

BIO – DATA

1. **NAME** : Dr. Shwetank
2. **FATHER’S NAME** : Dr. Ved Prakash
3. **MOTHER’S NAME** : Smt. Shyam Kumari
4. **DATE OF BIRTH** : 25-09-1979
5. **MARITAL STATUS** : Married
6. **POSTAL/ PERMANENT ADDRESS :** House No. 8, Pragativihar, Jagjeetpur, Haridwar
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7. **DEPARTMENTAL ADDRESS** : Dr. Shwetank
Asst. Professor (Level-12),
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8. Administrative and Professional Experience:

- Deputy Registrar (Officiating), Gurukula Kangri (Deemed to be University), Haridwar since December-2025 to till today.
- In Charge, Legal Cell, Gurukula Kangri (Deemed to be University), Haridwar, since August-2020 to Oct 2022.
- Joint Registrar (Officiating), Gurukula Kangri (Deemed to be University), Haridwar since January-2021 to 31 March 2022.
- Coordinator Activity Centre, Electronics & ICT Academy, Ministry of Electronics and Information Technology, Government of India, Department of Computer Science, Gurukula Kangri (Deemed to be University), Haridwar.
- Coordinator IIRS Outreach Programme Department of Computer Science, Gurukula Kangri (Deemed to be University), Haridwar.
- Coordinator ORACLE IT Academy, Department of Computer Science, Gurukula Kangri (Deemed to be University), Haridwar.
- Worked as Nodal Officer (IT/Call Centre), Parliament and Uttarakhand Assembly Elections-2016, 2019, 2021.
- Working as a member of University Website Development Committee since 2011 to at present.
- Looking placement activities of MCA students, since 2011 as a member of CACO, Faculty of Technology.
- Worked as Program Officer under National Service Scheme (Unit-2), Gurukula Kangri (Deemed to be University) Haridwar from August, 2011 to September, 2014.

9. EDUCATIONAL QUALIFICATIONS:

- Ph. D. (Computer Science), 2011, Gurukula Kangri (Deemed to be University), Haridwar (UK)
- M.C.A, 2002, Gurukula Kangri (Deemed to be University), Haridwar (UK).
- B. Sc., 1999, Gurukula Kangri (Deemed to be University), Haridwar (UK).
- Intermediate (PCM Group), 1996, U. P. Board, Allahabad.
- High School (Sc. Group), 1994, U. P. Board, Allahabad.

10. AREA OF SPECIALIZATION/ FIELD OF RESEARCH:

- AI, RS and GIS and Image Processing

11. EMPLOYMENT RECORD:

- Working as Assistant Professor (Stage-II, Level-12) in Department of Computer Science, Faculty of Science, Gurukula Kangri (Deemed to be University), Haridwar (UK).

12. TEACHING & RESEARCH EXPERIENCE:

- **Research Project** : 4
 - (a) Development of AIDSS to Minimize the use of BGM Sensors for Type 1 Diabetes in Himalayan and Foothill Regions funded by UCOST, Dehradun (Rs. 3 Lakh).
 - (b) An intelligent computational model for crowd demonstration and risk analysis during spiritual events in Haridwar funded by UCOST, Dehradun (Rs. 4.79 Lakh).
 - (c) E-waste Management for Uttarakhand funded by UCOST, Dehradun (Rs.8.50 Lakh).
 - (d) Social Media Optimization for E-Waste Management funded by UCOST, Dehradun (1 Lakh).
- **Ph. D. Guided/Supervised** : 5
 - (a) Hyperspectral Image Analysis for Face Recognition.
 - (b) Analysis and Design of Biometric System based on Spectral System.
 - (c) Development of GeoHybrid Intelligent Model using Soft Computing, GIS and Remote Sensing.
 - (d) Geographic Feature Extraction and Analysis using Geoinformatic Techniques.
 - (e) An Intelligent Computational Model for Crowd Management.
- **Ph. D. Enrolled** : 2
 - (a) An Artificial Intelligence based Model to Identify Khadi Cloth.
 - (b) Development of Efficient Artificial Intelligent based Decision Support System for Diabetic Patients.
- **Patent (Published)** : 1
 - (a) A system for real-time crowd monitoring, analysis and management through AI (File No. 202311018633).
- **Registration of Design** : 4
 - (a) “Macro imaging device for smartphones (File No. 414544-001)”.
 - (b) “IoT based smart trolley for LPG gas monitoring (File No. 408917-001)”.
 - (c) “IoT based smart dustbin management system (File No. 410141-001)”.

- **Paper Reviewer** : 1

(a) Research Journal “**Journal of Scientific and Industrial Research (JSIR)**” published by CSIR-NISCP, New Delhi.

13. WORKSHOP/CONFERENCE ORGANIZED:

- Two days National Conference (2022) on “**E-Waste Management: Challenges and Opportunities**”, organized by Department of Computer Science, Gurukula Kangri (Deemed to be University), Haridwar funded by UCOST, Dehradun.
- दो दिवसीय राष्ट्रीय सम्मेलन (२०२०), कोविड-१९ में वेद विज्ञान एवं प्रौद्योगिकी की प्रासंगिकता, आयोजक कंप्यूटर विज्ञान विभाग, गुरुकुल काँगड़ी (सम-विश्वविद्यालय) हरिद्वार-२०२०।
- Two days National Workshop (2019) on **Business Analytics using Python**, organized by Department of Computer Science, Gurukula Kangri (Deemed to be University), Haridwar funded by UCOST, Dehradun.
- Two days National Workshop (2019) on **WordPress and SEO** organized by Department of Computer Science, Gurukula Kangri (Deemed to be University), Haridwar funded by UCOST, Dehradun.

14. RESEARCH PAPERS PUBLISHED IN JOURNALS (SCI/SCOPUS/UGC-CARE): 20

- Dinesh Rai, Rashmi Saini, Sudhir Kumar, Shwetank Arya, Jacob Noble, Dharmaveer Singh, Stable isotopic characterization and estimation of canal recharge to the groundwater in a part of the Ganga Plain, North India, Journal of Hydrology, Volume 655, 2025, 132962, ISSN 0022-1694, <https://doi.org/10.1016/j.jhydrol.2025.132962> . (IF-6.3)
- Amrish Thakur and Shwetank Arya, 2024, Comparative analysis of manual and annotations for crowd assessment and classification using artificial intelligence, Data Science and Management, Vol. 7, Issue-4, <https://doi.org/10.1016/j.dsm.2024.04.001>.
- Amrish, Arya, S. & Kumar, S. Convolutional neural network for human crowd analysis: a review (2023). Multimedia Tools Applications. <https://doi.org/10.1007/s11042-023-16841-5>. (IF-3.6)
- Saurabh Kumar and Shwetank, (2023), Change Detection Analysis of Land Cover Features using Support Vector Machine Classifier, International Journal of Next-Generation Computing, Vol. 14 Issue 2, pp 462-472. <https://doi.org/10.47164/ijngc.v14i2.384>.
- Amrish and Shwetank, (2022), HRD-GKV-CCNet: A Deep Learning-based Multitask Method for Human Crowd Management, 2nd International Conference on Emerging Smart Technologies and Applications (eSmarTA). <https://doi.org/10.1109/eSmarTA56775.2022.9935448>
- Shwetank Arya Deepika Dimri, Devi Prasad Uniyal, Durgesh Pant, Rajendra Dobhal, Manmohan Singh Rawat, Brijmohan Sharma, (2022), Electronic-Waste (E-Waste) Management and Minimization Practices: A Case Study of Dehradun District (Western

Himalayan Region), Uttarakhand, India, Journal of Mountain Research 17(2).
<https://doi.org/10.51220/jmr.v17i2.5> .

- Shwetank, Suhas, & Chaudhary, J. K. (2022), Hybridization of ANFIS and fuzzy logic for groundwater quality assessment. Groundwater for Sustainable Development, <http://doi.org/10.1016/j.gsd.2022.100777>. (IF-5.9)
- Kumar, S., Arya, S. & Jain, K. (2021), A SWIR-based vegetation index for change detection in land cover using multi-temporal Landsat satellite dataset, International Journal of Information Technology, <https://doi.org/10.1007/s41870-021-00797-6>.
- Kumar, S. & Arya, S. (2021), Change Detection Techniques for Land Cover Change Analysis Using Spatial Datasets: a Review, Remote Sensing in Earth Systems Sciences, 4, 172–185, <https://doi.org/10.1007/s41976-021-00056-z>
- Kumar, S., Arya, S. & Jain, K. (2021), Development of Spectral Signature of Land Cover and Feature Extraction using Artificial Neural Network Model, International Conference on Computing, Communication, and Intelligent Systems (ICCCIS), <http://doi.org/10.1109/ICCCIS51004.2021.9397172>
- Pratap, N. & Shwetank (2020), Development of spectral signatures and classification using hyperspectral face recognition, Journal of Interdisciplinary Mathematics. 24 (2), 453-462. <http://doi.org/10.1080/09720502.2020.1731957>
- Shwetank, Suhas and Chaudhary, J. K. (2020), A Comparative Study of Fuzzy Logic and WQI for Groundwater Quality Assessment, Procedia Computer Science, 171, 1194-1203. <http://doi.org/10.1016/j.procs.2020.04.128>
- Sharma, A., Arya, S., & Chaturvedi, P. (2020), A Novel Image Compression Based Method for Multispectral Fingerprint Biometric System, Procedia Computer Science, 171, 1698-1707. <http://doi.org/10.1016/j.procs.2020.04.182>
- Kumar, S., Shwetank & Jain, K. (2020), A Multi-Temporal Landsat Data Analysis for Land-use/Land-cover Change in Haridwar Region using Remote Sensing Techniques, Procedia Computer Science, 171, 2020, Pages 1184-1193. <https://doi.org/10.1016/j.procs.2020.04.127>
- Shwetank, Suhas and Chaudhary, J. K. (2019), Estimation of groundwater contamination using fuzzy logic: A case study of Haridwar, India, Groundwater for Sustainable Development, 8, 644-653. <https://doi.org/10.1016/j.gsd.2019.03.004>. (IF-5.9)
- Shwetank, Neeraj, Jitendra, Vikesh & Jain, K. (2018), Pixel Based Supervised Classification of Hyperspectral Face Images for Face Recognition, Procedia Computer Science, 132, 706-717. <https://doi.org/10.1016/j.procs.2018.05.077>
- Neeraj Pratap, Shwetank Arya and Vikesh Kumar, 2017, Feature extraction of hyperspectral face images using PCA in NIR, Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), 2017, Page 119-122

- Shwetank , Suhas, Chaudhary, J. & Kushwaha, S. (2017), Role of Fuzzy logic in drinking ground water assessment, NISCAIR-CSIR, Bharatiya Vaigyanik evam Audyogik Anusandhan Patrika (BVAAP), 25(1&2), 38-42. <http://nopr.niscair.res.in/handle/123456789/43504>
- Arya, S., Pratap, N., & Bhatia, K. (2015), Future of Face Recognition: A Review, Procedia Computer Science, 58, 578-585. <http://doi.org/10.1016/j.procs.2015.08.076>
- Shwetank, Jain, K. & Bhatia, K. (2010), Hyperspectral Data Compression Model Using SPCA (Segmented Principal Component Analysis) and Classification of Rice Crop Varieties. In:, et al. Contemporary Computing. IC3 2010. Communications in Computer and Information Science, vol 94. Springer, Berlin, Heidelberg, 360-372. https://doi.org/10.1007/978-3-642-14834-7_34

15. RESEARCH PAPERS PRESENTED CONFERENCES/ SEMINARS:	16
16. CONFERENCES/ SEMINARS/ WORKSHOPS ATTENDED:	23
17. ORIENTATION/REFRESHER COURSE ATTENDED/FDP:	07
18. SHORT TERM COURSES ATTENDED:	09
19. INVITED LECTURES/ KEY NOTE ADDRESSES:	08

(SHWETANK)