VINAY KUMAR GADDAM

Designation	: **Associate Professor**
E-Mail ID	: vinaygaddam@vrsiddhartha.ac.in
Contact at	: CE 204A, Department of Civil Engineering, V. R. Siddhartha School of Engineering, Siddhartha Academy of Higher Education (An Institution Deemed to be University) Vijayawada – 520 007, Andhra Pradesh.

Education

Ph. D (Civil Engineering)
2019, V.T.U, Belgaum

M.Tech (Remote sensing and GIS),
2011, DGRL (SASE) and Bharathair University

Experience

Experience-Academic/Research: 13 Years

University/ College	Designation	Period
Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada	Associate Professor	31st Mar 2023 – Till Date
Dhanekula Institute of Engineering and Technology	Associate Professor	April 2019- Mar 2023
National Center for Polar and Ocean Research, Ministry of Earth Science	Research Scientist	Aug-2015 – Mar 2019
Divecha Center for Climate Change, Indian Institute of Science, Bangalore	Research Fellow	Jan 2011- Jul 2015

Honors and Awards

- Nehru-Grimsson Fellowship by President of Iceland

- Vishwakarma Award by CIDC, Member of Niti AAyog

- Young scientist award by The Society for Science of Climate Change and Sustainable Environment New Delhi
- Distinguished Scientist by The National Environmental Science Academy, New Delhi

Research Interests

Broad Area of Research:
Remote Sensing and GIS, Environmental Engineering

Courses Taught

- **Remote Sensing and GIS**
- **Water Resources Engineering**
- **Environmental Engineering**
- **Air pollution and climate change**

Research Profile

Publications

The recent publications and research contributions can be viewed from the following URLs

ORCID	https://orcid.org/0000-0002-9400-1893
Research Gate	https://www.researchgate.net/profile/Vinay-Kumar-43
Google scholar	https://scholar.google.co.in/citations?user=9PcAZxEAAAAJ&hl=en

Recognized Research Supervisor

S.No.	Department	University
01.	Environmental Engineering	Central University of Sikkim

Funded Research Projects

Completed	1. TBI-MSME worth 37.5 lakhs 2. NHAI pavement analysis- 3 lakhs
Progress	1. TARE fellowship by SERB worth : 18.75 Lakhs 2. IRP- Siddhartha Academy- 4 lakhs 3. AICTE- AURA- 2 Lakhs
Applied	1. SERB Sure for 27 Lakhs

Publications

S.No	Title	Journal	Year	Vol.	Page No.	ISSN No.	Impact Factor	Whether you are the First/ Corresponding Author	Journal no.
1	Estimation of glacial retreat and mass loss in Baspa basin, Western Himalaya	Spatial information Research - Springer Nature	2016	24-3	257-266	2366-3294	2.06	FIRST AUTHOR	41324
2	Reconstruction of Specific mass balance for glaciers in Western Himalaya using Seasonal Sensitivity Characteristic (s)	Journal of Earth System Science- Springer Nature	2017	126-4	55	0973-774X	2.045	FIRST AUTHOR	12040
3	Mass balance estimation using geodetic method for glaciers in Baspa basin, Western Himalaya	Current Science- Indian Academy of Sciences	2017	113-3	486-492	0011-3891	1.169.	FIRST AUTHOR	-
4	Assessment of snow-glacier melt and rainfall contribution to stream	Environ mental Monitori	2018	190	154	1573-2959	3.420	First author	10661

	runoff in Baspa Basin, Indian Himalaya	ng and Assessm ent- Springer Nature						
5	Assessment of the Baspa basin glaciers mass budget using different remote sensing methods and modeling techniques,	Geocarto Internatio nal- Taylor and Francis	2019	1010	6049	1752-0762	4.889	First author	-
6	The effect of black carbon on reflectance of snow in the accumulation area of glaciers in the Baspa basin, Himachal Pradesh, India	The Cryosphe re Discussio ns	2013	7-2	2304-2317	1994-0440	1.5	SECOND AUTHOR	-
7	Observed spatio-temporal changes of winter snow albedo over the north- west Himalaya.	Internatio nal journal of climatolo gy	2017	37-5	2304-2317	1097-0088	4.069	Coauthor	-
8	Applications of SPOT- 7 tri-stereo imagery in deriving the surface topography and morphological changes of glaciers in Indian Himalaya	Geocarto Internatio nal- Taylor and Francis	2019	36-13	1512-1532	1752-0762	4.889	First author	-
9	Reconciling high glacier surface melting in summer with air temperature in semi arid zone of Western Himalaya	Water MDPI	2019	11-8	1561	2073-4441	3.53	Co-author	-
10	Moisture sources for precipitation and hydrograph components of the Sutri Dhaka Glacier Basin, Western Himalayas	Water MDPI	2019	11-11	2242	2073-4441	3.53	Co-author	-

11	Assessment of runoff in Chandra river basin of Western Himalaya using Remote Sensing and GIS Techniques	Environmental Monitoring and Assessment-Springer Nature	2022	194	145	1573-2959	3.420	First author	10661
12	Application of "OTSU- an image segmentation method for differentiation of snow and ice regions of glaciers and assessment of mass budget in Chandra basin, Western Himalaya using Remote Sensing and GIS techniques	Environmental Monitoring and Assessment-Springer Nature	2022	194	5	1573-2959	3.420	First author	10661
13	Assessment of mass balance using AARTI method	Remote sensing in earth system sciences -Springer Nature	2024		accepted	-	5.19	First author	11356
14	Assessment of mass and volume changes in Baspa basin, Western Himalaya	Indian Society of Remote Sensing, Springer Nature	2025		accepted	1573-2959	2.420	First author	

15	Tropical Cyclone 'Helen- Triggered Submarine Slope Failure in the Bay of Bengal in November 2013	Landslides- Springer Nature	2024	-	accepted	-	6	Co- author	
16	Analysis of spatio-temporal variations in snow cover over Western Himalaya	SPIE- Remote Sensing	2016	98781F	633	-	0.4	First author	-
17	Spatio-temporal changes observed in supra-glacial debris cover in Chenab Basins, Western Himalaya	SPIE- Remote Sensing	2016	98772A	993	-	0.4	First author	-
18	Applications of machine learning algorithms via Google Earth Engine interface to interpret snowline altitudes: A case study in Chandra basin	Lecture Notes in Civil Engineering –Springer Nature	2023					First author	https://www.springer.com/series/15087
19	Leveraging Machine Learning and Google Earth Engine for Snowline Altitude Analysis: Insights from the Parbati Basin, India	International Journal of Geoinformatics	2024				1.4	Corresponding author	https://doi.org/10.52939/ijg.v20i9.3545
19	Evaluation of glaciers using machine learning models	Journal of Earth Science Informatics	2025		review		2.8	Corresponding author	

Patents

Granted	3

Professional Service : Editor/Reviewer

1. Remote sensing- MDPI,
2. Scientific Reports- Nature
3. Environmental Management- Springer Nature
4. Journal of Hydrology, Elsevier
5. Journal of Remote sensing applications, society and Environment
6. Journal of Spatial Information Research- Springer Nature
7. Science of Total Environment- Elsevier

Professional Bodies Membership Details

1	Chartered Engineer, Civil Engineering - Indian Institute of Engineers, Kolkata
2	Associate member of Indian Institute of Engineers, Kolkata
3	Life Member of Indian Society of Remote Sensing, Dehradun (Bangalore Chapter, No. 373)
4	Life Member for International Association of Hydrological Sciences (No. 13780)
5	Annual Member for International Glaciological Society (No. 00008798)
6	Life Member for International Association of Engineers, Taiwan (No. 151790)
7	Life Member for International Society for Development and Sustainability, Japan (No. M173305).
8	Life member of Indian Concrete Institute
9	Life Member of National Environmental Science Academy (NESA), New Delhi

(Dr. Vinay Kumar Gaddam)