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Publication

INTERNATIONAL JOURNALS

- 1) **Vijay Pratap Yadav**, R. Prasad, R. Bala (2021). Leaf area index estimation of wheat crop using modified water cloud model from the time-series SAR and optical satellite data. *Geocarto International*, 36:7, 791-802.
- 2) **Vijay Pratap Yadav**, R. Prasad, R. Bala, A. K. Vishwakarma (2019). ‘An improved inversion algorithm for spatio-temporal retrieval of soil moisture through modified water cloud model using C- band Sentinel -1A SAR data.’ *Computers & Electronics in Agriculture* 173 (2020): 105447.
- 3) **Vijay Pratap Yadav**, Rajendra Prasad, Ruchi Bala & Prashant K. Srivastava (2021). ‘Assessment of red-edge vegetation descriptors in a modified watercloud model for forward modelling using Sentinel – 1A and Sentinel – 2 satellite data.’ *International Journal of Remote Sensing*, 42:3, 794-804, DOI: 10.1080/2150704X.2020.1823035.
- 4) **Vijay Pratap Yadav**, R. Prasad, R. Bala, Prashant K. Srivastava (2022). ‘Synergy of Vegetation and Soil Microwave Scattering Model for Leaf Area Index Retrieval Using C-Band Sentinel-1A Satellite Data’. *IEEE Geoscience and Remote Sensing Letters*, vol. 19, pp. 1-5, Art no. 4004605.
- 5) **Vijay Pratap Yadav**, R. Prasad, R. Bala, Prashant K. Srivastava (2021). ‘Appraisal of dual polarimetric radar vegetation index in first order microwave scattering algorithm using Sentinel - 1A (C - band) and ALOS - 2 (L - band) SAR data.’ *Geocarto International*, DOI: [10.1080/10106049.2021.1933209](https://doi.org/10.1080/10106049.2021.1933209)
- 6) Bala, Ruchi, Rajendra Prasad, and **Vijay Pratap Yadav** (2020). “Thermal sharpening of MODIS land surface temperature using statistical downscaling technique in urban areas.” *Theoretical and Applied Climatology*, 141, 935–946, <https://doi.org/10.1007/s00704-020-03253-w>.
- 7) Bala, Ruchi, Rajendra Prasad, and **Vijay Pratap Yadav** (2019). "Disaggregation of Modis land surface temperature in urban areas using improved thermal sharpening techniques." *Advances in Space Research*, Volume 64, Issue 3.
- 8) Kumar, P., Prasad, R., Gupta, D.K., Mishra, V.N., Vishwakarma, A.K., **Yadav, V.P.**, Bala, R., Choudhary, A. and Avtar, R., (2018). Estimation of winter wheat crop growth parameters using time series Sentinel-1A SAR data. *Geocarto international*, 33(9),

pp.942-956.

- 9) Bala, Ruchi, Rajendra Prasad, and **Vijay Pratap Yadav** (2020). "A Comparative analysis of day and night Land Surface Temperature in two semi-arid cities using satellite images sampled in different seasons." *Advances in Space Research*, Volume 66, 412-425 doi.org/10.1016/j.asr.2020.04.009.
- 10) Bala, Ruchi, Rajendra Prasad, and **Vijay Pratap Yadav** (2021). "Quantification of urban heat intensity with land use/land cover changes using Landsat satellite data over urban landscapes" *Theoretical and Applied Climatology* 145, 1–12.
- 11) Jyoti Sharma, Rajendra Prasad, Prashant K. Srivastava, Shubham K. Singh, Suraj A. Yadav, **Vijay Pratap Yadav** (2021), "Roughness characterization and disaggregation of coarse resolution SMAP soil moisture using single-channel algorithm," *J. Appl. Remote Sensing*. 15(1), 014514, <https://doi.org/10.1117/1.JRS.15.014514>.
- 12) J. Sharma, R. Prasad, P. K. Srivastava, S. A. Yadav and **V. P. Yadav** (2022), "Improving Spatial Representation of Soil Moisture Through the Incorporation of Single-Channel Algorithm With Different Downscaling Approaches," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 60, pp. 1-10, Art no. 5302710, doi: 10.1109/TGRS.2022.3144830.
- 13) Yadav, Suraj A., Rajendra Prasad, **Vijay P. Yadav**, Bhagyashree Verma, Shubham K. Singh, Jyoti Sharma, and Prashant K. Srivastava (2022). "Far-field bistatic scattering simulation for rice crop biophysical parameters retrieval using modified radiative transfer model at X-and C-band." *Remote Sensing of Environment* 272: 112959.
- 14) Shubham Kumar Singh, Rajendra Prasad, **Vijay Pratap Yadav**, Suraj A. Yadav, Jyoti Sharma & Prashant K Srivastava (2022) "Synergy of dual – polarimetric radar vegetation descriptor and Gaussian processes regression algorithm for estimation of leaf area index", *International Journal of Remote Sensing*, 43:19-24, 6921-6935.
- 15) Bala, R., **Yadav, V.P.**, Kumar, D.N. et al. 'Assessment of surface energy fluxes relation with land cover parameters in four distinct Indian cities using remote sensing data'. *Theoretical and Applied Climatology* (2023). <https://doi.org/10.1007/s00704-023-04791-9>.
- 16) Bala R., **Yadav V. P.**, Kumara D. Nagesh., Prasad R., (2023), 'Quantification of Surface Urban Heat Island Intensity using MODIS satellite imagery in different Indian cities'. *Journal of the Indian Society of Remote Sensing*. (Accepted).

International CONFERENCE PAPERS

- 1) **Yadav, Vijay Pratap**, Rajendra Prasad, Ruchi Bala, A. K. Vishwakarma, and S. A. Yadav (2018). "Estimation of biophysical parameters of wheat crop through modified water cloud model using satellite data." *ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences*, vol. - 4, no. 5.
- 2) **Yadav, Vijay Pratap**, Rajendra Prasad, Ruchi Bala, and Ajeet Kumar Vishwakarma. "An Improved Multi-Index Model for Estimation of Surface Soil Moisture Using Landsat-8 Satellite Data." In *2019 URSI Asia-Pacific Radio Science Conference (AP-RASC)*, **IEEE**, 2019, DOI: 10.23919/URSIAP-RASC.2019.8738399.
- 3) **Yadav, Vijay Pratap**, Rajendra Prasad, Ruchi Bala, A. K. Vishwakarma (2019). "Estimation of soil moisture through water cloud model using sentinel -1A SAR data." 978-1-5386-9154-0/19/\$31.00 ©2019 **IEEE (IGARSS 2019)**, pp. 6961 – 6964.
- 4) **Yadav, Vijay Pratap**, Rajendra Prasad, Ruchi Bala, A. K. Vishwakarma, S. A. Yadav, S. K. Singh (2019). "A comparison of machine-learning regression algorithms for the estimation of LAI using LANDSAT - 8 satellite data." *International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences*.
- 5) Ruchi Bala, Prasad R., **Yadav V. P.**, Sharma J. 2018. "A Comparative Study of Land Surface Temperature with Different Indices on Heterogeneous Land Cover using Landsat 8 Data." *Int.Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-5: 389-394.
- 6) Ruchi Bala, Rajendra Prasad, **Vijay Pratap Yadav**. "Evaluation of Day and Night Land Surface Temperature with Impervious Surface using Modis Satellite Data." In 2019 URSI Asia-Pacific Radio Science Conference (AP-RASC), **IEEE**, 2019, DOI: 10.23919/URSIAP-RASC.2019.8738689.
- 7) J. Sharma, R. Prasad, V. N. Mishra, **V. P. Yadav**, and R. Bala. 2018. "Land use and land cover classification of multispectral landsat-8 satellite imagery using discrete wavelet transform." *Int.Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-5: 703-706.
- 8) S. A. Yadav, R. Prasad, A. K. Vishwakarma, and **V. P. Yadav**. 2018. "Random forest regression for the estimation of leaf area index of okra crop using ground based bistatic scatterometer." *Int.Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-5: 719-725.
- 9) R. Bala, **V. P. Yadav** and R. Prasad, "Seasonal Variation of Day and Night Land Surface Temperature with Normalized Difference Vegetation Index using MODIS Satellite Imagery," 2020 URSI Regional Conference on Radio Science (URSI - RCRS), Varanasi, India, **IEEE**, 2020, pp. 1-4, DOI: 10.23919/URSIRCRS49211.2020.9113425.
- 10) Bala, Ruchi, Rajendra Prasad, **Vijay Pratap Yadav**, and Jyoti Sharma. "Spatial variation of urban heat island intensity in urban cities using modis satellite data." International Society for Photogrammetry and Remote Sensing, 2019. <http://localhost:8080/xmlui/handle/123456789/1190>.

- 11) **V. P. Yadav**, R. Bala, R. Prasad and S. K. Singh, "Assessment of dual polarimetric radar vegetation descriptor in modified water cloud model for retrieval of leaf area index using Sentinel -1 (C-band) satellite data," *2022 URSI Regional Conference on Radio Science (USRI-RCRS)*, Indore, India, 2022, pp. 1-4, doi: 10.23919/URSI-RCRS56822.2022.10118519.
- 12) R. Bala, **V. P. Yadav**, D. N. Kumar and R. Prasad, "Assessment of Surface Energy Fluxes variation with Land Cover Parameters using LandSat Satellite data," *2022 URSI Regional Conference on Radio Science (USRI-RCRS)*, Indore, India, 2022, pp. 1-4, doi: 10.23919/URSI-RCRS56822.2022.10118439.

FACULTY DEVELOPMENT PROGRAMME (FDP)

1. Professional Development Programme on 'Implementation of NEP-2020 for University and College Teachers' held from 21-29 September, 2022, **Indira Gandhi National Open University (IGNOU), New Delhi**
2. Participated in the AICTE Training And Learning (ATAL) academy FDP on "Hyper – spectral remote sensing and its applications" from 06/09/2021 to 10/09/2021 at **CMR Institute of Technology, Bengaluru**
3. **NASA applied remote sensing training program** for "Agricultural Crop Classification with Synthetic Aperture Radar and Optical Remote Sensing" from October 05 to October 19, 2021.
4. Participated in the AICTE Training And Learning (ATAL) academy FDP on "Astronomy & Astrophysics - Elementary" from 21/02/2022 to 25/02/2022 at **Regional Science Centre and Planetarium, Calicut.**
5. Participated in the TCS sponsored FDP on "Emerging Trends and Advances in Computational Intelligence (ETACi - 2022)" from 28/02/2022 to 05/03/2022 at **Department of information Technology, BBDITM, Lucknow**

WORKSHOPS AND CONFERENCES ATTENDED

1. CONFERENCES

1. 6th International conference Geomatics & Geospatial Technology (GGT - 2019) during 1 -3 October 2019, **Kuala Lumpur, Malaysia.**
2. 39th IEEE International Geoscience and Remote Sensing Symposium (IGARSS) during July 28 – August 2, 2019, **Yokohama, Japan.**
3. 2019 International Union of Radio Science (URSI) Asia-Pacific Radio Science Conference (AP-RASC) during March 09 -15, 2019, **India Habitat Centre, New Delhi, India.**
4. International Society for Photogrammetry and Remote Sensing (ISPRS) Technical Commission - V Symposium during November 20 - 23, 2018, **IIRS (ISRO), Dehradun,**
5. 2nd IEEE International conference on Engineering Science & Advance Research (ESAR) during 23 – 24 February, 2018, **Rama University, Kanpur, India.**
6. International Tropical Meteorology Symposium (INTROMET - 2017) during 07 – 10 November, 2017, **SAC (ISRO), Ahmedabad, India.**
7. 2020 URSI Regional Conference on Radio Science (URSI-RCRS 2020) during 12-14 February, 2020, **IIT (BHU) Varanasi, India.**
8. 5th URSI Regional Conference on Radio Science (URSI-RCRS 2022) during 01-04 November, 2022, **IIT Indore, India**

ACHIEVEMENTS

- 1) International Travel Grants (ITS) award for Japan by Department of Science and Technology (SERB), New Delhi under **Young Scientist** category (2019)
- 2) **Senior Member (Radio Scientist)** of International Union of Radio Science (URSI), Ghent, Belgium

JOURNAL REVIEWER

- Remote Sensing of Environment; Science of Total Environment; International Journal of Remote Sensing; Hydrology Research; Remote Sensing Letters; IEEE Trans. on Journal of Selected Topics in Applied Earth Observations and Remote Sensing (IEEE-JSTARS); IEEE Transaction of Geosciences and Remote Sensing; IEEE Sensors; MDPI Remote Sensing; MDPI Sensors; Environmental Earth Sciences; Journal of Applied Remote Sensing; Monitoring and Assessment; Geocarto International and Several others
