https://doi.org/10.1007/978-981-13-3134-3_13
- ✦ Vikas Mendi, **N. Amaranatha Reddy**, Jaya Kumar Seelam and Subba Rao “Tidal Energy Estimation of Potential Tidal Inlets Along the East Coast of India”
https://doi.org/10.1007/978-981-13-3134-3_49
- ✦ Vikas Mendi, **N. Amarnatha Reddy**, M. Lokeshwari, T. Raghavendra and Jaya Kumar Seelam "What Is the Tidal Energy Potential of Sri Lanka?"
<https://ascelibrary.org/doi/10.1061/9780784482025.037>
- ✦ **N. Amarnatha Reddy**, Vikas Mendi, T. Raghavendra and M. Lokeshwari "Flood Estimation Using Probability Distribution Function Based Synthetic Unit Hydrograph Methods at Ungauged Catchments in Varrar Basin, Kerala, India"
<https://ascelibrary.org/doi/10.1061/9780784482025.016>
- ✦ M. Lokeshwari, Vikas Mendi, T. Raghavendra, **N. Amaranatha Reddy** and B. C. Udayashankar, "Co-Composting of Municipal Solid Waste with Sewage Sludge for Sustainable Waste Management in Urban Areas"
<https://ascelibrary.org/doi/10.1061/9780784482025.009>
- ✦ T. Raghavendra , B. C. Udayashankar , M. Lokeshwari, M. Vikas and **N. Amaranath Reddy** "Effect of Water Content on Relative Flow Area and Hence Predicted Flow Values of Controlled Low Strength Materials"
<https://ascelibrary.org/doi/10.1061/9780784482032.020>

- ✦ M. Lokeshwari, Vikas Mendi and **N Amarnatha Reddy** “Peak flood estimation along southern coast: Kerala, India”
https://doi.org/10.1142/9789813233812_0017
- ✦ **Amarnatha Reddy N**, Jaya Kumar Seelam, Subba Rao, Nagaraj M.K. 2016, “Application of synthetic unit hydrograph to determine flood discharge along the tidal inlets of Karnataka coastline”, 10th International Symposium on Lowland Technology, Mangalore, Karnataka, India.
- ✦ M. Vikas , **N. Amaranatha Reddy**, Subba Rao , Jaya Kumar Seelam “Classification of tidal inlets along the central west coast of India”, Proedia Engineering, 116 (2015), 912-921
[doi: 10.1016/j.proeng.2015.08.381](https://doi.org/10.1016/j.proeng.2015.08.381)
- ✦ **N. Amaranatha Reddy**, M. Vikas, Subba Rao, Jaya Kumar Seelam “Classification of tidal inlets along the central east coast of India”, Proedia Engineering, 116 (2015), 922-931
[doi: 10.1016/j.proeng.2015.08.382](https://doi.org/10.1016/j.proeng.2015.08.382)
- ✦ Vikas, M., Thripathi, **Amanatha Reddy, N.**, 2015, “Study on use of Polyester Resin as course aggregate in concrete”, International Journal of Earth Sciences and Engineering ISSN 0974-5904, Vol 08, No.02, April, 2015, PP138-142.
- ✦ Vikas M, **Amarnatha Reddy N**, Subba Rao, Jaya Kumar Seelam, 2015, “A study on the classification of select tidal inlets along the east coast of India”, 20th International Conference on Hydraulics, Water Resources and River Engineering, Indian Institute of Technology Roorkee (IITR), India.
- ✦ Jaya Kumar Seelam, Vikas M, **Amarnatha Reddy N**, Subba Rao, 2015, “Classification of tidal inlets along the Indian coast”, International Indian Ocean Expedition (IIOE) at National Institute of Oceanography, Goa, India.
- ✦ **N. Amaranatha Reddy**, Vikas M, Jaya Kumar Seelam, Subba Rao, 2015 “ A Study on seasonal morphological changes and classification of tidal inlets along Gujarat and Kerala Coast”, 4th national Conference of Ocean Society of India (OSICON-15), CSIR – National Institute of Oceanography, Goa, India.
- ✦ Jaya Kumar Seelam, **N. Amaranatha Reddy**, M.V. Ramana Murthy, R. Mani Murali, A. Arun Kumar, SubbaRao, 2014 “ Seasonal Dynamics of a Tidal coastal inlet on East coast of India – Measurements and Modelling”, 19th IAHR-APD Congress, WRU, Hanoi, Vietnam.

- ✦ **Amaranatha Reddy, N.**, Jaya Kumar, S., Santosh G Thampi, 2009 “Numerical modeling of Tsunamigenic currents and its influence on the submarine pipe design at selected locations on the Indian coast”, International Conference on Ocean Engineering (ICOE2009), IITM Madras, India 1st - 5th February 2009, pp. 91-92

INTERNSHIP/PROJECT

- ✦ Internship Project, titled as “Tsunami Propagation in Arabian sea”, National Institute of Oceanography, Goa, India, June 2007, under the guidance of Dr. S. Jaya Kumar, Principal Scientist, NIO, Goa.
- ✦ M. Tech project, titled as “Tsunami effects on local Hydrodynamics and its influence on Design of Offshore Structures” in National Institute of Oceanography, Goa, under the guidance of Dr S. Jaya Kumar, Principal Scientist, NIO, Goa.

CONFERENCES/WORKSHOPS

- ✦ Workshop on “**Deep water offshore structures (DOS Workshop)**” 6th -7th February 2009, Organized by Indian Institute of Technology Madras, Chennai
- ✦ Workshop On “**Teaching Methodologies in Engineering Education**” 27th March 2010, organized by KLM College of Engineering, Kadapa.
- ✦ Workshop on “**Geoinformatics for water and coastal engineering**”, 23rd - 24th September 2013, Department of Applied Mechanics and Hydraulics, National Institute of Technology Karnataka, Surathkal, Karnataka.
- ✦ Workshop on “**Climate Change and Coastal Process**”, 4th February 2014, Organized by Ocean Engineering Division, CSIR-National Institute of Oceanography, Dona Paula, Goa, India.
- ✦ Fifth Indian National Conference on Harbour and Ocean Engineering (**INCHOE-2014**), 5-7 February 2014, organized by Ocean Engineering Division, CSIR-National Institute of Oceanography, Goa, India.
- ✦ Workshop on “**Basics and complexities of computational modelling pertaining to ocean and coastal hydrodynamics**”, 22th August 2014, Organized by Ocean Engineering Division, CSIR-National Institute of Oceanography, Dona Paula, Goa, India.
- ✦ Indo-Japan workshop on “**River mouths, Tidal flats and Lagoons**” 15-16 September, 2014, organized by Department of Ocean Engineering, IIT Madras, India and Department of Civil Engineering, Tohoku University, Japan.
- ✦ One day Pre-Conference Workshop on “**Past, Present and Future Scenarios in Water Resources, Coastal and Ocean Engineering**”, 11th March 2015, Organized by Department of Applied Mechanics and Hydraulics, National Institute of technology Karnataka, Surathkal, Mangaluru.
- ✦ International Conference on “**Water Resources, Coastal and Ocean Engineering (ICWRCOE’15)**”, 12th -14th March 2015, Organized by

Department of Applied Mechanics and Hydraulics, National Institute of technology Karnataka, Surathkal, Mangaluru.

- ✦ National conference on “**High way Construction technology**”, 14th-15th July 2016, organized by Confederation of Indian Industry (CII), Hyderabad International Convention Centre (HICC), Hyderabad, Telangana.
- ✦ A two-day workshop on “**Outcome Based Learning**”, 26th-27th August 2016, organised for MITS faculty at Birla Institute of Technology & Science, Pilani, Hyderabad Campus.
- ✦ A two-week faculty program on “Seismic and wind loads on buildings and applications of ETABS and ANSYS FLUENT” 14th -26th December 2020, organized by Chaitanya Bharathi Institute of Technology, Gandipet, Hyderabad.

PROFESIONAL ACTIVITIES

- ✦ Organizing Secretary, National Technical Symposium **Konvergenz’12**, January 9th-10th 2012, KSRM College of Engineering, Kadapa, Andhra Pradesh.
- ✦ Organizing Coordinator, **Animation Workshop**, January 11th -12th January 2012, KSRM College of Engineering, Kadapa, Andhra Pradesh.
- ✦ Organizing Coordinator, **Concrete Mix Design Workshop**, January 23rd January 2013, KSRM College of Engineering, Kadapa, Andhra Pradesh.
- ✦ Organizing Secretary, National Technical Symposium **Konvergenz’13**, January 23rd-25th 2013, KSRM College of Engineering, Kadapa, Andhra Pradesh.
- ✦ Organizing Coordinator, **Animation Workshop**, January 25th-26th January 2013, KSRM College of Engineering, Kadapa, Andhra Pradesh.
- ✦ Organizing Secretary, **Civil Engineering Association**, KSRM College of Engineering, Kadapa, Andhra Pradesh, India, 2010 to till date.
- ✦ Conducted special courses like **STAAD Pro, Auto CAAD, Microsoft Excel and Visual Basic for Applications** for Couple of batches (2011 & 2012).
- ✦ Actively Participated in NBA accreditation work and also developed a website “infocivileducation.tk” for the benefit of students.
- ✦ Bachelor’s Degree (B.Tech) Dissertation Guided : 07
- ✦ Bachelor’s Degree (B.Tech) Mini Projects Guided: 20
- ✦ Ph.D. course work (12 Credits) completed with CGPA 8.47/10 in 2013.
- ✦ Ph.D. research proposal submitted and accepted on 24-6-2014 at NITK, Surathkal, Karnatka.
- ✦ Nominated staff advisor for “sports and games” from 2010 to 2016 at KSRMCE, Kadapa.
- ✦ Faculty in-charge, Alumni Association, for making Photo Albums/creating database of outgoing students.
- ✦ Best teacher award for outstanding performance for the academic year 2012-2013.

- ✦ Ph.D. research first progress is presented and accepted on 09-02-2015 at NITK, Surathkal, Karnataka.
- ✦ Organizing Committee member, International Conference on “Water Resources, Coastal and Ocean Engineering (ICWRCOE’15)”, 12th -14th March 2015, Organized by Department of Applied Mechanics and Hydraulics, National Institute of technology Karnataka, Surathkal, Mangaluru.
- ✦ Organizing Committee member for Alumni Meet conducted in KSRM college of Engineering, Kadapa, 24th Jan 2015.
- ✦ Conducted special courses like “HTML, CSS, C#, Java” for one of batch to develop civil engineering related applications (2015).
- ✦ Nominated faculty member from Civil engineering department for “Innovation centre” at KSRM College of Engineering.
- ✦ Conducted a workshop on “Google Sketchup Software” for II and III year Civil Engineering students at KSRM College of Engineering, 3rd-5th, April, 2016.
- ✦ Nominated faculty member from Civil Engineering department for NACC, NIRF at Madanapalle Institute of Technology & Science, Madanapalle
- ✦ Visited Ready mix plant, Tar plant at Piler & Bahuda dam at Nimmana Palle on 9th Sep 2017.
- ✦ Visited ET ACETECH-2017 held at Bangalore International Exhibition center, Tumkur road, Bangalore, Karnataka on 8th Oct 2017

CONSULTANCY WORKS

- ✦ Appointed as Consultancy Head, Madanapalle Institute of Technology and science June 2018 – February 2021
- ✦ Initiated consultancy works in the Civil Engineering Department, Madanapalle Institute of Technology and Science

Only the departmental testing and consultancy works have been undertaken such as

- ✦ DPR for Architectural & Structural Design have been given to Daily vegetable and Fruit Market, Madanapalle Municipality (Estimated Cost: 16 Crores)
- ✦ Strength of materials lab (tension test, bending & re-bending test, compressive strength of Cement Concrete cubes)
- ✦ Concrete Technology lab (Concrete Mix Design, Fineness of cement, Specific gravity of cement)
- ✦ Transportation lab (Flakey and Elongation Index, Fineness modulus of coarse and fine aggregates).

SCHOLARSHIPS AND AWARDS

- ✦ 22nd rank in ECET (Engineering Common Entrance Test), 2003
- ✦ GATE scholarship for M.Tech at NIT Calicut, 2006-08.
- ✦ Naval Research Board Sponsorship for Deepwater Offshore Structures Workshop at IITM, Chennai.

COURSES TAUGHT

- ✦ Engineering Mechanics
- ✦ Strength of materials
- ✦ Structural Analysis
- ✦ Steel Structural Design
- ✦ RCC Structural Design
- ✦ Advanced Structural Engineering
- ✦ Construction Technology and Project Management
- ✦ Computer Aided Design Laboratory
- ✦ Strength of Materials Lab
- ✦ Concrete Technology Lab
- ✦ Design of Shallow foundation & Earth retaining Structures (M.Tech.)
- ✦ Advanced Structural Analysis (M.Tech.)
- ✦ Advanced Concrete Design (M.Tech.)