

Pallavi Pant

Doctoral Researcher

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About

Title of PhD: Estimation and characterization of road traffic contribution to particulate matter

Supervisors: [Professor Roy Harrison \(/staff/profiles/gees/harrison-roy.aspx\)](/staff/profiles/gees/harrison-roy.aspx) and [Dr William Bloss \(/staff/profiles/gees/bloss-william.aspx\)](/staff/profiles/gees/bloss-william.aspx)

The aim of Pallavi's research project is to estimate and characterize the contribution of road traffic to particulate matter in UK and Indian cities.

Her work involves chemical characterization of traffic emissions using organic molecular markers and trace metals and data analysis using statistical models and chemical mass balance model.

Pallavi's research is supported by a School of Geography, Earth and Environmental Sciences scholarship.

Qualifications

M.Sc. Environmental Studies (2007-2009), Department of Natural Resources, TERI University, New Delhi, India
Awarded University Gold Medal for Academic Excellence

Bachelor of Sciences (Botany), Sri Venkateswara College (2004-2007), Delhi University, New Delhi, India

Biography

Pallavi Pant holds a M.Sc. in Environmental Studies from TERI University, India and a B.Sc. in Botany from Sri Venkateswara College, Delhi University, India. During the Masters Programme, she carried out research on air quality models in collaboration with the Central Road Research Institute (CRRRI), New Delhi, worked as a research intern for a Government of NCT of Delhi project on energy and environment impact assessment for transportation systems. She also did short-term internships with WWF-India, LEAD-India and ClimateLab. She developed TERI University's Environmental Management Plan with a group of students and helped in establishment of the Sustainability Cell at the university. In 2008 and 2009, she received scholarship to visit Freie University, Germany and Yale School of Forestry and Environmental Studies, Yale University, USA respectively for research work. After completing the Masters, Pallavi worked with ClimateWorks Foundation for fourteen months where she helped develop the transport and air pollution portfolio for a new organization.

Research

Research interests

Receptor modelling, Particulate Matter, Air Pollution Management, Non-exhaust emissions, Urban Air Quality

Research group

[Environmental Health Sciences \(/research/activity/environmental-health/index.aspx\)](/research/activity/environmental-health/index.aspx)

Other activities

In 2011 and 2012, Pallavi won the University of Birmingham Roberts Funding Award together with departmental colleagues and organizing national-level symposia. In 2011-12, she also coordinated the Environmental Health Science Seminar Series. Pallavi also works on sustainable transport issues with the Environmental Task Group of the College of Life and Environmental Sciences at the university. Since 2011, she has been working as a postgraduate mentor to support and advise new students. Pallavi also served as a student assistant at the AAAR 2013.

Awards

- Rees Jeffreys Road Fund - Estimation of contribution from non-exhaust sources to PM10 in road dust
- LES DR Development Award
- The Aerosol Society Student Travel Grant (2012)
- University of Birmingham PhD Studentship (2010-2013)
- University of Birmingham Roberts Funding Award (2011 and 2012)
- VKRF Visiting Scholarship (2009)
- Gold Medal for Academic Excellence, TERI University (2009)
- DAAD Visiting Scholarship (2008)

- Science Merit Award, University of Delhi (2005 and 2006)
- EAC 2013 Student Bursary

Membership

- Royal Society of Chemistry
- The Aerosol Society, UK
- American Association for Aerosol Research
- Indian Aerosol Science and Technology Association

Other projects

- UKIERI Trilateral Research Partnerships Project- Receptor Modelling of Particulate Air Pollutants in New Delhi, India

Publications

Papers

Pant, P. and Harrison, R.M., 2013. Estimation of the Contribution of Road Traffic Emissions to Particulate Matter Concentrations from Field Measurements: A Review. *Atmospheric Environment*, 77:78-97.

Pant, P. and Harrison, R.M., 2012. Critical Review of Receptor Modelling for Particulate Matter: A Case Study of India. *Atmospheric Environment*, 49:1-12.

Joshi, A. K., **Pant, P.**, Kumar, P., Giriraj, A., and Joshi, P.K. (2010) National Forest Policy in India: Critique of Targets and Implementation. *Small Scale Forestry*, 10(1): 83-96.

Jain, S. & **Pant, P.**, 2010. Environmental Management Systems in Educational Institutions: A Case Study of TERI University, India. *International Journal of Sustainability in Higher Education*, 11(3): 236-249.

Pant, P., 2011. Carbon, Conservation, Communities under Sustainability (C3S) Paradigm for Forests. In: W. Leal Filho, ed. 2011. *The Economic, Social and Political Elements of Climate Change*. Berlin: Springer Verlag, pp. 543-553. . Berlin: Springer Verlag, pp. 543-553.

Reports

Mani, A. and **Pant, P.**, 2012. Review of literature in India's Autorickshaw sector: A synthesis of findings. [pdf] Mumbai: Embarq-India. Available at: <http://www.embarq.org/en/review-literature-indias-urban-auto-rickshaw-sector-synthesis-findings> (<http://www.embarq.org/en/review-literature-indias-urban-auto-rickshaw-sector-synthesis-findings>)

Conference papers

Pant, P., Yin, J. and Harrison, R.M., 2013. Performance of the Chemical Mass Balance Model with Various Traffic Profiles. In: *American Association for Aerosol Research Conference 2013*. Portland, Oregon, USA, 1-6 September, 2013. (Oral Presentation)

Pant, P., Yin, J. and Harrison, R.M., 2013. Performance of the Chemical Mass Balance Model with Various Traffic Profiles. In: *European Aerosol Conference 2013*. Prague, Czech Republic, 1-6 September, 2013. (Oral Presentation)

Pant, P., Baker, S.J. and Harrison, R.M., 2013. Estimation of Non-Exhaust Emissions in PM10 Road Dust. In: *European Aerosol Conference 2013*. Prague, Czech Republic, 1-6 September, 2013. (Poster Presentation)

Pant, P., Yin, J. and Harrison, R.M., 2013. Performance of the Chemical Mass Balance Model with Different Molecular Marker Traffic Profiles. In: *2013 Annual UK Review Meeting on Outdoor and Indoor Air Pollution Research*. Cranfield, UK, 23-24 April, 2013. (Poster Presentation)

Pant, P. and Harrison, R.M., 2012. Particulate Receptor Modelling In India: A Critical Review. In: *Better Air Quality Conference*. Hong Kong, 5-7 December, 2012. (Poster Presentation)

Pant, P. and Harrison, R.M., 2012. Assessment of vehicular profiles of organic molecular markers vis-à-vis real world traffic emissions. In: *European Aerosol Conference*. Granada, Spain, 2-7 September, 2012. (Poster Presentation)

Pant, P. and Harrison, R.M., 2012. Assessment of vehicular profiles of organic molecular markers vis-à-vis real world traffic emissions. In: *ECG Atmospheric & Environmental Chemistry Forum 2012*. Leicester, UK, 25 June, 2012. (Poster Presentation)

Pant, P., 2010. Opportunities and Challenges for REDD Plus in India. In: *World Council on Corporate Governance 12th World Congress on Environmental Management, Theme: Governance and Climate Security- Carbon, Climate, Cancun and Commonsense*. New Delhi, India, 28-29 May, 2010.

Pant, P., 2009. Are we REDD-Y? In: *Conflict and Cooperation: Tools for Governing Tropical Forests*, Annual Conference Yale Student Chapter- International Society of Tropical Foresters. New Haven, Connecticut, USA, 27-28 March, 2009. (Poster Presentation)

Jain, S., and **Pant, P.**, 2009. Environmental Management Practices to reduce GHG emissions in different sectors. In: UGC (University Grants Commission) sponsored *National Seminar on Global Warming: Role of Greenhouse Gases and their Management*. Kolkata, India, 25 March, 2009.

Pant, P. and Jain, S., 2008. Effects of Climate Change and Air Pollution on Forest Ecosystems: A Theoretical Framework. In: *International Disaster and Risk Conference*. Davos, Switzerland, 25-29 August, 2008.