

## Bhartendu Pandey

Ph.D. Student, Yale University  
Room #06, 380 Edwards Street, New Haven, CT-06511

### Research Interests

urban dynamics, environmental change, biodiversity, food security, satellite remote sensing, geospatial modeling

### Education

2015– Ph.D. Student  
Yale University, School of Forestry & Environmental Studies, New Haven, CT  
2010–2012 M.Sc. Geoinformatics  
TERI University, Department of Natural Resources, New Delhi, India  
2006–2009 B.Sc. Life Sciences  
Delhi University, Ramjas College, New Delhi, India

### Research and Professional Experience

2016– **Series Coordinator**, Yale Himalaya Initiative, Yale University  
2015 **Independent Research Consultant**, New Delhi, India  
2012–2014 **Post-graduate Associate**, (NASA LCLUC Grant: NNX11AE88G), Urbanization and Global Change Group, School of Forestry & Environmental Studies, Yale University (Advisor: Prof. Karen C. Seto)  
2011–2012 **Student Intern**, Department of Natural Resources, TERI University, New Delhi, India (Advisor: Prof. P. K. Joshi)  
2011 **Summer Intern**, Regional Remote Sensing Center, Indian Space Research Organization, Nagpur, India (Advisor: Rajashree V. Bothale (Scientist/Engineer))

### Teaching Experience

2015 Invited workshop on “*Remote Sensing and Spatial Data Processing in R*”, TERI University, New Delhi, India  
2014 Designed a lab exercise “*Identify timing of agricultural land loss to urban growth using MODIS time-series data*”, course on “*Remote Sensing of Land-use and Land-cover change*”, School of Forestry & Environmental Studies, Yale University  
2013 Workshop on “*Remote Sensing Image Analysis and Statistics using R*”, Urbanization and Global Change Group, School of Forestry & Environmental Studies, Yale University  
2012 Laboratory Supervisor, Course: “*Photogrammetry*”, TERI University, New Delhi, India  
2011 Workshop on “*Spatial Network Analysis*”, TERI University, New Delhi, India  
2010 Teaching Assistant, Course: “*Elementary Biochemistry*” Department of Biochemistry, GBPUAT, Pantnagar, India

### Awards

2013 Gold Medal & Certificate of Academic Distinction for the Best Academic Record, TERI University, New Delhi, India  
2011 Best Paper Presentation Award, Annual Convention of the Indian Society of Remote Sensing (ISRS), Bhopal, India  
2010 Urban Habitat Forum Fellow, Urban Mobility India, New Delhi, India  
2005 Distinct Scholar in Sanskrit, New Delhi, India

## Peer-reviewed Publications (published and in-review)

- Zhang, Q., **Pandey, B.**, & Seto, K.C. (in review). A Robust Method to Generate a Consistent Time Series from the DMSP/OLS Nighttime Light Data. *IEEE Transactions on Geoscience and Remote Sensing*
- Pandey, B.**, & Joshi, P. (in revision). Identifying geographic determinants of spatial patterns of urban growth: A case study of Pune metropolitan region, India. *GIScience & Remote Sensing*
- Pandey, B.**, & Seto, K.C. (2015). Urbanization and agricultural land loss in India: Comparing satellite estimates with census data. *Journal of Environmental Management*, 148, 53-66
- Pandey, B.**, & Joshi, P. (2015). Numerical modelling spatial patterns of urban growth in Chandigarh and surrounding region (India) using multi-agent systems. *Modeling Earth Systems and Environment*, 1, 1-14
- Pandey, B.**, Joshi, P., & Seto, K.C. (2013). Monitoring urbanization dynamics in India using DMSP/OLS night time lights and SPOT-VGT data. *International Journal of Applied Earth Observation and Geoinformation*, 23, 49-61
- Bothale, R.V., & **Pandey, B.** (2013). Evaluation and Comparison of Multi Resolution DEM Derived Through Cartosat-1 Stereo Pair—A Case Study of Damanganga Basin. *Journal of the Indian Society of Remote Sensing*, 41, 497-507

## Book Chapters and Conference Proceedings

- Mitra, C., **Pandey, B.**, Allen, N., & Seto, K.C. (2016). Contemporary urbanization in India. In K.C. Seto, W. Solecki, & C. Griffith (Eds.), *The Routledge Handbook of Urbanization and Global Environmental Change*
- Pandey, B.**, Bothale, R., Sehdev, T., & Balha, A. (2011). Evaluation of Cartosat-1 DEM for hydrological applications and comparison with other applicable DEMs. In, *National Symposium of Indian Society of Remote Sensing*. Bhopal, India.
- Balha, A., Bothale, R., **Pandey, B.**, & Sehdev, T. (2011). Watershed Prioritization using Cartosat-1 DEM derived parameters and multi-criteria analysis. In, *National Symposium of Indian Society of Remote Sensing*. Bhopal, India.
- Sehdev, T., Bothale, R., Balha, A., & **Pandey, B.** (2011). Hypsometric analysis of Erosional topography. In, *National Symposium of Indian Society of Remote Sensing*. Bhopal, India.

## Skills and Professional Services

- Computer Programming: C/C++, Matlab/Octave, Python, R
- Quantitative Analysis: Statistical analysis and modeling, Agent-based modeling, Geo-computation, Machine learning and optimization algorithms
- Remote Sensing & GIS: ArcGIS, GRASS GIS, QGIS, ERDAS, ENVI, IDRISI, GDAL/OGR API, Google Earth Engine API
- Journal Reviewer: *Applied Geography; Sustainability; Remote Sensing; GIScience & Remote Sensing*