

Praveen Kumar Singh

CoEDMM, Indian Institute of Technology Roorkee, Roorkee 247667, Uttarakhand, India;
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EDUCATION

Ph.D. in Disaster Mitigation and Management January 2017–present	Indian Institute of Technology Roorkee, Roorkee, India 247667 <i>Dissertation:</i> Impact of air pollution on the Hindu Kush Himalayan glaciers
M.Sc. in Environmental Science 2014–2016	Central University of Rajasthan, Ajmer, India 305811 <i>Dissertation:</i> Methane emission and its variability in the different land–uses of the semi-arid region
B.Tech. in Electronics & Communication Engineering 2007–2011	Gautam Buddh Technical University, Lucknow, India 226031

RESEARCH

SSA–Cryosphere and Atmosphere January 2020–December 2020	International Centre for Integrated Mountain Development, Kathmandu, Nepal, GPO Box 3226
Ph.D. Fellow May 2018–December 2019	International Centre for Integrated Mountain Development, Kathmandu, Nepal, GPO Box 3226
Summer Intern May–July 2015	Physical Research Laboratory, Ahmedabad, India 380009

PROFESSIONAL DEVELOPMENT

Post Graduate Diploma in Environmental Law and Policy March 2022	CEL, WWF–India and National Law University, Delhi
Introduction to Environmental Law and Policy August 2020	The University of North Carolina at Chapel Hill offered through Coursera

PROFESSIONAL WORK

Telecom Engineer May–November 2012	Agate Infosoft Pvt. Ltd., Noida, India 201303
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PUBLICATIONS

Sherpa, T. C., Matthews, T., Perry, L. B., Thapa, A., **Singh, P. K.**, Khadka, A., Koch, I., Pelto, M., Panday, P., Aryal, D., Shrestha, D., Kang, S., & Mayewski, P. A. (2023). Insights from the first winter weather observations near Mount Everest's summit. *Weather*, 1–5.

Saikia, A., Pathak, B., **Singh, P. K.**, Bhuyan, P. K., & Adhikary, B. (2023). Decadal Changes in Atmospheric Methane Emissions in the Eastern Himalayan Region: Source Apportionment and Impact Assessment. *International Journal of Environmental Research*, 17(1), 10.

Singh, P. K., Adhikary, B., Chen, X., Kang, S., Poudel, S. P., Tashi, T., Goswami, A., & Puppala, S. P. (2023). Variability of ambient black carbon concentration in the Central Himalaya and its assessment over the Hindu Kush Himalayan region. *Science of The Total Environment*, 858(May 2022), 160137.

Upadhyay, A., Mahapatra, P. S., **Singh, P. K.**, Dahal, S., Pokhrel, S., Bhujel, A., Joshi, I. B., Paudel, S. P., Puppala, S. P., & Adhikary, B. (2022). Learnings from COVID-19 Forced Lockdown on Regional Air Quality and Mitigation Potential for South Asia. *Aerosol and Air Quality Research*, 22, 210376.

Srivastava, P., Namdev, P., & **Singh, P. K.** (2022). 7 February Chamoli (Uttarakhand, India) Rock-Ice Avalanche Disaster: Model-Simulated Prevailing Meteorological Conditions. *Atmosphere*, 13(2), 267.

Potocki, M., Mayewski, P. A., Matthews, T., Perry, L. B., Schwikowski, M., Tait, A. M., Korotkikh, E., Clifford, H., Kang, S., Sherpa, T. C., **Singh, P. K.**, Koch, I., & Birkel, S. (2022). Mt. Everest's highest glacier is a sentinel for accelerating ice loss. *Npj Climate and Atmospheric Science*, 5(1), 7.

Clifford, H. M., Potocki, M., Koch, I., Sherpa, T., Handley, M., Korotkikh, E., Introne, D., Kaspari, S., Miner, K., Matthews, T., Perry, B., Guy, H., Gajurel, A., **Singh, P. K.**, Elvin, S., Elmore, A. C., Tait, A., & Mayewski, P. A. (2021). A case study using 2019 pre-monsoon snow and stream chemistry in the Khumbu region, Nepal. *Science of the Total Environment*, 789(May), 148006.

Gul, C., Mahapatra, P. S., Kang, S., **Singh, P. K.**, Wu, X., He, C., Kumar, R., Rai, M., Xu, Y., & Puppala, S. P. (2021). Black carbon concentration in the central Himalayas: impact on glacier melt and potential source contribution. *Environmental Pollution*, 116544.

Singh, P. K., Kumar, A., & Banerjee, K. (2018). Methane Emission and Its Variability in Different Land-uses of Semi-arid Region, Rajasthan. *Journal of Climate Change*, 4(2), 67–75.

CONFERENCES

Attended

February 26–28, 2020

Roorkee Water Conclave 2020 focusing on “Hydrological Aspects of Climate Change” at NIH/IIT Roorkee, Roorkee, India

August 28–30, 2019

International forum on “The cryosphere and society, the voice of the Hindu Kush Himalaya” at ICIMOD Headquarters, Kathmandu, Nepal

Poster presentations

Praveen Kumar Singh, Ajanta Goswami, Bhupesh Adhikary, Shankar Prasad Poudel, Tshering Tashi, Siva Praveen Puppala, 2023. Variability of atmospheric black carbon concentration in two urban valleys of the Central Himalaya. 5th Atmospheric Composition and the Asian Monsoon (ACAM) workshop at the University of Dhaka, Bangladesh. June 8-10, 2023.

Awanish Kumar, **Praveen Kr. Singh**, Sandeep Kumar, 2015. Biochar from agro-waste and its carbon sequestration potential. National Conference on Climate Change: Emerging Issues and Mitigation Strategies at BBA (Central) University, Lucknow, Uttar Pradesh, India. November 23–24. SLPP–17.

Praveen Kr. Singh, Awanish Kumar, Sandeep Kumar, 2015. Vilayati khejra (*Prosopis juliflora*) biomass-based biochar: A potential fertilizer for (Ajmer) semi-arid region. 4th Annual International Convention on Climate Change and Water (C3W) at Suresh Gyan Vihar University, Jaipur, Rajasthan, India. October 16–17. pp–31.

WORKSHOPS/ TRAINING PROGRAMS

Attended

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| June 6–7, 2023 | 5 th Atmospheric Composition and the Asian Monsoon (ACAM) training school with a focus on “Using satellite observations and modeling of atmospheric chemistry and aerosols in the Asian monsoon region for research and application” at the University of Dhaka, Bangladesh. |
| August 25, 2020 | Virtual training program on “Introduction and demo: JAMS modeling system” conducted by ITB, Indonesia, and GIScience Group, Friedrich-Schiller University of Jena, Germany. |
| August 19–21, 2020 | Virtual training program on “black carbon monitoring instrument maintenance and application” conducted by ICIMOD, Nepal, and Aerosol d.o.o., Slovenia. |
| February 14, 2020 | One–day workshop on “Himalayan Cryosphere Studies: Recent advances and challenges” at Indian Institute of Remote Sensing, Dehradun, India |
| June 13–14, 2019 | Regional Workshop on “Air Pollution and Health in Nepal and the HKH” at ICIMOD Headquarters, Kathmandu, Nepal. |
| May 14–16, 2018 | Training on “remote sensing of snow water resources in HKH region” at ICIMOD Headquarters, Kathmandu, Nepal. |
| June 26–July 7, 2017 | "A Short Course on Dynamic Data Assimilation: Theory and Applications" at Indian Institute of Tropical Meteorology, Pune, India |
| June 19–24, 2017 | "Training on Glacier Studies and Remote Sensing" at Divecha Centre for Climate Change, IISc, Bangalore, India |
| May 08–11, 2017 | MADICE summer school on “Antarctic Climate Variability and Ice Dynamics” at National Centre for Antarctic & Ocean Research, Goa, India |
| July 25–31, 2016 | “Glaciers and Water Resource Management” organized by Global Initiative of Academic Networks (GIAN) and Ministry of Human Resource Development, Government of India at Jawaharlal Nehru University, New Delhi, India |

FIELD VISITS

September 25–30, 2017

Satopanth Glacier (4700 m a.s.l.) in Uttarakhand, India
DGPS survey and collection of ice/water samples

April 07–24, 2019

Everest Base Camp (5400 m a.s.l.) in Nepal

I participated as a member of the science team in the expedition under the project “Life at the Extremes” of the National Geographic Society, USA. During the expedition, I took responsibility for the spectroradiometer measurements and collecting field samples to analyze light-absorbing impurities in the snow/ice.

FELLOWSHIPS AND AWARDS

- ICIMOD Atmosphere Doctoral Fellowship 2018
- GATE (Ecology and Evolution) 2016, AIR–54 conducted by IISc, Bangalore
- UGC NET-JRF (Environmental Science) December 2015

TECHNICAL SKILLS

Programming Language

MATLAB, IDL, Python

Relevant Tool/Software

ArcGIS, QGIS, General circulation model (NASA GISS ModelE2.1), Regional climate model (RegCM4.7), Albedo model (SNICAR), Radiative transfer model (SBDART, libRadtran), Temperature index model (SPHY, SRM), Energy balance model (COSIPY, DEBAM), Microsoft Excel, Word, PowerPoint

Working Platform/System

Windows, Linux

PROFESSIONAL MEMBERSHIPS

Life Member

Indian Aerosol Science and Technology Association (IASTA)
Indian Meteorological Society (IMS)
Indian Science Congress Association (ISCA)
Indian Society of Geomatics (ISG)
Indian Society of Remote Sensing (ISRS)
Society of Young Agriculture and Hydrology Scholars of India (SYAHI)

REFERENCES

Dr. Ajanta Goswami

Associate Professor,
Department of Earth Sciences,
Joint Faculty–CoEDMM,
Indian Institute of Technology Roorkee,
Roorkee-247667, Uttarakhand, India
Email Id: ajantagoswami@gmail.com

Dr. Siva Praveen Puppala

Senior Scientist,
Climate & Atmospheric Research,
Quality Systems and Reporting,
Science, Economics, and Insights Division,
Department of Planning and Environment
480 Weeroona Road, Lidcombe NSW 2141, Australia
Email Id: praveen.puppala@environment.nsw.gov.au