Curriculum Vitae

Dr.Vimal Chandra Sharma Virivinti

PERSONAL DETAILS

Male; Citizen of India; Email- *vcsharma.iith@gmail.com; ce16resch01005@iith.ac.in*

MOBILE: +91 9533326967

KEY AREAS OF INTEREST

- Hydrology and hydraulics
- Geoinformatics
- Water Resources Engineering
- Soft computing

CAREER HIGHLIGHTS

1. July 2014 - February 2015, RMSI Pvt. Ltd, sector 16, Noida, Uttar Pradesh, India. As (Risk & Insurance Engineer)

Notable Accomplishments

Worked on GIS mapping and Riverine flood modelling for selected Indian cities using the HEC-RAS 1D tool.

2. February 2015 - December 2015, Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization, Dehradun, Uttarakhand. As (Junior Research Fellow)

Notable Accomplishments

Worked in the ISRO's DMS project "Remote Sensing, Ground observation and Integrated Modelling based Early Warning System (EWS) for Climate Extremes of North Himalayan region".

SCHOLASTIC CREDENTIALS

2021 Ph.D. in Environmental & Water Resources Engineering (EWRE), Indian Institute of Technology Hyderabad, India.

Topic: *Ensemble Streamflow and Flood-Inundation Estimation using Physically Based Models in the Lower Godavari River Basin, India*

(Supervisor: Dr. Satish Kumar Regonda, Assistant Professor, Department of Civil Enginering & Head, Climate Change)

2014 Master of Technology in Geoinformatics & Remote Sensing(GI& RS), AMITY University, Noida, India.

2012 Bachelor of Technology in Digital Techniques in Design and Planning (DTDP), School of Planning and Architecture (SPA), Jawaharlal Nehru Architecture and Fine Arts University (JNAFAU), Hyderabad, India.

SOFTWARE PROFICIENCY

- Programming Language: R (mid level)
- Geographic Information System: ArcGIS, QGIS, MapWindow GIS
- Digital Image Processing & Remote Sensing: ERDAS IMAGINE
- Hydrology and Hydraulics: HEC-HMS, HEC-RAS 1D and 2D.

PAPERS PUBLISHED

Journal Paper

1. **Sharma, V.C.**; Regonda, S.K. Multi-Spatial Resolution Rainfall-Runoff Modelling—A Case Study of Sabari River Basin, India. Water 2021, 13, 1224. https://doi.org/10.3390/w13091224
2. **Sharma, V.C**.; Regonda, S.K. Two-Dimensional Flood Inundation Modeling in the Godavari River Basin., India—Insights on Model Output Uncertainty. Water 2021, 13(2), 191. https://doi.org/10.3390/w13020191
3. Patnaik, S., **Sharma, V. C**., Biswal, B. 2019. Evaluation of an instantaneous dryness index-based calibration-free continuous hydrological model in India. Hydrology Research, 50(3), 915-924. https://doi.org/10.2166/nh.2019.081
4. Dhote, P. R., Thakur, P. K., Aggarwal, S. P., **Sharma, V. C.,** Garg, V., Nikam, B. R., & Chouksey, A. (2018). Experimental flood early warning system in parts of Beas Basin using integration of weather forecasting, hydrological and hydrodynamic models. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 42, 5. https://doi.org/10.5194/isprs-archives-XLII-5-221-2018.

International & National Conference

1. **Sharma, V. C., &** Regonda, S. (2021). Rainfall-runoff modeling at different spatial scales: Application of semi-distributed hydrological modeling in the Godavari River Basin, India. Earth and Space Science Open Archive ESSOAr. https://doi.org/10.1002/essoar.10506062.1
2. **Sharma, V.C.,** Regonda, S.K., Rao, Y.V., Reddy, Y.K., Nagaratna, K. Comparison between radar-, rain gauge and satellite-based rainfall for Hyderabad region, India. IRAD 2019 conference, January 10 to 12, 2019. Pune, India. *(Presented)*
3. Swagat, P., **Sharma, V.C.,** & Biswal, B., 2018. 'Is there a Universal Calibration-Free Continuous Hydrological Model? Evaluation of an Instantaneous Dryness-Index Based Model, Testing a Dynamic Budyko in Godavari and Krishna River Basins. SWAT conference, IIT madras. *(Presented)*
4. Swagat, P., **Sharma, V.C.,** and Biswal, B., 2017. 'An Instantaneous Dryness-index Based Universal Dynamic Zero-parameter Budyko Model for Prediction in Ungauged Basins'. AOGS conference, Singapore. *(Poster)*
5. Biswal, B., Swagat, P. and **Sharma, V.C.,** 2017. Is there a 'Universal' Dynamic Zero-Parameter Hydrological Model? Evaluation of a Dynamic Budyko Model in the US and India. AGU Fall Meeting, New Orleans, Louisiana. *(Poster)*
6. Biswal, B., Otta, k., Patnaik, S., Sharma, D. and **Sharma, V.C**., 2017. 'A Dynamic Zero-Parameter Budyko Model for Daily River Flow Prediction in Ungauged Regions: Testing the Model in Amazon Basin'. Gordon Conference, Lewiston. *(Poster)*
7. Aggarwal, S., **Sharma, V.C**., Thakur, P, K., and Aggarwal, S, P., 2015. 'Hydrological Modeling in Hilly Watershed with Free and Open Source Software (FOSS)', Open Source Geospatial Foundation (OSGEO), FOSS4G. *(Conference proceedings)*

ACADEMIC PROJECTS

1) *Bachelor Thesis*: "Computing Tsunami arrival times along the east coast of India using different GIS techniques for a source in the Andaman region", NGRI (National Geophysical Research Institute), Hyderabad.
   Tools Used: Arc GIS, Surfer, Grapher, Google Earth, Tunami-N2 model
2) *Master's Thesis:* "Geoinformatics approach for flood-prone area assessment in the Godavari basin, Telangana state, India", ISRO (Indian Space Research Organization) - NRSC (National Remote Sensing Center), Hyderabad.
   Tools Used: ArcGIS, Erdas Imagine

WORKSHOPS ATTENDED

1. GIAN course on "Weather Radar and Hydrology" at IIT Madras (5 March 2018 to 17 March 2018)
2. ISPRS Summer School on 'Online Sharing of Geospatial Data, Algorithm and Model', 2015 at IIRS, Dehradun, collaboration with Wuhan University, China.
3. 'Recent advances in water resources and environmental engineering computation' organized by ISM, Dhanbad in association with Texas Tech University (22 March 2015 to 26 March 2015).

TEACHING EXPERIENCE

1. Taught Concepts in hydrology, fundamentals of remote sensing, GIS and HEC-HMS & HEC-RAS modelling tools to graduate and undergraduate students.
2. Assisting in project/thesis of graduate and undergraduate students.

GRANTS & AWARDS

2016, Doctoral Fellowship; "Frontier Areas in Science and Technology – Centre of Excellence (FAST-CoE) in sustainable development", IIT Hyderabad and Ministry of Human Resources Development (MHRD), India.

2019, *International travelling fund*; attended the "AGU Fall Meeting 2019" at San Francisco, The United States of America.

ACADEMIC REFERENCES

1. Dr. Satish Kumar Regonda, Assistant professor, department of civil engineering, IIT Hyderabad, Telangana, India. Email-id: satishr@ce.iith.ac.in , phone: +91 40 2301-7005.
2. Dr. K. B. V. N Phanindra, Associate professor, department of civil engineering, IIT Hyderabad, Telangana, India. Email-id: phanindra@ce.iith.ac.in , phone: +91 40 2301-6117.
3. Dr. Praveen K Thakur, Scientist/Engineer- SF, Water Resources Department, Indian Institute of Remote Sensing (IIRS) - ISRO, Dehradun, Uttarakhand, India. Email-id: praveen@iirs.gov.in , phone: +91 135 252 4162.
4. Dr. Madhulika Singh, Director and Professor, Amity Institute of Geo-Informatics & Remote Sensing (AIGIRS), Amity University, Sector 125, Noida - 201303, Uttar Pradesh, India. Email-id: msingh14@amity.edu , phone: 0120-4735601; Ext. 5601

PERSONAL INFORMATION

Languages known	: Telugu, Hindi, English (read, write and speak)
Date of birth	: 15/02/1991
Address	: Hyderabad, India

Date: 15 December 2021

Signature

(Vimal Chandra Sharma)