

PaSCoR

Partnership for Spatial and  
Computational Research

Summer Station 2002

May 27-31, 2002



# Registration



# New PaSCoR Generation



Welcome!

# PaSCoR Mentors



Senior and graduated PaSCoR students that served as facilitators and group leaders during the Summer Station week.

# Welcome by Dr. Rosa Buxeda



Summer Station  
Coordinator



# RS-GIS Certificate and Internships Opportunities

Carmen Lugo  
Internship  
Coordinator



Josefita González  
Program Counselor



# Teamwork Workshop by Dr. Jorge I. Vélez Arocho



# Presentations by Project Investigators



Dr. Fernando Bird  
Biology



Student of  
Hamed Parsiani  
Electrical Eng.



Dr. Johannes  
Schellekens  
Geology

# How to make a great poster?



By: María Schwartz  
from the University  
Resource Center



# Teams working on their posters



# Teams working on their posters



# Here are the results!

**PaSCoR: The Journey Begins...**  
Herberto Martínez (Mentor) \* Métra Lacortano \* Claribel Acevedo \* Mariana Rodríguez \* Naira Fátima \* César Martínez

**Remote Sensing**  
Remote sensing is the process of detecting information about an object or area without making physical contact with the object. It is done from a distance, usually from an elevated position, using sensors that detect and measure the energy that is reflected or emitted from the target. Remote sensing systems have a number of components that include the sensor, the platform, the data, and the user.

**Geographic Information Systems**  
GIS is a computer-based system for the capture, storage, manipulation, analysis, and display of spatially referenced information. It is a technology that integrates hardware, software, and data to analyze and display geographically referenced information. GIS is used in a wide variety of fields, including urban planning, environmental management, and public health.

**Applications**  
Remote sensing and GIS are used in a wide variety of applications, including: environmental monitoring, urban planning, agriculture, forestry, and disaster management. Remote sensing can be used to monitor changes in land use, deforestation, and climate change. GIS can be used to analyze spatial data and create maps that show the relationship between different variables.

**Conclusion**  
Remote sensing and GIS are powerful tools that can be used to solve a wide variety of problems. They provide a way to collect and analyze data that is not possible through traditional methods. By using these technologies, we can gain a better understanding of our world and make more informed decisions about the future.

**PaSCoR Episode I: Entering the World of RS-GIS**

**Abstract**  
The PaSCoR Summer Station is a series of workshops that help students explore the different uses of Remote Sensing (RS) and Geographical Information Systems (GIS) technology. The goal is to expose students to these technologies and guide them to decide which area they are interested in. The primary goal of this mini-research is to investigate how Summer Station influences students when it is time to choose an area of investigation. Also it reflects the science field that attracts students the most.

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**PaSCoR Students Field Preferences**  
Sandra Bonano, Eric Pizarro, Luz Ulloa, Pamela Torres, Erick Nieves

**Abstract**  
PaSCoR Summer Station consists of a series of workshops that help students to explore the different uses of Remote Sensing (RS) and Geographical Information Systems (GIS) technology. The goal is to expose students to these technologies and guide them to decide which area they are interested in. The primary goal of this mini-research is to investigate how Summer Station influences students when it is time to choose an area of investigation. Also it reflects the science field that attracts students the most.

**Introduction**  
Remote Sensing (RS) and Geographical Information System (GIS) technologies are used in different science fields. Both serve as the primary tools for the Partnership for Spatial and Computational Research (PaSCoR) program. PaSCoR helps students learn and develop necessary skills to use these technologies and transform into competitive individuals. In order to expose them to RS and GIS technologies, PaSCoR offers a series of workshops, including the Summer Station.

**Method**  
Several seminars were taken to understand the management and use of Remote Sensing and Geographical Information Systems technology (RS-GIS) and astronomy.

**Conclusion**  
PaSCoR Summer Station represents a strong influence on students' decision towards their future investigations. Throughout the experience and considering all the workshops taken, the students choose to continue their researches on a particular area of science. Demonstrations of RS and GIS applications in various fields help the students guide their interests and establish future goals.

**References**  
RS-GIS Research at UPR: Mayaguez Prof. Linda Velez, Prof. Luz Ulloa, Dr. Johannes Schellekens, Dr. Jesús Danilo China and Dr. Fernando Bird-Pico and What is Remote Sensing and Geographical Information System Technology? Dr. Fernando Bird, NASA Night-Prof. Linda Velez.

# Here are the results!

## PaSCoR: The Only Boundary Is Your Imagination

Zuley Castro, Javier Contreras, Marcos Lopez, Malin Pires, Edwin Torres, & Rafael Gonzalez-Morales  
University of Puerto Rico, Mayaguez

**Remote Sensing & GIS**

**Abstract**  
This research was conducted as a part of the PaSCoR program... (text continues)

**Introduction**  
Remote Sensing is a technology that allows us to observe the Earth from space... (text continues)

**Applications**

- Environmental Monitoring:**
  - Deforestation
  - Urban expansion
  - Water resources
- Disaster Management:**
  - Earthquake damage assessment
  - Flood mapping
  - Wildfire monitoring
- Resource Management:**
  - Land use planning
  - Soil erosion control
  - Forest management

**Instruments**

- SPOT (Satellite Positioning and Timing)
- GPS (Global Positioning System)
- RS (Remote Sensing)
- GIS (Geographic Information System)

**Conclusion**  
The PaSCoR program has provided a unique opportunity for students to learn about the latest in Remote Sensing and GIS technology... (text continues)

**Acknowledgments**  
We would like to thank the PaSCoR program and the University of Puerto Rico for their support... (text continues)

## PaSCoR "Colegio" To Space

antes... luego... estrategia!

**Abstract**  
PaSCoR is a multidisciplinary program... (text continues)

**Introduction**  
PaSCoR is a multidisciplinary program... (text continues)

**Remote Sensing & GIS**

**Applications**

- Environmental Monitoring:**
  - Deforestation
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**Acknowledgments**  
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## PaSCoR... Our Future Is Ahead

Ingild Sotero, Yaritza Diaz, Marim G. Ramos  
INGU  
Mentor: Carlos Serrano (INEL)

**Abstract**  
PaSCoR is a program... (text continues)

**Introduction**  
PaSCoR has developed a program that covers all the main phenomena and application of RS, GIS, and GPS... (text continues)

**Remote Sensing**  
Remote Sensing is the collection of information about an object or area without making physical contact... (text continues)

**Geographic Information System**  
GIS is a computer system used to capture, store, check, and display data that is derived from remote sensing... (text continues)

**Field Trips**  
Throughout the program, students have had several field trips... (text continues)

**Our Experience**  
It was a great experience during PaSCoR... (text continues)

**Conclusion**  
During PaSCoR Summer Station, we learned a lot... (text continues)

# Visit to the Observatory at Arecibo



# Visit to the Observatory at Arecibo



# Visit to the Observatory at Arecibo



# Visit to the Observatory at Arecibo



# ★ Talent Show ★



# Certificates



# Certificates



# Special Recognition

Two students were recognized for completing all  
requisites of the program.



Yolanda Fong  
Geology

Rafael González  
Biology



It was a week of great experiences!

