

IndianaView Student Scholarship 2015

Award Receipt: Peng Fu, Department of Earth and Environmental Systems, Indiana State University (E-Mail: pfu@sycamores.indstate.edu)

Overview: The IndianaView Student Scholarship (awarded \$1000) support my research to explore the impact of urbanization induced land cover changes including (1) to generate high-quality continuous land surface temperature product at regular spatial and temporal scales, (2) to model both the spatial and temporal patterns of urban growth and landscape thermal characteristics, (3) to develop new methods (data mining) to analyze the time series satellite observations for examining the local and regional climate change, and (4) to couple the land use and land cover changes with the thermal alterations in a systematic way for informing the related stakeholders and decision-makers of possible solutions to the sustainable urban development.

Fund usage and benefits

The funds help me to develop my professional career through attending the 2015 Association of American Geographers (AAG) annual conference, joining the professional societies, and purchasing the research related book.

AAG annual conference 2015: This is the first time for me to attend the AAG annual conference and to present my research to the largest remote sensing group that I have ever known. About \$700 was used to cover my travel expense to the AAG conference. This provided me a chance to communicate with the internationally renowned researchers and more importantly, get from them research suggestions that help me to revise my research paper. I was one of the finalist for the AAG remote sensing student paper competition session. With the support of the funds, it was a great success for me to organize the two conference sessions pertinent to the *time series image analysis*.

Society memberships: About \$100 was used to join the remote sensing societies as a student including the AAG remote sensing group, American Society for Photogrammetry and Remote Sensing (ASPRS) and IEEE Geoscience and Remote Sensing Society.

- They allow me to be updated with the latest remote sensing research topics and techniques in my field.
- I have been notified of the potential research fund, student scholarships, job positions and internships.

Dear Peng Fu, Congratulations on a successful submission of your session to the 2015 Annual Meeting, Chicago, Illinois. Your session details are as follows:

Title:	2015 Student Honors Paper Competition I
Description:	The Remote Sensing Specialty Group of the Association of American Geographers is pleased to announce the 2014-2015 Honors Competition for Student Papers. Students from all academic levels are invited to submit original research on all topics in the field of remote sensing. Research must have been completed within the past academic year, during the author's undergraduate or graduate studies and can include thesis and dissertation topics. At the time of presentation, the applicant must still be a student. Papers must be written entirely by the applicant; however, thesis and dissertation advisors may be co-authors on the papers. Students selected as finalists will be placed in a special paper session at the AAG Annual Meeting to be held April 21-25, 2015 in Chicago, Illinois.
Anticipated Attendance:	35
Organizers:	Iliyana Dobрева
Chairs:	Iliyana Dobрева
Participants:	<p>Presenter: Peng Fu, <i>Urbanization induced land cover change and its impact on land surface temperature: a time series approach</i></p> <p>Presenter: Xuecao Li, <i>A 30-year (1984-2013) record of annual impervious surface dynamics of Beijing City derived from Landsat Data</i></p> <p>Presenter: Wenyu Li, <i>Coastal inundated area change in west Florida from 1984 to 2013</i></p> <p>Presenter: Michael Norton, <i>Differing Sensitivities to Precipitation by Agricultural Land Cover Type</i></p> <p>Discussant: Timothy Warner</p> <p>Discussant: Changshan Wu</p> <p>Discussant: Xuelian Meng</p> <p>Presenter: Yuhong Zhou, <i>Object-level fusion of LIDAR pseudo-waveforms and HSR multi-spectral data for land cover mapping</i></p>

Figure 1. With the funding support, I was able to present my research (the first one under the **Participants**) in the 2015 AAG student paper competition session sponsored by the remote sensing specialty group.

- These professional memberships offer me chances to build my own research and social network that may eventually be helpful for my career plans. Currently, I am a Deputy-Communication Councilor in the ASPRS. This position requires the continuing student memberships supported by the IndianaView Student Scholarships.

The research book: The rest of the funds, \$200 was used to purchase one book entitled "Land-Use and Land-Cover Change: Local Processes and Global Impacts". I suffer a lack of understanding for the impact of land use and land cover change. This book is a synthesis of ten years of research conducted under the IGBP (International Geosphere-Biosphere Programme) and IHDP (International Human Dimensions Programme). By reading through this book, I have been able to learn the frontiers of the land use and land cover change. My own research was benefited in the following aspect: (1) searching for potential drivers of urban expansion, and (2) forecasting land use change under different urban growth scenarios.