

# **Faculty**

Dr. Nagaraj Sitaram

Professor & Head, Dept of Civil Engineering East Point College of Engineering & Technology

#### Profile\*



Dr Nagaraj Sitaram has obtained Bachelor's Degree in Civil Engineering from Bhopal University in 1986, Master's degree from NIE Mysore in Hydraulics(1989) and completed doctorate from Indian Institute of Science Bangalore in 1997. He has total 31-yrs of experience out of which 14-yrs in Government sectors and 17-yrs in teaching. He worked as Research Engineer at Fluid Control Research Institute Palakkad, National Transportation Planning and Research Centre Thiruvananthapuram and MACT Bhopal (Now MANIT). He has published 2 Book chapters, 22 Journal papers and 70 conference papers. Research Interests include Computational Fluid Dynamics (CFD), River and Canal flow measurements, Hydro Turbine Testing, Backwater Hydrographic Survey, Green Building and Green Material Initiatives including Nano materials, Water saving devices.

#### **Publications**

#### **Books**

#### **Journals**

- 1. "Performance Characteristics and Economical Evaluation of Various Types of Nanomaterial Concrete", Feb 2023 Springer Nature Singapore Pte Ltd.Book Title Fiber Reinforced Polymeric Materials and Sustainable StructuresPP243-256, B511551,ISBN 9780203892343 Composites Science and Technology book series (CST)9780203892343.
- 2. "Comparison of Pressure Drop Characteristics of Multistage Orifice Plate and Normal Orifice Plate in Pipe Flow", Hydro 2022 at Punjab engineering college, Chandigarh December 2022
- 3. "Comparison of Fire Risk Evaluation in a Ground Floor of a Modern House with Conventional House", International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 09 Issue: 07 | July 2022 www.irjet.net p-ISSN: 2395-0072, pp2676-81,Impact F = 7.529
- 4. "Performance of nano materials for the strength development in concrete cube used as Partial replacement for cement at different temperatures", Materials Today: Proceedings, ELSEVIER Publication
- , 2021, Pages 7253-7Volume 45, Part 7258 IMPACT FACTOR 24.2
- 5. "Performance Evaluation of Different types of Nano Concrete for sustainable construction", Journal of Xidian University,
- ISSN No: 1001-2400. Volume 15, Issue 6, SCOPUS 2021 PP63-70, IMPACT FACTOR 5.4
- 6. "Innovative Teaching Learning Methods in Technical Courses During COVID Lockdown", Book Chapter at IOR international Press publication. ISBN E-BOOK 978-93-89631-67-8,2021
- 7. "Construction of Low Cost Less Time (LCLT) Houses by using Wood", International Journal of Scientific Research in Civil Engineering" IJSRCE Volume 7 Issue 1, 2021 ISSN: 2456-66672021, Impact Factor = 6.715
- 8. "Impact of Land cover and Land use on Surface Runoff A Case study of Vrishabhavathi Basin in Bangalore", (ETWQQM-2021)2021 National



Conference of Emerging Trends in Water Quantity & Quality Management 9. "Performance Evaluation of different types of Nano Concrete for Sustainable Construction", Journal of Xidian University

An UGC-CARE Approved Group 2 Journal

ISSN NO: 1001-2400, Impact Factor: 5.4, VOLUME 15, ISSUE 6, 2021.pp63-70

10. "Comparison of Hydraulic Performance of Solid and Perforated Plates, International Conference on Multidisciplinary Technologies & Challenges in Industry 4.0 at EPCET, Bangalore", IJSRCE Volume 7 Issue 1 ISSN: 2456-6667 2021

Impact F=6.715

11. "Evaluation of Momentum and kinetic energy correction factors for laboratory open Channels, at EPCET", IJSRCE Volume 7 Issue 1,2021 ISSN: 2456-66672021

Impact F=6.715

- 12. "Thermal performance of a Divided-flow type, Shell and Tube, Compact Heat Exchanger, International Conference on Thermo-fluids and Energy Systems (ICTES2019) 27-28 December 2019, Paper No. 012031, Bengaluru, India", Journal of Physics, Dec 2019 conf. Ser. 147301203
- 13. "Investigation of hydraulic performance of a flap type check valve using CFD and experimental technique10(1)", IJMET, International Journal of Mechanical Engineering and Technology (IJMET) Volume 10, Issue 1, January 2019, pp. 409–413, Article ID: IJMET\_10\_01\_042
- 14. "Optimisation of pressure loss and flow distribution at pipe bifurcation", IJETSR, pp 199-206,Vol.4, issue 9, September 2017 IISN 2394-3386
- 15. "Dynamics of Rapid Urbanization of Bangalore and Its Impact on Land-Use/Land-Cover—A"

case study of Vrishabhavathi sub-watershed pp2338-2345 Vol. 2 Issue 3,IRJET

- 16. "Morphometric analysis of a Vrishabhavathi sub watershed upstream side of Gali Anjaneya temple using geographical information", IJRET Vol.3 issue 7,July 2014
- 17. "Impact of urbanization on water quality parameters a case study of Ashtamudi lake Kollam,pp140-147", IJRET VOL.3,special issue 6, March 2014
- 18. "Hydraulic performance of faucet aerator as water saving device and suggestions for its improvements, July 2014, pp243-247", IJRET Vol.3 issue 7
- 19. "Determination of Thermal Performance of Wall Materials for the Construction of Green Building", Volume No.3 Issue No.10, pp: 1284-1286, 2014, IJSET
- 20. "Manning's roughness coefficient in alluvial channels affected by seepage", June 2012,pp116-124
- 21. "Discussion of "stability and mobility of sand-bed channels affected by seepage" vol. 128, issue 2 (April 2002)Jl. ASCE (Irrigation & Drainage)
- 22. "Stability and mJl. of ISHobility of sand-bed channels Affected by seepage" Vol. 125 (6), 1999, pp370-379Jl. ASCE (Irrigation & Drainage)

#### Magazines

1. Water Transport Smoother on Nature's Way, pp 22-24, "Kerala Calling" Magazine, Official Web Portal of Government, July



#### 2007

- 2. "Cost effectiveness and Hydraulic behaviour of Domestic water pipes", Karnataka Vol. 19, No.2 pp 40-43, 2010, Research Bulletin NIT,K Surathkal ISSN: 0972-6985
- 3. Effects Of Seepage On Incipient Motion, Resistance, Stability And Mobility Of Sand Bed Channels, Scholar Article from iisc.ac.in, 18.5.2012

#### Conferences

#### **National Conferences**

- 1. "Prediction of fly ash concentration using CFD Technique A case study 2016", National Conference on convergence of Science, Technology,& Management, DSATM
- 2. "Dynamics of rapid urbanization of Bangalore and its impact on land use and land cover case study of Vrishabhavathy pp 298-303
- ", National conference on Climate Change and sustainablewaterresources Management, Dept. of Civil Engineering, NIT, Warangal 2015
- 3. "Determination of pressure losses and Flow distribution at pipe Bifurcation" HYDRO-2015, IIT Roorkee & Indian Society for Hydraulics, Pune
- 4. "Determination of optimum pressure losses and Flow distribution at pipe Trifurcation", paper No. HYD-135,pp97
- 5. "Improvement of Hydraulic performance of a Check valve using CFD & Exp. Methods", National Level conference on Technology for
- Physically Challenged, Lokmanya Tilak College of Engineering, Navi Mumbai.
- 6. "Effects of boat movement on canal bank erosion—A case study of Kuttanadu (Kerala)", 21st Kerala Science Congress, Kollam 2008 Kerala Council for Science, Technology, Thiruvananthapuram
- 7. "Impact of Urbanization on water quality parameters A case study of Ashtamudi Lake, Kollam (Won UNICEF 2<sup>nd</sup> best paper Award)", National conference on Hydraulics, water-resources and Environment Malviya National Institute of Technology Jaipur (Rajasthan), 2008
- 8. "Introduction to CFD and Turbulence Modelling AICTE sponsored course for Engineering College Teachers", Jawaharlal Darda Engineering College, Yavatamal (M.S.), 2007
- 9. "CFD Simulation of Flow through a Check valve", pp 152-156,National Conference on Mechanical Engineering, MSRIT Bangalore, 2004
- 10. "Effect of Suction and injection on Incipient motion of sand bed channels", National conference on Hydraulics and Water-resources. VNIT, Nagpur,2004
- 11. "Environmentally Products and Eco- mark 2003", Strategies for sustainable planning & Management of Industrial Ecology



Kumarguru College of Technology Coimbatore.

- 12. "Evaluation of Hydraulic and thermal performance of Shell and Heat Exchanger using CFD technique and Analytical methods", 30th National Fluid Mechanics and Fluid Power Conference NIT Surathkal (Karnataka), 2003
- 13. "Environmental Issues and their impact assessment in Water- Resources projects, pp B5-B9", Indian Environment Congress, Palakkad Kerala, 2002

#### **International Conferences**

- 1. Pollution of Backwater in Kerala and Method for its Impact Assessment, page no. 280-283, International Conference on "Recent Trends in Environmental Science and Engineering APS College of Engineering, Karnataka, 2017
- 2. Green Roof concept for sustainable construction A case study on thermal performance of roof at Bangalore city, 4<sup>th</sup> International Conference on New Frontiers of Engineering, Science and Management and Humanities Osmania University, Hyderabad, 2017
- 3. Hydraulic performance of Multi-slotted orifice plate using CFD Technique and experiments as flow control devices pp53-60, 2014, International Multi conference on Innovations in Engineering and Technology on Special Concrete and Construction Technology, VVIT
- 'Sustainable construction practices for Green Building', International Conference on Energy, Environment, Eco-friendly buildings, Jain, 2013
- "Flow Measurement & Control Techniques/Software in Industrial process & Water-distribution system", Overseas personnel under ITEC scholarship at FCRI Palakkad "Open-channel and Water Distribution system", 2010
- 6. "Improvement of Hydraulic Performance of Conventional Orifice Plates", Global Conference Towards intelligent Flow Measurement and Control System, Fluid Control Research Institute, Palakkad 2007
- 7. "Vortex Flow meter based on a Sunken stream Effect", International Conference on Hydrocarbon Flow Measurement, Fluid Control, 2004
- 8. "Multiphase Flow Measurement through Radiation Attenuation Method", International Conference on Hydrocarbon Flow Measurement Fluid Control Research Institute Palakkad, 2003
- 9. "Application of Finite Volume Scheme for Estimation of Fly-ash", Global conference on Flow metering and control, Fluid Control Research, 2000
- 10. "Stream power of alluvial rivers affected by seepage", International Conference on Civil Engineering I. I. Sc. Bangalore, 2000
- 11. "Seepage Effects on Stream Power and Transport of Sand bed particles", pp180-187, International conference on Environmental Management, Univ. of Wollongong, Australia

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Achievements / Awards / Recognitions	

## **Achievements:**

- He has received the UNICEF best paper award at MNIT Jaipur
- Completed 28-sponsored research projects (IGCAR Kalapakkam, BHEL Bhopal, Jyoti Ltd Baroda, KPCL Bangalore, Karnataka urban water supply and drainage board, NPOL Kochi, King Abdul Aziz City for Science and Technology Riyadh, Saudi Arabia, BRNS Mumbai and more)
- He has delivered online classes for Fluid Mechanics and Strength of material subjects in VTU – Edusat classes
- He has guided 4-PhD students and 12 M.Tech students
- Life Member of 5-professional bodies (ISTE, ICI, IGBC, IEI and ISH).
- Published more than 90-research papers in reputed journals and conferences (Includes publications in ASCE, IAHR, Journal of Physics, Indian Society of Hydraulics) and,
- One patent

#### **Recognition:**

- Recognized research supervisor for VTU, Belagavi, Jain University, Bangalore, Anna University, Chennai.
- BoE member of VTU, Belgavi of Civil Engineering for 1 year.
- Delivered ATAL FDP lectures on green and nano technology.

#### Awards:

 Received 4 best paper award in National and International Conferences



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