

## Dev Niyogi

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### Education and Training

Ph.D. Atmospheric Sciences, North Carolina State University, *Biosphere Atmosphere Interactions coupled with CO<sub>2</sub> and Soil Moisture Changes*, 509 p., Oct. 2000.

M.S. Atmospheric Sciences, North Carolina State University, *Dynamic Interactions in Soil Vegetation Atmosphere Transfer Processes*, 250 p., Oct. 1996.

B.E. Civil Engineering, Univ. of Poona, Report on: *Development, and Validation, of an Air Quality Model for an Industrial Area*, 151 p., May 1994.

### Research and Professional Experience

2005 – Asst. Professor, Purdue University, Agronomy- Crop, Soil, Environmental Sciences and Earth and Atmospheric Sciences.

2005 – onwards State Climatologist for Indiana, Purdue University

2001 – onwards, Research Assistant Professor, Dept. of Marine, Earth, and Atmos. Sciences, North Carolina State University (NCSU); Colorado State University

2002 – Acting Director and State Climatologist for NC, NC State University (NCSU).

2001 – 2003 Associate State Climatologist, State Climate Office of NC, NCSU

1998 – 2000 Meteorologist, Dept. of Horticulture Science, NCSU

1994 – 1998 Graduate Research Assistant, Dept. of MEAS, NCSU

1994 1st Rajeev Gandhi Summer Fellow in Atmospheric Sciences, Jawaharlal Nehru Center for Advanced Scientific Research, Indian Institute of Sciences, Bangalore, India.

**Publications** (G : graduate student; pdf available at [landsurface.org](http://landsurface.org)); Published / Accepted : 70; Conf. preprints: Preprints / extended abstracts: 148; Book chapters: 4

### Five Recent Relevant:

1. Niyogi D., T. Holt, S. Zhong, P. C. Pyle<sup>G</sup>, J. Basara, 2006, Urban and Land Surface Effects on the 30 July 2003 Mesoscale Convective System Event Observed in the Southern Great Plains, *Journal of Geophysical Research*, 111, D19107, doi:10.1029/2005JD006746.
2. Alfieri J.G.<sup>G</sup>, D. Niyogi, P.D. Blanken, F. Chen, M.A. LeMone, K. Mitchell, M.B. Ek, and A. Kumar<sup>P</sup>, 2007, Estimation of the Minimum Canopy Resistance for Croplands and Grasslands Using Data from the 2002 International H2O Project, *Monthly Weather Review*, in press (available at AMS website under forthcoming papers).
3. LeMone M.A., M. Tewari, F. Chen, J.G. Alfieri<sup>G</sup>, D. Niyogi, 2008, Adding Horizontal Heterogeneity as a Criterion for Evaluating a Land-Surface Model, *Monthly Weather Review*, in press (available at AMS website under forthcoming papers).
4. Alfieri J.G.<sup>G</sup>, X. Xiao, D. Niyogi, R.A. Pielke Sr., F. Chen, M. A. LeMone, 2008, Satellite-based modeling of transpiration and evaporation of grasslands and croplands in the Southern Great Plain, USA, *Global Planetary Changes*, accepted.
5. LeMone. M.A., F. Chen, J.G. Alfieri<sup>G</sup>, R.H. Cuenca, Y. Hagimoto, P. Blanken, D. Niyogi, S. Kand, K. Davis, R. Grossman, 2007, NCAR/CU Surface, Soil, and Vegetation Observations During the International H2O Project 2002 Field Campaign, *Bulletin of the American Meteorological Society*, 88, 65 – 81.

**Five Significant:**

6. Holt T., D. Niyogi, F. Chen, M. LeMone, K. Manning, A. Qureshi, 2006, Effect of Land - Atmosphere Interactions on IHOP 24-25 May 2002 Convection, *Mon. Wea. Rev.*, 134, 113- 133.
7. Pielke Sr., R.A., G. Marland, R.A. Betts, T.N. Chase, J.L. Eastman, J.O. Niles, D. Niyogi, and S. Running, 2002: The influence of land-use change and landscape dynamics on the climate system- relevance to climate change policy beyond the radiative effect of greenhouse gases. *Phil. Trans. Royal Soc. (London) A.*, 360, 1705-1719.
8. Niyogi D., Xue Y-K., Raman S., 2002, Hydrological Land Surface Response in a Tropical Regime and a Midlatitudinal Regime, *Journal of hydrometeorology*, 3, 39-56
9. Houston, A., and D. Niyogi, 2007, The Sensitivity of Convective Initiation to the Lapse Rate of the Active Cloud-Bearing Layer, *Mon. Wea. Rev.*, 135, 3013 - 3032. DOI:10.1175/MWR3449.1
10. Niyogi D., S. Raman, 1997, Comparison of Four Different Stomatal Resistance Schemes Using FIFE Observations, *J. Appl. Meteorol.*, 36, 903 – 917.

**Teaching and Synergistic Activities:**

1. Teaching a graduate land surface modeling course (Fall semester), undergraduate weather and climate course (Spring semester) at Purdue University. Research and Teaching interests relate to land – atmosphere interactions. Previously taught Instrumentation Meteorology, Global Climate Change.
2. State Climatologist of Indiana, work with media and general public on climate related activities.
3. Invited Member, AMS Committee on Applied Climate 2002 – 2006; Invited Member, AMS Committee on Agriculture and Forest Meteorology 1999 – 2002; Member, AGU Committee on Biogeochemistry (Meetings subcommittee; also coordinator AGU biogeochemistry student awards Spring AGU 2001, 2002, 2004, 2005 meeting); Member, AASC / NOAA Climate Reference Network Working Group (1999 – 2001); Invited Member, Federal Geophysical Data Committee, Spatial Climate Group (2000 – 2003), Invited Member, Member WG 14 for the Weather Research Forecast (WRF) model- Land Surface Model group.
4. Review Editor for ‘Climate Research’ (2006 - ). Associate Editor for AMS Journal of Applied Meteorology and Climatology (2008 - ).

**Collaborators (including coauthors and coeditors in past 48 months):**

Alpert P. Tel Aviv Univ; Aneja V NCSU; Basara J OU; Boybeyi Z., GMU; Chen Fei NCAR; Douglas E UNH; Gu Lianhong ORNL; Mohanty U.C., IIT Delhi; Pielke Roger Sr. CU.

Graduate Advisor: Sethu Raman, Professor of Marine, Earth Atmospheric Sciences, NC State Univ.

Thesis Advisor/Sponsor/ Assistant: Aaron Sims, MCNC Robert Gilliam, EPA, Toshihisa Matsui, CSU. Current: Thesis Advisor for: Joseph Alfieri, Hsini Chang, Souleymane Fall, Lei Ming, Umarporn Charusombat. Postdoctoral Researchers: Anil Kumar (jointly at NCAR with Fei Chen).

Students Graduated: S. Fall (MS continuing Ph. D.), Hsin-I Chang (MS continuing Ph. D.), TN Jones (MS, NCSU), R Palmieri (MS), A Qureshi (MS), J. Lewtisky (MS), PC Pyle (MS), S Konarik (MS), C Ochippinti (MS), RJ Mera (MS continuing PhD), Ashley Brooks (MS, working with NWS).