Viral A. Dave

+(91) 942 768 7888 @ daveviral1@gmail.com

Doctorate in Pattern Recognition and Machine learning applications in the geospatial area with a formal training in Geomatics (M.Tech) and Electronics and Communication Engineering (B.E.). Core interests are learning analytics (application of AI and ML in Remote Sensing) and GIS applications. Objective is to be a part of an organization whose environment promotes team effort and provides opportunity for value based growth.

Education

Current **Doctor of Philosophy** | CPI : 8.36
Dhirubhai Ambani Institute of Information Communication and Technology,
Gandhinagar - India
Thesis : *"Desertification characterization using predictive soil modelling and pattern recognition"*
Supervisor : *Prof. Ranendu Ghosh*

2013 **Master of Technology,** Geomatics | Percentage : 60.40
Indian Institute of Surveying and Mapping - Survey of India
Jawaharlal Nehru Technological University
Hyderabad - India
Dissertation : *"Developing software for Block Adjustment of Cartosat-1 full pass images using Rational Polymonial Model based approach"*
Advisor : *Dr. Sanjay Singh (Scientist-E, SAC-ISRO)*

2011 **Advanced PG Diploma,** Geoinfomatics & Satellite communication | Percentage : 60.40
Gujarat University,
Ahmedabad - India

2009 **Bachelors in Engineering,** EC | Percentage : 60.40
Dharmsinh Desai University,
Nadiad - India

Work Experience

Sep. 2021 – Current
Teaching Assistant, Dhirubhai Ambani Institute of Information Jan 2016 Communication and Technology, Gandhinagar-India
› Worked on a project on "Developing Satellite Image Analysis package using Open Source Software". During this training we developed a tool to open georeferenced images and do some basic image processing analysis.

Sep. 2017 – Sep. 2021
Senior Research Fellow, Dhirubhai Ambani Institute of Information Jan 2016 Communication and Technology, Gandhinagar-India
› My work involved designing and developing algorithm for Block Adjustment of Cartosat-1 full pass images using Rational Polymonial Model based approach.

Dec. 2013 – Mar. 2017
Senior Research Fellow, Anand Agricultural University, Anand
› My work involved designing and developing algorithm for Block Adjustment of Cartosat-1 full pass images using Rational Polymonial Model based approach.

Sep. 2012 – Sep. 2013 | **MTech Research Intern, Space Applications Center, ISRO, Ahmedabad**
- My work involved designing and developing algorithm for Block Adjustment of Cartosat-1 full pass images using Rational Polymonial Model based approach.

Dec. 2010 – Aug. 2011 | **Research Intern , Bhaskaracharya Institute For Space Applications and Geo-Informatics, BISAG, Gandhinagar**
- Worked on a project on "Developing Satellite Image Analysis package using Open Source Software". During this training we developed a tool to open georeferenced images and do some basic image processing analysis.

Research Interests

Remote Sensing, Geographic Information System, Machine Learning, Artificial Neural Networks, Deep Learning, Pattern Recognition, Image Processing

Skills & Interests

Programmation	Python, C/C++, R
Softwares / Tools	QGIS, ArcGIS, ENVI, ERDAS, MATLAB, Autocad, Photoshop, InDesign
Typography	LaTeX, Microsoft Office
Language	Gujarati(native), Hindi (fluent), English (fluent)
Interests	Travelling, Horse Riding, Graphic design, Board games

Publications

Journals :

- **Monitoring cotton crop condition through synergy of optical and radar remote sensing**
  Dipanwita Haldar,Rojalin Tripathy,Viral Dave,Rucha Dave,B. K. Bhattacharya, Arundhati Misra
  Geocarto International 37 (2), 377-395, 2022 (IF:3.450)
  DOI : 10.1080/10106049.2020.1726506
- **Radar vegetation index for assessing cotton crop condition using RISAT-1 data**
  Haldar Dipanwita, Viral Dave, Arundhati Misra, and Bimal Bhattacharya
  Geocarto International 35, no. 4 : 364-375, 2020 (IF:1.380)
  DOI : 10.1080/10106049.2018.1516249
- **Identification of cotton crop in Gujarat using multi date RISAT-1 SAR data**
  Rucha Dave, Dipanwita Haldar, K. Manjunath, Viral Dave, Manab Chkraborty, Vyas Pandey
  Journal of Agrometeorology 21, no. Special issue-" NASA 2014" part-III) : 1-6, 2019 (IF : 0.557)
  Source : pdf
- **Identification of Desertification Hot Spot Using Aridity Index**
  Viral Dave, Megha Pandya. Ranendu Ghosh
  Annals of Arid Zone 58(12) : 39-44, 2019
  Source : pdf
- **Monitoring Cotton (Gossypium sps.) Crop Condition through Synergy of Optical and Radar Remote Sensing**
  Dipanwita Haldar,Rojalin Tripathy,Viral Dave,Rucha Dave,B. K. Bhattacharya, Arundhati Misra
  Preprints, 2018
  DOI : 10.20944/preprints201807.0390.v1
- **Evaluation of full-polarimetric parameters for vegetation monitoring in rabi (winter) season**
  Haldar Dipanwita, Rucha Dave, Viral Dave
  The Egyptian Journal of Remote Sensing and Space Science 21 : S67-S73, 2018
  DOI : 10.1016/j.ejrs.2018.05.002
- **Crop monitoring and classification using multitemporal polarimetric SAR (RISAT-1) data forcotton and groundnut crops of Gujarat**
  Rucha Dave, Dipanwita Haldar, Viral Dave,K. Manjunath, Vyas Pandey
  J ournal of Agrometeorology 19 (Special Issue - AGMET 2016) :171-178, 2017 (IF : 0.557)
  Source : pdf
- **Cotton Crop Biophysical Parameter Study Using Hybrid/Compact Polarimetric RISAT-1 SAR Data**

Viral A. Dave, Dipanwita Haldar, Rucha Dave, Arundhati Misra, Vyas Pandey
Progress In Electromagnetics Research M, Vol. 57, 185-196, 2017 (IF : 2.949)
DOI : 10.2528/PIERM16121903

Conference :

- Evaluation of Tree Species Classification Methods using Multi-Temporal Satellite Images
  Saha Arnav, Srikumar Sastry, Viral A. Dave, and Ranendu Ghosh
  2020 IEEE Latin American GRSS ISPRS Remote Sensing Conference (LAGIRS), pp. 40-43. IEEE, 2020
  DOI : 10.5194/isprs-archives-XLII-3-W12-2020-79-2020
- Artificial Neural Network (ANN) based Soil Electrical Conductivity (SEC) prediction
  Megha Pandya, Viral Dave, Ranendu Ghosh
  2020 7th International Conference on Signal Processing and Integrated Networks (SPIN), pp. 581-586, 2020
  DOI : 10.1109/SPIN48934.2020.9071257
- An Assessment of the Desertification Vulnerability based on MEDALUS model
  Viral A. Dave, Megha Pandya, Ranendu Ghosh
  2019 International Conference on Intelligent Computing and Remote Sensing (ICICRS), pp. 1-6, 2019
  DOI : 10.1109/ICICRS46726.2019.9555853
- Fuzzy integrated desertification vulnerability model
  Viral A. Dave and Koyal Sur
  The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences , Volume XLII-5, 395-401, 2018
  DOI : 10.5194/isprs-archives-XLII-5-395-2018

Contribution in Book :

- Desertification and Land Degradation Atlas of India (Assessment and analysis of changes over 15 years based on remote sensing)
  Space Applications Centre, ISRO, Ahmedabad, 2021
  ISBN : 978-93-82760-39-9
- El Niño episodes and agricultural productivity in Gujarat
  Technical Bulletin, AAU, 2014
  URL : pdf

Conferences, Workshops & Seminars

2019	Paper presented at ”2019 International Conference on Intelligent Computing and Remote Sensing (ICICRS) organized by C. V. Raman College of Engineering, Bhubaneswar, INDIA in association with IEEE and GRSS during 19-20 July 2019.
2018	Paper presented at ”TROPMET-2018 National Symposium on Understanding Weather and Climate Variability : Research for Society organized by Indian Meteorological Society during 24 to 27 October, 2018 at Banaras Hindu University, Varanasi, Uttar Pradesh
2018	Paper presented at ”TC V Midterm Symposium - Geospatial Technology - Pixel to People” at IIRS, Dehradun, India during November 20-23, 2018
2016	Poster Presented at ”NATIONAL SYMPOSIUM on Recent Advances in Remote Sensing and GIS with Special Emphasis on Mountain Ecosystems” Organised by Indian Society of Remote Sensing and Indian Society of Geomatics during 7-9 December 2016 at IIRS, Dehradun.
2014	“NASA-ISRO Synthetic Aperture Radar (NISAR) Science Workshop” organized by SAC, Ahmedabad during 17-18 November 2014.
2014	Paper Presented at International Symposium on “New-Dimensions in Agrometeorology for Sustainable Agriculture(NASA-14)” held at G.B.Pant University of Agriculture & Technology, Pantnagar, India during October 16-18, 2014.
2014	Hands on training on “Microwave Remote Sensing and Data Processing” organized by Civil Engineering Department, Nirma University, GRSS IEEE Gujarat chapter ind Indian Society for Geomatic, Ahmedabad chapter during 16-21 June, 2014 at Institute of technology, Nirma University, Ahmedabad.
2010	IMS-A workshop on “Satellite Meteorology : 50 years journey” organized by Indian Meteorological Society – Ahmedabad chapter and hosted by Space Applications Centre, ISRO, Ahmedabad and Gujarat Science City, Ahmedabad on 29th October 2010.

Affiliations

Life member of

- Indian Society of Geomatics, Ahmedabad Chapter
- Indian Society of Remote Sensing
- Association of Agrometeorology, Anand

Research Project Mentoring

2020 Predictive Mapping of Soil Organic and Inorganic Carbon Stocks over DA-IICT Campus.
2020 Geometric and Radiometric Assessment of Sentinel-2A and Sentinel-2B sensors.
2019 Evaluation of tree species classification methods using multi-temporal satellite images.
2019 Hierarchical Land Use and Land Degradation Process Mapping - Assessment of Various Digital Techniques.
2018 Rainfall prediction for the state of Gujarat using deep learning technique.

References

Prof. Ranendu Ghosh
Registrar, DAIICT
@ ranendu_ghosh@daiict.ac.in
+687 987 654

Prof. Rucha Dave
Asst. Proffessor, AAU, Anand
@ rchdave1@gmail.com
+33 1 23 45 67 90

Dr. Dipanwita Haldar
Sci/Engi.-F, IIRS, ISRO-Dehradun
@ rchdave1@gmail.com
+33 1 23 45 67 90

Personal Detail

16 May 1988 | Maharashtra, India
D-404, Sagar Sangeet Heights,Near Nilgiri apartment, Sola Bhagwat, Ahmedabad, Gujarat 380060

Declaration : I hereby declare that the above-mentioned information is true to the best of my knowledge.

Viral A Dave
23 novembre 2022