

Papers in Peer-reviewed International Journals/Book chapter

2013

1. **Dwivedi, R.**, Dikshit, O., A Comparison of Particle swarm optimization and Genetic algorithm in second order design of GPS networks, *Journal of Applied Geodesy*, Vol. 7, 2013. [IF:0.83]

2016

2. Tiwari, A., **Dwivedi, R.**, Dikshit, O. and Singh, A. K., A study on measuring surface deformation of L'Aquila region using StaMPS technique, *International Journal of Remote Sensing*, Vol. 37(4), 2016. [IF: 2.976]
3. Singh, V., **Dwivedi, R.**, Dikshit, O. and Singh, A. K., First Order Design of GPS networks using particle swarm optimization, *ASCE Journal of surveying Engineering*, Vol. 142(3), 2016. [IF: 1.766]

2017

4. **Dwivedi, R.**, Narayan, A. B., Tiwari, A. Singh, A. K., and Dikshit, O., Optimal estimation of interferometric phase for measuring surface deformation, *International Journal of Remote Sensing*, Vol. 38(5), 2017. [IF: 2.976]

2018

5. Narayan, A. B., Tiwari, A. **Dwivedi, R.**, and Dikshit, O., Persistent Scatter Identification and Look-Angle Error Estimation Using Similar Time-Series Interferometric Pixels, *IEEE Geoscience and Remote Sensing Letters*, Vol. 15(1), 2018. [IF: 3.966]
6. Narayan, A. B., Tiwari, A. **Dwivedi, R.**, and Dikshit, O., A novel measure for categorization and optimal phase history retrieval of Distributed scatterers for InSAR applications, *IEEE Transaction on Geoscience and Remote Sensing*, Vol. 56(10), 2018. [IF: 8.5]
7. Maurya V.K., Devara M., and **Dwivedi, R.**, Surface deformation analysis of Sirobagarh landslide using Kalman Filter, *Emerging Technologies in Cartography, Journal of Indian National Cartographic Association (INCA)*, Vol. 38(2), 2018.

2020

8. Tiwari, A. Narayan, A. B., **Dwivedi, R.**, Dikshit, O. and Nagarajan, B., Monitoring of landslide activity at the Sirobagarh landslide, Uttarakhand, India using LiDAR, SAR Interferometry and geodetic surveys, *Geocarto International*, Vol. 35(5), 2018. [IF: 4.889]
9. Tiwari, A. Narayan, A. B., **Dwivedi, R.**, Swadesh, A., Pasari, S. and Dikshit, O. Geodetic investigation of landslides and land subsidence: case study of the Bhurkunda coal mines and the Sirobagarh landslide, *Survey Review*, Vol. 52(371), 2018. [IF: 1.745]

2021

10. Mohan, A., Singh, A., Kumar, B., **Dwivedi, R.**, Review on remote sensing methods for landslide detection using machine and deep learning, *Transactions on Emerging Telecommunications Technologies*, Vol 32(7), 2021. [IF: 2.638]
11. Devara M., Tiwari A., and **Dwivedi R.**, Landslide susceptibility mapping

using MT-InSAR and AHP enabled GIS-based multi-criteria decision analysis, *Geomatics, Natural Hazards and Risk*, Vol.12(1), 2021. [IF: 3.528]

12. Ullo L. S., Mohan A., Sebastianelli, A., Ahamed, S. E., Kumar, B., **Dwivedi R.**, and Sinha, G. R., A New Mask R-CNN Based Method for Improved Landslide Detection, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, Vol. 14, 2021. [IF: 3.784]
13. Mohan A., Anand, A., Singh, A. K., **Dwivedi, R.** and Kumar, B., Selective encryption and optimization-based watermarking for robust transmission of landslide images, *Computers and Electrical Engineering*, Vol. 95, 2021. [IF: 3.818]
14. Devara M., Maurya V.K., Tiwari A., and **Dwivedi R.**, A multi-criteria landslide susceptibility mapping using deep multi-layer perceptron network: A case study of Srinagar, Rudraprayag region, Uttarakhand, *Advance in Space Research*, Vol. 69(4), 2021. [IF: 2.6]

2022

15. Maurya, V.K., **Dwivedi, R.** and Martha, T. R., Site scale deformation and strain analysis using MT-InSAR and GNSS approach, *Advance in Space Research*, Vol. 70 (12), 2022. [IF: 2.6]

2023

16. Saxena, S. and **Dwivedi, R.**, An ERA5 based local modelling of weighted mean temperature over hilly region in India for improved spatiotemporal analysis of extreme weather event using GNSS PWV, *Advance in Space Research*, Volume 72, Issue 8, 3022-3036, 2023. [IF: 2.6]
17. Saxena, S. and Dwivedi, R., GNSS ground-based tomography: state-of-the-art and technological challenges, *International Journal of Remote Sensing*, Vol. 44(17), 5313-5343, 2023. [IF: 2.976]

2024

18. Meghanadh D., Maurya, V. K., & **Dwivedi, R.**, Landslide extraction using a novel empirical method and binary semantic segmentation U-NET framework using sentinel-2 imagery, *Remote Sensing Letters*, 15:3, 326-338, 2024. [IF: 2.4]
19. Maurya, V.K., **Dwivedi, R.** Meghanadh D., Martha, T. R., and Roy P., A Novel Approach for most Vulnerable zone Identification Using MT-InSAR and Machine Learning: A Case Study from Lesser Himalayan Region, *Journal of Indian Society for Remote Sensing*, 53, 1549-1564, 2024. [IF: 2.2]

2025

20. Kumar, A., Maurya, V. K., & **Dwivedi, R.**, Investigating the efficacy of KTH and GRAVSOFT method for geoid modelling in the Indian region, *Survey Review*, 1-14, 2025. [IF: 1.5].
21. Shailja, Yadav M. and **Dwivedi R.**, Building Segmentation in High-Resolution Aerial Imagery Using Attention U-Net Frameworks with Varying Feature Extractors: A Performance Assessment, *Advances in Space Research*, 2025 (Accepted)

Book Chapter(s)

1. Mohan A., **Dwivedi R.**, Kumar B., Image Restoration of Landslide Photographs Using SRCNN. In: Dhawan A., Tripathi V.S., Arya K.V., Naik K. (eds) Recent Trends in Electronics and Communication. Lecture Notes in Electrical Engineering, Vol 777, 2022, Springer, Singapore.
2. Meghanadh D., Dwivedi R., Multi-Temporal SAR Interferometry: Theory, Processing and Applications, In: Kumar, S., Siqueira, P., Govil, H., Agrawal, H. (eds), Spaceborne Synthetic Aperture Radar Remote Sensing: Techniques and Applications, 2023, CRC Press.
3. Mohan, A., Dwivedi, R., Kumar, B., IoT for Landslides: Applications, Technologies and Challenges. In: Rai, A., Kumar Singh, D., Sehgal, A., Cengiz, K. (eds) Paradigms of Smart and Intelligent Communication, 5G and Beyond. Transactions on Computer Systems and Networks, 2023, Springer, Singapore.

Key papers/abstract in peer-reviewed International Conference/Workshops proceedings

1. Dwivedi, R., Varshney, P., Tiwari, A., Singh, A. K., and Dikshit, O., Assessment of slope stability using PS-InSAR technique, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XL-8, 35–38, 2014.
2. Tiwari, A., Dwivedi, R., Narayan, A. B., Dikshit, O., and Singh, A. K., Efficacy of StaMPS technique for monitoring surface deformation in L'Aquila, Italy, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XL-8, 141–145, 2014.
3. Dwivedi, R., Varshney, P., Tiwari, A., Narayan, A.B., Singh, A. K., Dikshit, O., and Pallav, K. (2015), Monitoring of landslides in Nainital, Uttarakhand, India: Validation of PS-InSAR results, 2015 Joint Urban Remote Sensing Event (JURSE), Lausanne, Switzerland, 2015, 1-4, 2015.
4. Dwivedi, R., Narayan, A. B., Tiwari, A., Dikshit, O., and Singh, A. K., Multi-temporal SAR Interferometry for landslide monitoring, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLI-B8, 55–58, 2016.
5. Pandey, D., Dwivedi, R., Dikshit, O., and Singh, A. K., GPS and GLONASS combined static Precise Point Positioning (PPP), Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLI-B1, 483–488, 2016.
6. Tiwari, A., Narayan, A. B., Devara, M., Dwivedi, R., and Dikshit, O.: Multi-sensor geodetic approach for landslide detection and monitoring, ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci., IV-5, 287–292, 2018.
7. Narayan, A. B., Tiwari, A., Devara, M., Dwivedi, R., and Dikshit, O., Monitoring landslides in the Mussoorie region, Uttarakhand using multi-temporal SAR Interferometry with SENTINEL-1 images, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-5, 849–853, 2018.
8. Tiwari, A., Narayan, A. B., Devara, M., Dwivedi, R., and Dikshit, O., Multi-sensor geodetic approach for landslide detection and monitoring, ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci., IV-5, 287–292, 2018.
9. Meghanadh, D., Tiwari, A. and Dwivedi, R., Multi-criteria analysis for landslide

inventory mapping using PS-InSAR, *2019 IEEE Recent Advances in Geoscience and Remote Sensing : Technologies, Standards and Applications (TENGARSS)*, Kochi, India, 2019, 30-33, 2019.

10. Meghanadh, D., Jaiswal, A. K., Maurya, V. K. and Dwivedi, R., Rapid flood mapping using SENTINEL-1A images: A case study of flood in Panamaram, Kerala, *IGARSS 2020 - 2020 IEEE International Geoscience and Remote Sensing Symposium*, Waikoloa, HI, USA, 2020, 6883-6885, 2020.
11. Singh, P., Maurya, V., and Dwivedi, R., Pixel based landslide identification using Landsat 8 and GEE, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLIII-B3-2021, 721-726, 2021.
12. Meghanadh, D., Maurya, V. K., Kumar, M., and Dwivedi, R., Automatic Detection of Landslides Based on Machine Learning Framework, *2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS*, Brussels, Belgium, 2021, 8460-8463, 2021.
13. Meghanadh, D., Bharti, K., Maurya, V. K., and Dwivedi, R., Identification of Potential Sites for Harvesting Rainwater Using Geospatial Techniques, *IGARSS 2022 - 2022 IEEE International Geoscience and Remote Sensing Symposium*, Kuala Lumpur, Malaysia, 2022, 6364-6367, 2022.
14. Meghanadh, D., M. V. Vishwajit, V., and Dwivedi, R., GIS Based Landslide Susceptibility Mapping Using Analytic Hierarchy Process (AHP) for Uttarakhand, India, *IGARSS 2022 - 2022 IEEE International Geoscience and Remote Sensing Symposium*, Kuala Lumpur, Malaysia, 2022, 4627-4630, 2022.
15. Shailja, Dwivedi R. and Yadav M., Building detection in aerial images using fusion of U-Net and ResNet architectures, *14th International Conference on Computing Communication and Networking Technologies (ICCCNT)*, Delhi, India, 2023, pp. 1-6.
16. Saxena S. and Dwivedi R., Leveraging multi-source earth observations for high resolution mapping of Precipitable Water Vapor, *2023 IEEE India Geoscience and Remote Sensing Symposium (InGARSS)*, Bangalore, India, 2023, pp. 1-4.
17. Maurya V. K., Shukla S., Mitra S. and Dwivedi R., Investigating Jharia Coalfields using SAR Interferometry, *2023 IEEE India Geoscience and Remote Sensing Symposium (InGARSS)*, Bangalore, India, 2023, pp. 1-4.
18. Shukla S., Maurya V. K. and Dwivedi R., Comparative Analysis of PWV Using Gamit and Pride PPP-AR, *2023 IEEE India Geoscience and Remote Sensing Symposium (InGARSS)*, Bangalore, India, 2023, pp. 1-4.
19. Saxena, S., Ojha, C., and Dwivedi, R., Establishing Zenith Wet Delay model (ZWD) and developing a framework for generating high resolution PWV for extreme weather monitoring using MT-InSAR and GNSS for Indian Himalayan region, *EGU General Assembly 2024*, Vienna, Austria, 14-19 Apr 2024, EGU24-1091, <https://doi.org/10.5194/egusphere-egu24-1091>, 2024.
20. Kumar, A., Maurya, V., and Dwivedi, R., Sensitivity Analysis of Digital Elevation Models in Geoid Modelling for Indian region, *EGU General Assembly 2024*, Vienna, Austria, 14-19 Apr 2024, EGU24-1087, <https://doi.org/10.5194/egusphere-egu24-1087>, 2024.

21. Kumar, A., Maurya, V., and Dwivedi, R., Investigating the Efficacy of Global Digital Elevation Models in Regional Geoid Modelling for the Indian Region, 2024 IEEE India Geoscience and Remote Sensing Symposium (InGARSS), Goa, India, 2024, pp. 1-4, doi: 10.1109/InGARSS61818.2024.10984082.
22. Mitra S., Maurya V. K. and Dwivedi R., Interferometric Analysis of Ground Deformation and Seismic Activity Associated with 2017 Ischia Earthquake, 2024 IEEE India Geoscience and Remote Sensing Symposium (InGARSS), Goa, India, 2024, pp. 1-4, doi: 10.1109/InGARSS61818.2024.10984195.