Sanaga Srinivasulu Professor of Civil Engineering Department of Civil Engineering JNTUH College of Engineering Jawaharlal Nehru Technological University Hyderabad, Kukatpally, Hyderabad, Telengana, India Email: ss lu@jntuh.ac.in,sanagas@gmail.com https://jntuhceh.ac.in/faculty\_details/1/dept/ 292 Ph: +91-9441718112(INDIA)



### I. EDUCATION

- 1. Ph.D. (Civil Engg.,), January 2004, IIT Kanpur, India,
- 2. M.Tech (Water Resources ) from JNT University Hyderabad, India
- 3. B.E(Civil Engineering from SRKR Engineering College, Andhra University, AP,India
- 4. Primary Education to Intermediate Education, Markapuram, Prakasam (Dt), AP, India

### **II. EXPERIENCE:**

### <u>In India</u>

- Presently working as a Professor of Civil Engineering at JNTU Hyderabad since Jan 2011.
- 29 years of Teaching, Research & Consultancy experience at JNT University Hyderabad
- Joined on September 14, 1994 at JNTU as a Lecturer of Civil Engineering

# Outside India

- 1. Saga University, Japan, 01-12-2015 to 30-06-2016 Foreign Researcher
- 2. Saga University, Saga, JAPAN, 01-04-2012 to 30-09-2012 Foreign Researcher
- 3. University of Saskatchewan, Saskatchewan, CANADA, 01-08-2008 to 31-05-2009 Post-Doctoral position
- 4. University of Colorado, Boulder, USA, 07-05-2007 to 01-06-2007 Visiting Scholar

# **III. ACADEMIC DISTINCTIONS AT INTERNATIONAL LEVEL**

- 1. American Society of Civil Engineers(ASCE) Journal of Hydrological Engineering Best Discussion Award -2006
- 2. **Visiting Scholar at CADSWES, University of Colorado, USA** from 7<sup>th</sup> May 2007 to 1<sup>st</sup> June 2007 to participate training course on Decision tools for Water Management using RIVERWARE.
- 3. **Post Doctoral position : University of Saskatchewan, Saskatoon, Canada** from 1<sup>st</sup> August 2008 to May 2009
- 4. Foreign Researcher ( A Guest Professor), Saga University, Japan from April 1, 2012 to September 30, 2012
- 5. **Associate Editor to International Journal** the Lowland Technology International (LTI), Published by IALT, Saga University. From April 1, 2012 to September 30, 2012 & for 2015-2016.
- 6. **Selected for Asian Institute of Technology (AIT), Bangkok** for Secondment Programme by MHRD Govt of India in the year 2013.

- 7. Delivered **Expert lecture at ASIAN Collaborative Lecture** on Development and Management of Infrastructure in Lowland City, Saga, JAPAN, October 1-4, 2014
- 8. **Foreign Researcher ( A Guest Professor), Saga University, Japan** from December 1, 2015 to June 30, 2016.
- 9. **Delivered Special lecture** for Lowland Research Association(LORA) on "Water Environment of the Lowland in India" at ILMR, Saga University, Japan
- 10. Acted as session chair for the a session conducted at International Symposium for Low Land Technology (ISLT 2012) conducted at Bali , Indonesia, and at Saga, Japan, and for some National conferences conducted in India.
- 11. **Peer Reviewer** to ASCE, Elsevier, AGU Publishing Journals
- 12. Life Member of international Association of lowland Technology
- 13. Member Dam safety committee Govt of Telangana for 3 years 2022-25

#### **IV. RESEARCH PUBLICATIONS & PROJECTS**

#### a)Books/Book Chapters

- 1. Srinivasulu, S. and Jain, A (2008), Rainfall-runoff Modelling: Integrating available data and modern techniques. In: RJ Abrahart, LM See, D Solomatine (eds.), Practical Hydroinformatics: Computational intelligence and technological developments in water applications, Springer-Verlag, 59-70.
- Jain, A and Srinivasulu, S. (2008), Hydrologic model calibration using evolutionary optimisation. In: RJ Abrahart, LM See, and D Solomatine (eds.), Practical Hydroinformatics: Computational intelligence and technological developments in water applications, Springer-Verlag, 293-303.

### b) International Refereed Journals

- 1. Sindu A, Bhagawan D, Kiran Kumar P, Vijaya Krishna S, himbindu V & Srinivasulu Sanaga " Treatment of pesticide intermediate industrial waste water using different advanced treatment methodologies "Applied Water Science August 2021
- Sindu A, Bhagawan D, Kiran Kumar P, himbindu V & Srinivasulu Sanaga "Treatment of pesticide intermediate industrial waste water using hybrid methodologies "Applied Water Scince March 2021
- 3. P. Kesava Rao, Y.Mishima, S. Srinivasulu and N.Bhaskara Rao. "Identification of Urban Spraw- A case study of Vijayawada City, Andhra Pradesh, India". Lowland Technology International, Volu 18(1), 2016,59-64, 2016
- 4. Nikhat Nawaz, S.Srinivasulu, P.Kesava Rao. Automatic Extraction of Water Bodies Using Whole R Method. International Journal of Environmental Science and Engineering Vol.7 No: 12,2013. WASET
- 5. Elshorbagy, A., Corzo, G., Srinivasulu, S. and Solomatine, D. 2010. Experimental Investigation of the Predictive Capabilities of Data Driven Modeling Techniques in Hydrology: I. Concepts and methodology. *Hydrol. Earth Syst. Sci.*, 14,1931-1941.
- 6. Elshorbagy, A., Corzo, G., Srinivasulu, S. and Solomatine, D. 2010. Experimental Investigation of the Predictive Capabilities of Data Driven Modeling Techniques in Hydrology: II. Application. *Hydrol. Earth Syst. Sci.*, 14,1943-1961.
- 7. Srinivasulu Sanaga, Ramu K and Madhira Madhav, Identification of swell potential and Degree of Expansion using ANN, Int. Jour. of Earth Sciences & Engineering, Vol. 3 (2), 2010.

- 8. S.S. Asadi and S. Srinivasulu (2009) "An Integrated approach for Ground water Resources Mapping using Remote Sensing & Geographic Information System" Journal of Environmental Science Research Internation, 1(1-2), January-December 2009.
- 9. Sanaga Srinivasulu and Ashu Jain. (2009), "River flow prediction using integrated approach", ASCE J. Hydrol. Engg., Vol14(1), 75-83.
- 10. Jain, A. and Srinivasulu, S. (2006), "Integrated Approach to Modeling Decomposed Flow Hydrograph using Artificial Neural Network and Conceptual Techniques", J. Hydrol. 317,291-306
- 11. Srinivasulu, S. and Jain, A. (2006), "A Comparative Analysis of Training Methods for Artificial Neural Network Rainfall-Runoff Modeling", *Applied Soft Computing*. 6,295-306.
- 12. Jain, A., Srinivasulu, S., and Bhattacharjya, R. (2004), "Determination of an Optimal Unit Pulse Response Function using *Real-Coded* Genetic Algorithm", *J. Hydrol.*, 303(1-4),199-214.
- 13. Sudheer, K.P., Jain, A., and Srinivasulu, S. (2004), "Discussion of Performance of Neural Networks in Daily Stream flow Forecasting by S. Birikundavyi, R. Labib, H. T. Trung and J. Rousselle", *ASCE J. Hydrol. Engg.*, 9(6), 553-555.
- 14. Jain, A., Bhattacharjya, R., and Sanaga Srinivasalu (2004), "Optimal Design of Composite Channels using Genetic Algorithm", *ASCE J. Irrig. and Drain. Engg.*, 130(4), 286-295.
- Jain, A. and Srinivasulu, S. (2004), "Development of Effective and Efficient Rainfall-Runoff Models using Integration of Deterministic, Real-Coded Genetic Algorithms, and Artificial Neural Network Techniques", *Wat. Resour. Res.*, 40(4), W04302, doi:10.1029/2003WR002355.
- 16. Jain, A., Sudheer, K.P., and Srinivasulu, S. (2004), "Identification of Physical Processes inherent in Artificial Neural Network Rainfall Runoff Models?, *Hydrol. Processes*, 118(3), 571-581.
- **17.** Anjireddy. M. and Srinivasulu. S. (1994), "Comparison of IRS-IB LISS-IIA pixel array sizes for estimating suspended solids concentration in Hussain Sagar Lake, Hyderabad, India a statistical approach." *Int J. Remote Sensing*, Vol. 15, No. 18, 3693-3706, 1994.

#### c) National Refereed Journals:

1. Satyaji Rao, Y.R., Vijaya Kumar, S.V., Rao., U.V.N. and Srinivasulu, S. (2003)" Experimental studies on In-situ Field Infiltration Characteristics." *J. of Appli. Hydr.*. Vol. XVI, No. 3, 28-37.

#### d) International Conferences

- 1. Sanaga Srinivasulu, Srinivasa Rao Peddinti and Phanindra KBVN,Root Water Uptake Patterns in Young and Matured Orange Trees –A Case Study, ISLT-2018, Sep. 26-28, Hanoi, Vietnam.
- 2. Removal of Organic Pollutants From Industrial Waste Water Using Fenton Process ISLT-2018, Sep. 26-28, Hanoi, Vietnam.
- 3. Srinivasa Rao Peddinti , Phanidndra KBVN ,Sanaga Srinivasulu, Role of Climate Variables and spectral indices in characterizing ecosystem water use efficiency of flood irrigated citrus orchards AGU Fall Meeting,Deceber 11-15, New Orleans, USA 2017
- 4. Dr. S. Srinivasulu et al. Joint Use of ERT, Tracer, and Numerical Techniques to Image Preferential Flow Paths in a Fractured Granite Aquifer AGU Fall Meeting,Deceber 11-15, New Orleans, USA 2017
- Le Gia Lam, Sajay Kumar Shukla, Takenori Hino and Sanaga Srinivasulu," Conolidation of Soft Clay improved with PVD om Laboratory and Field Conditions", 10th International Symposium on Lowland, 15-17 September 2016
- 6. Nikhat Nawaz, S.Srinivasulu, P.Kesava Rao. Comparison of extraction methods for Water Bodies from Meta Data" 9th International Symposium on Lowland, September 29-October 1 2014, Saga, Japan.

- Nikhat Nawaz, S. Srinivasulu, P. Kesava Rao ; Automatic Extraction of Water Bodies Using Whole –R Method, International conference of world academy of science, engineering and technology international science index: issue 84 december 2013 Dubai pg no : 249 – 252
- Y.Mishima, H.Araki and Sanaga Srinivasulu "Response and Measures to Strong Intensity Rainfall of Saga Lowland, 8th International Symposium on Lowland, September 11-13, 2012, Bali Indonesia
- ANN based Prediction and Sensitivity Analyses of Maximum Dry Unit Weight and Optimum Moisture Content Values over a Large Range, 8th International Symposium on Lowland, September 11-13, 2012, Bali , Indonesia
- 10. Amin Elshorbagy, G.Corzo, D. Solomatine and S.Srinivasulu "Data Driven Techniques Scrutinized : is there one better than the rest?" European Geographical Union (EGU) General Assembly, Vienna, Austria, April 19-24
- Integration of System Theoritic and System dynamics modeling techniques for Prediction of Soil Moisture European Geographical Union (EGU) General Assembly, Vienna, Austria, April 19-24
- Srinivasulu, S. and Jain, A. (2003), "Comparative Analysis of Training Algorithms for ANN Rainfall-Runoff Models", Proc. <u>IICA12003</u>: First Indian Intl. Conf. on Artificial Intelligence, December 18-20, 2003, Hyderabad, India.
- Srinivasulu, S. and Jain, A. (2003), "Systems Theoretic Approach to Modeling Rainfall-Runoff Process with Conceptual Component", Proc. <u>*River Basin Management 2003*</u>: Second Intl Conf. on River Basin Mgmt., 28-30 April 2003, Las Palmas, Gran Canaria, Spain
- 14. Srinivasulu, S. and Jain, A. (2003), "Optimal Unit Hydrograph using Genetic Algorithm", *Proc. <u>River Basin Management 2003</u>: Second Intl Conf. on River Basin Mgmt.*, 28-30 April 2003, Las Palmas, Gran Canaria, Spain
- 15. Jain, A. and Srinivasulu, S. (2002), "Calibration of Infiltration Parameters using Genetic Algorithm", *Proc. of HYDRO 2002: Conference On Hydraulics, Water Resources & Ocean Engg.*, December 16-17, 2002, IIT Bombay, Bombay, India.
- 16. Jain, A. and Srinivasulu, S. (2002), "Rainfall-Runoff Pattern Mapping using Artificial Neural Networks", Proc. of Intl Conference on Hydrology and Watershed Management with a focal theme on water quality and conservation for sustainable development, December 18-20, 2002, Centre for Water Resources, Institute of Post Graduate Studies and Research, JNTU Hyderabad, India

### e) <u>Technical Report(International)</u>

1. Elshorbagy, A. Corzo, G., Srinivasulu, S. and Solomatine, D. 2009. Experimental investigation of the predictive capabilities of soft computing techniques in hydrology. CANSIM Series Report No. CAN-09-01, Centre for Advanced Numerical simulation (CANSIM), Department of Civil & Geological Engineering, University of Saskatchewan, Saskatoon, SK, Canada, pp. 49. CAN-09-01.pdf

### f) Major Research Project (Recent):

1. Sanctioned a research project as a co-investigator from Department of Science and Technology Project Titled "Cost effective and novel treatment method development for the remediation and reuse of pesticide industrial wastewater" worth appox. Rs. 2.5 millions

g) *No of scholars Guided*: one

# <u>Guiding</u>: two

h) <u>Courses Organized</u>: one GIAN Course on "Advanced Numerical Modeling of Meteorology and Emissions for Air Quality Modeling"

i) Work Shops and Courses Organized: international:1, National :1

### j) Books Edited : one

## k)Courses Taught

# UG Courses

Engineering Mechanics(Applied Mechanics), Fluid Mechanics and the concerned laboratory, Hydraulics and Hydraulic machinery and its concerned laboratory, Strength of Materials-I, Strength of Materials –II and the concerned laboratories, Structural Analysis-I, Water Resources Engineering –I, Water Resources Engineering – II, Applied Hydrology, Irrigation Drawing in Civil Engineering, C-Programming and numerical Methods, Remote Sensing &GIS

### PG Courses

Water Resources System, Surveying Technology, Geographical Information System, Numerical Methods in Structural Engineering, Artificial Neural Networks and Fuzzy logic, Remote Sensing Physics, Digital Image Processing in Remote sensing

# V. ADMINISTRATIVE (ACADEMIC) EXPERIENCE:

- 1. Head of the Department for Department of Civil Engineering, JNTUH College of Engineering, Kukatpally, Hyderabad from July 2021
- 2. **Officer-in- Charge (Head of the Department)** for Centre for Spatial Information Technology (CSIT), Institute of Science and Technology (formerly IPGSR), JNTU Hyderabad, from December 1999 to June 2000.
- 3. **Nominated and functioned of as** a Board of Studies Chairman for the faculty of Civil Engineering to JNT University Hyderabad 2017 to 2019
- 4. **Nominated and Functioned** as a Board of Studies Chairman for the faculty of Agricultural Engineering to JNT University Hyderabad since 2014-2016
- 5. **Nominated and functioned** as a Board of studies member for the faculty of Civil Engineering to JNT University Hyderabad 2012-2014
- 6. **Nominate and functioned** as a Board of Studies member for the faculty of Spatial Information Technology.
- 7. Officer -in- Charge of Examinations, Institute of Science of Technology (IST), for 2 years
- 8. Officer-in-Charge Examinations of MCA Nodal Centre, at IST for 2 years
- 9. Nominated and functioned as a core committee member to monitor Centre of Excellence on Disaster management sanctioned under TEQIP
- 10. Nominated and functioned as a Finishing School Coordinator at JNTUH college of Engineering
- 11. **Nominated and functioned** as a NCC officer to look after NCC requirements of the students of JNTUH College of Engineering, Hyderabad.
- 12. Nominated and Functioned as a Coordinator EMACET-2009, EAMCET-2010 and EAMCET-2011.
- 13. **Nominated and Functioned** as a co-opt member for the committee constituted by APSCHE to study the impact of intermediate marks inclusion in the EAMCET at the year 2010.
- 14. **Nominated and Functioned** as Building Committed Convener for the construction of New IST Building under the TEQIP Phase-I
- 15. **Nominated and Functioned as Infrastructure facilitator for Institute of Science and Technology** from 2004 to 2006.
- 16. **Member, Board of Governing Council** for VNR Vignana Jyothi Institute of Engineering and Technology, Bachupally, Hyderabad and Rishi Engineering College for women, Hyderabad.

- 17. Executed some consultancy projects in latest worth of 70 lakhs under the JNT University
- 18. Nominated and Functioned as a Lab in charge for the laboratories at the Department Level :Computer Lab, Fluid Mechanics & Hydraulic Machinery Lab, Environmental Engineering Lab, Modeling lab

### **19.** Participation : Extra Circular Activities

- 1. Initiated and coordinated the 1st IST Sports meet during 2004-2005
- 2. Participated Janmaboomi programme at Tuni Mandal initiated by the state Government of Andhra Pradesh
- 3. Officially accompanied the students for study tours
- 4. Nominated and functioned in the Teaching Association Executive committee's both at Kakinada and Hyderabad
- 5. Elected and functioned as an Account secretary to the Married Students Welfare Committee (MSWC) during the academic year 2002-03 at IIT Kanpur, India

#### Sanaga Srinivasulu