

# Juan Carlos Fernandez Diaz

<https://sites.google.com/site/jfernandezhon/>

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## EDUCATION

- PhD - Geosensing Systems Engineering - University of Florida.** December 2010  
Relevant coursework: Photonics, LASER Electronics, Pattern Recognition, Geodesy, Surveying & Mapping, Image Processing, Remote Sensing, GIS, and Navigation.
- Masters of Science - Geosensing Systems Engineering - University of Florida.** August 2007
- Masters in Business Administration – Universidad Catolica de Honduras** July 2005  
Summa Cum Laude distinction, relevant coursework: Management, Accounting, Financial Engineering & Planning, Operations Research, Economics, Project Management.
- BS in Electrical & Industrial Engineering – Universidad Nacional Autonoma de Honduras.** June 2001  
Relevant coursework: Telecommunications signals and systems, Power Systems (Generation, Transformation, Distribution), Math, Physics, Computer Science.

## EXPERIENCE

- University of Houston, Department of Civil and Environmental Engineering** January 2010 to date  
**NSF National Center for Airborne LASER Mapping** [www.ncalm.org](http://www.ncalm.org)  
*Senior Researcher /Flight Controller - Laser Operator - Electronics Engineer*
- Coordinate logistics and manage flights for complex international projects; recent deployments include: Antarctica, New Zealand, Mexico, Honduras.
  - Support ongoing research on airborne remote sensing and systems; provide support to sponsored principal investigators.
  - Develop flight plans to meet the project data specifications, consult and coordinate with the pilot, air traffic control, federal state and local agencies to ensure that flight plans can be executed according to plan.
  - Collaborate in the grant request preparation process.
- University of Florida, Geosensing Systems Engineering Division** August 2005 to December 2009  
**NSF National Center for Airborne LASER Mapping** [www.ncalm.org](http://www.ncalm.org)  
*Graduate Student / Research Assistant*
- Supported research on LiDAR data collection and processing, provided support to sponsored principal investigators.
  - Developed mapping tools and techniques for scientific and infrastructure applications.
  - Participated and represent NCALM in conferences and special events (AGU, USGS).
- Singularity University GSP'09** August 2009  
NASA AMES Research Center, Mountain View, California <http://singularityu.org/>  
*Co-Chair for Team Project 10^9+*
- Assisted the faculty and guided the students in the development of a team project aimed at identifying critical exponential technologies to solve humanity's grand challenges.

## **NASA Goddard Space Flight Center**

June – July 2009

*Summer internship* through the University of Maryland Baltimore County

- Processed airborne Passive Active L&S-band radiometer data from the 2008 campaign.
- Developed of a georegistration model for the airborne sensor footprint.
- Developed Matlab scripts to perform calibration, georegistration and the creation of final scientific data products using the Google Earth kml format.

## **International Space University**

July – August 2007 & 2008

*Teaching Associate for the Space Studies Program*

<http://www.isunet.edu/>

- 2008 Barcelona, Spain. Assisted the faculty and guided the students in the development of a project aimed at identifying critical space technologies for monitoring volcano hazards and a plan to mitigate their impact on society.
- 2007 Beijing, China. Assisted the faculty and guided the students in the development of a project aimed at identifying critical space technologies for monitoring Earthquakes and to improve the response of civil protection agencies.

## **America Movil (NYSE: AMX) operation in Honduras (MEGATEL/CLARO) August 2003 to July 2005**

*Wireless Mobile Telephone Network Quality Assurance Chief*

<http://www.claro.com.hn/>

- Performed design, supervision and control functions during the network design, implementation and roll-out phases.
- Assured the wireless costumers technical satisfaction.
- Assured network operations to be within the required key performance indicators established for the America Movil networks in Latin America and by the Honduran telecom regulator.
- Provided link and feedback between the network planning and network operation & maintenance engineering units.
- Provided support to the regulatory affairs branch in issues regarding to network quality of service.

## **Comisión Nacional de Telecomunicaciones Honduras (CONATEL)**

October 1997 to August 2003

*Radioelectric Spectrum Planning & Engineering Advisor*

[www.conatel.hn](http://www.conatel.hn)

- Performed engineering analyses for the allocation and assignment of radioelectric spectrum.
- Database design, maintenance and development for radioelectric spectrum management.
- Prepared regulatory and normative proposals for radio communication systems and services.

## **California Institute of Technology / Jet Propulsion Laboratory**

July to September 1997

Pasadena, California, USA

<http://www.caltech.edu/>

<http://www.jpl.nasa.gov/>

*Research Fellow "Summer Undergraduate Research Fellowship" (SURF)*

<http://www.surf.caltech.edu/>

- Digital data analysis and interpretation for the "Near Infrared Mapping Spectrometer (NIMS)" experiment on board the Galileo spacecraft.

## **European Space Agency / European Space Astronomy Centre**

April 1996

Villa Franca del Castillo, Madrid, Spain

<http://www.esa.int/esaMI/ESAC/index.html>

- Traineeship at the satellite tracking station on computational data analysis and telecommunications.

- Responsible for the maintenance and operation of astronomical and computational equipment.
- Assisted the faculty with practical lab experiences, astronomical observations and course preparation.

## Publications

### Peer-reviewed Journal Publications

- [1] J. Fernandez-Diaz, W. Carter, C. Glennie, R. Shrestha, Z. Pan, N. Ekhtari, *et al.*, "Capability Assessment and Performance Metrics for the Titan Multispectral Mapping Lidar," *Remote Sensing*, vol. 8, p. 936, 2016.
- [2] C. T. Fisher, J. C. Fernández-Diaz, A. S. Cohen, O. Neil Cruz, A. M. Gonzáles, S. J. Leisz, *et al.*, "Identifying Ancient Settlement Patterns through LiDAR in the Mosquitia Region of Honduras," *PLOS ONE*, vol. 11, p. e0159890, 2016.
- [3] A. F. Chase, K. Reese-Taylor, J. C. Fernandez-Diaz, and D. Z. Chase, "Progression and Issues in the Mesoamerican Geospatial Revolution An Introduction," *Advances in Archaeological Practice*, vol. 4, pp. 219-231, 2016.
- [4] A. Magnoni, T. W. Stanton, N. Barth, J. C. Fernandez-Diaz, J. F. O. León, F. P. Ruíz, *et al.*, "Detection Thresholds of Archaeological Features in Airborne Lidar Data from Central Yucatán," *Advances in Archaeological Practice*, vol. 4, pp. 232-248, 2016.
- [5] K. Reese-Taylor, A. A. Hernández, A. F. F. Esquivel, K. Monteleone, A. Uriarte, C. Carr, *et al.*, "Boots on the Ground at Yaxnohcah Ground-Truthing Lidar in a Complex Tropical Landscape," *Advances in Archaeological Practice*, vol. 4, pp. 314-338, 2016.
- [6] M. L. Loughlin, C. A. Pool, J. C. Fernandez-Diaz, and R. L. Shrestha, "Mapping the Tres Zapotes Polity The Effectiveness of Lidar in Tropical Alluvial Settings," *Advances in Archaeological Practice*, vol. 4, pp. 301-313, 2016.
- [7] J. C. Fernandez Diaz, W. E. Carter, C. Glenie, and R. L. Shrestha, "Multicolor terrain mapping documents critical environments," *Eos, Transactions American Geophysical Union*, vol. 97, 20160614 2016.
- [8] Z. Pan, C. L. Glennie, J. C. Fernandez-Diaz, C. J. Legleiter, and B. Overstreet, "Fusion of LiDAR Orthowaveforms and Hyperspectral Imagery for Shallow River Bathymetry and Turbidity Estimation," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 54, pp. 4165-4177, 2016.
- [9] Z. Pan, C. Glennie, J. C. Fernandez-Diaz, and M. Starek, "Comparison of bathymetry and seagrass mapping with hyperspectral imagery and airborne bathymetric lidar in a shallow estuarine environment," *International Journal of Remote Sensing*, vol. 37, pp. 516-536, 2016/02/01 2016.
- [10] C. Legleiter, B. Overstreet, C. Glennie, Z. Pan, J. Fernandez-Diaz, and A. Singhania, "Evaluating the capabilities of the CASI hyperspectral imaging system and Aquarius bathymetric LiDAR for measuring channel morphology in two distinct river environments," *Earth Surface Processes and Landforms*, 2015.
- [11] Z. Pan, C. Glennie, P. Hartzell, J. Fernandez-Diaz, C. Legleiter, and B. Overstreet, "Performance Assessment of High Resolution Airborne Full Waveform LiDAR for Shallow River Bathymetry," *Remote Sensing*, vol. 7, pp. 5133-5159, 2015.
- [12] J. Fernandez-Diaz, W. Carter, R. Shrestha, and C. Glennie, "Now You See It... Now You Don't: Understanding Airborne Mapping LiDAR Collection and Data Product Generation for Archaeological Research in Mesoamerica," *Remote Sensing*, vol. 6, pp. 9951-10001, 2014.
- [13] A. Chase, D. Chase, J. Awe, J. Weishampel, G. Iannone, H. Moyes, *et al.*, "Ancient Maya Regional Settlement and Inter-Site Analysis: The 2013 West-Central Belize LiDAR Survey," *Remote Sensing*, vol. 6, pp. 8671-8695, 2014.

- [14] A. Harpold, Q. Guo, N. Molotch, P. Brooks, R. Bales, J. Fernandez-Diaz, *et al.*, "LiDAR-derived snowpack data sets from mixed conifer forests across the Western United States," *Water Resources Research*, vol. 50, pp. 2749-2755, 2014.
- [15] J. C. Fernandez-Diaz, C. L. Glennie, W. E. Carter, R. L. Shrestha, M. P. Sartori, A. Singhanian, *et al.*, "Early Results of Simultaneous Terrain and Shallow Water Bathymetry Mapping Using a Single-Wavelength Airborne LiDAR Sensor," *Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Journal of*, vol. 7, pp. 623 - 635, february 2014 2013.
- [16] E. L. Loudermilk, J. J. O'Brien, R. J. Mitchell, W. P. Cropper, J. K. Hiers, S. Grunwald, *et al.*, "Linking complex forest fuel structure and fire behaviour at fine scales," *International Journal of Wildland Fire*, vol. 21, pp. 882-893, 2012.
- [17] E. L. Loudermilk, J. K. Hiers, J. J. O'Brien, R. J. Mitchell, A. Singhanian, J. C. Fernandez, *et al.*, "Ground-based LIDAR: a novel approach to quantify fine-scale fuelbed characteristics," *International Journal of Wildland Fire*, vol. 18, pp. 676-685, 2009.

### Under review:

- [1] A. Fountain, J.C. Fernandez-Fiaz, J. Levy, M. Gooseff, D. van Horn, P. Morin, and R. Shrestha, "High-resolution elevation mapping of the McMurdo Dry Valleys, Antarctica and surrounding regions," submitted to Earth System Science Data (ESSD) on December 08, 2016.

### Books and Book Chapters

- [1] J. C. Fernandez Diaz, W. E. Carter, R. L. Shrestha, and C. L. Glennie, "Lidar Remote Sensing," in *Handbook of Satellite Applications*, ed: Springer, 2013, pp. 757-808.

### Conference Proceedings

- [1] Z. Pan, C. Glennie, J. C. Fernandez-Diaz, R. Shrestha, B. Carter, D. Hauser, *et al.*, "Fusion of bathymetric LiDAR and hyperspectral imagery for shallow water bathymetry," in *Geoscience and Remote Sensing Symposium (IGARSS), 2016 IEEE International*, 2016, pp. 3792-3795.
- [2] J. C. Fernandez-Diaz, H. Lee, C. L. Glennie, W. E. Carter, R. L. Shrestha, A. Singhanian, *et al.*, "Optimizing ground return detection through forest canopies with small footprint airborne mapping LiDAR," in *Geoscience and Remote Sensing Symposium (IGARSS), 2014 IEEE International*, 2014, pp. 1963-1966.
- [3] J. C. Fernandez-Diaz, W. E. Carter, R. L. Shrestha, S. J. Leisz, C. T. Fisher, A. M. Gonzalez, *et al.*, "Archaeological prospection of north Eastern Honduras with airborne mapping LiDAR," in *Geoscience and Remote Sensing Symposium (IGARSS), 2014 IEEE International*, 2014, pp. 902-905.
- [4] P. J. Hartzell, J. C. Fernandez-Diaz, X. Wang, C. L. Glennie, W. E. Carter, R. L. Shrestha, *et al.*, "Comparison of synthetic images generated from LiDAR intensity and passive hyperspectral imagery," in *Geoscience and Remote Sensing Symposium (IGARSS), 2014 IEEE International*, 2014, pp. 1345-1348.
- [5] Z. Pan, J. C. Fernandez-Diaz, C. L. Glennie, and M. Starek, "Shallow water seagrass observed by high resolution full waveform bathymetric LiDAR," in *Geoscience and Remote Sensing Symposium (IGARSS), 2014 IEEE International*, 2014, pp. 1341-1344.
- [6] J. C. Fernandez-Diaz, W. E. Carter, R. L. Shrestha, C. L. Glennie, M. P. Sartori, and A. Singhanian, "Early results from a high-resolution hybrid terrestrial and bathymetry mapping LiDAR," in *Geoscience and Remote Sensing Symposium (IGARSS), 2012 IEEE International*, 2012, pp. 4994-4997.

- [7] J. Fernandez Diaz, J. Judge, K. C. Slatton, R. Shrestha, W. E. Carter, and D. Bloomquist, "Characterization of full surface roughness in agricultural soils using groundbased LiDAR," in *Geoscience and Remote Sensing Symposium (IGARSS), 2010 IEEE International*, 2010, pp. 4442-4445.
- [8] E. L. Loudermilk, A. Singhanian, J. C. Fernandez, J. K. Hiers, J. J. O'Brien, W. P. Cropper Jr, *et al.*, "Application of ground-based LIDAR for fine-scale forest fuel modeling," *USDA Forest Service Processing RMRS-P-46CD*, 2007.

## Conference Papers and Presentations

- [1] N. Cao, H. Lee, E. Zaugg, R. L. Shrestha, W. E. Carter, C. Glenie, *et al.*, "Evaluation of the Potentials and Challenges of an Airborne InSAR System for Deformation Mapping: A Case Study over the Slumgullion Landslide," presented at the 2016 AGU Fall Meeting, San Francisco, CA, 2016.
- [2] A. G. Fountain, J. Levy, M. Obryk, M. Gooseff, D. Van Horn, C. Glennie, *et al.*, "Dramatic Topographic Changes in the McMurdo Dry Valleys, Antarctica," presented at the 2016 The Geological Society of America Annual Meeting, Denver, Colorado, 2016.
- [3] P. Morin, A. G. Fountain, J. C. Fernandez-Diaz, and R. L. Shrestha, "The 2014-15 McMurdo dry valleys baseline; coordinated lidar, air photography and satellite based electro-optical imagery," presented at the 2016 Scientific Committee on Antarctic Research Conference, Kuala Lumpur, 2016.
- [4] C. A. Pool, M. L. Loughlin, M. Melgarejo Pérez, G. Montero Mejía, I. Martínez-Muñiz, G. García García, *et al.*, "El uso de teledetección contra el saqueo: observaciones de un proyecto en las tierras bajas del sur de Veracruz," presented at the Conferencia Intercontinental SAA 2016, Oaxaca, Mexico, 2016.
- [5] Z. Pan, C. Glenie, and J. C. Fernandez-Diaz, "Shallow Water Bathymetry using Hyperspectral Imagery and Lidar," presented at the 17th Annual JALBTCX Airborne Coastal Mapping Charting Technical Workshop, Silver Spring, MD, 2016.
- [6] R. L. Shrestha, N. Ekhtari, A. Tayyebi, J. C. Fernandez-Diaz, W. E. Carter, E. Turner, *et al.*, "Baseline High-Resolution Multi-Sensor Remote Mapping of Wetlands in Barataria Bay Estuarine System," presented at the 2016 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Tampa, FL, 2016.
- [7] J. C. Fernandez-Diaz, A. G. Fountain, P. Morin, A. Singhanian, D. Hauser, M. Obryk, *et al.*, "Multispectral Airborne Mapping LiDAR Observations of the McMurdo Dry Valleys," presented at the 2015 AGU Fall Meeting, San Francisco, CA, 2015.
- [8] Z. Pan, C. Glenie, and J. C. Fernandez-Diaz, "Water Turbidity Estimation from Airborne Hyperspectral Imagery and Full Waveform Bathymetric LiDAR," presented at the 2015 AGU Fall Meeting, San Francisco, CA, 2015.
- [9] H. Lee, R. Shrestha, W. E. Carter, C. Glenie, G. Wang, Z. Lu, *et al.*, "Mapping Slumgullion Landslide in Colorado, USA Using Airborne Repeat-Pass InSAR," presented at the 2015 AGU Fall Meeting, 2015.
- [10] J. C. Fernandez-Diaz, R. Shrestha, W. E. Carter, C. Glennie, A. Singhanian, M. Sartori, *et al.*, "From the Tropics to Antarctica: Performance Assessment from NCALM's first extended campaign of the Titan MW.," presented at the 2015 Imaging and Lidar Solutions Conference (ILSC), Toronto, Canada, 2015.
- [11] C. J. Legleiter, B. T. Overstreet, C. L. Glennie, Z. Pan, J. C. Fernandez-Diaz, and A. Singhanian, "Comparative Evaluation of Hyperspectral Imaging and Bathymetric LiDAR for Measuring Channel Morphology Across a Range of River Environments," presented at the American Geophysical Union, Fall Meeting 2014, San Francisco, CA, 2014.
- [12] J. C. Fernandez-Diaz, W. Carter, and R. Shrestha, "HAVE WE HIT THE WALL? Adventures through the LiDAR Hinterland.," presented at the 2014 Chacmool Conference, Calgary Canada, 2014.
- [13] K. Reese-Taylor, M. Peuramaki-Brown, A. Anaya Hernández, R. L. Shrestha, and J. C. Fernández-Diaz, "Identifying dispersed urbanism in the Central Karstic Uplands using LiDAR," presented at the 2014 Chacmool Conference, Calgary Canada, 2014.

- [14] X. Zhou, Y. Zhang, H. L. Yang, S. Prasad, J. Jung, M. Crawford, *et al.*, "Seagrass Mapping via Active Learning using Airborne Hyperspectral and LiDAR Measurements," presented at the IEEE International Geoscience and Remote Sensing Symposium, Quebec City, 2014.
- [15] C. Fisher, S. Leisz, J. C. Fernández-Díaz, and W. Carter, "New perspectives on Mosquitia prehistory using Lidar," presented at the Society for American Archaeology 79th Annual Meeting, Austin, Texas, 2014.
- [16] J. C. Fernandez-Diaz, M. Sartori, A. Singhanía, W. Carter, and R. Shrestha, "Airborne mapping LIDAR data collection and processing for archaeological research," presented at the Society for American Archaeology 79th Annual Meeting, Austin, TX, 2014.
- [17] S. Leisz, C. Fisher, F. Pezzutti, and J. C. Fernandez-Diaz, "Moving beyond traditional full coverage survey: LiDAR at Angamuco, Michoacán, Mexico," presented at the Society for American Archaeology 79th Annual Meeting, Austin, TX, 2014.
- [18] J. C. Fernandez Diaz, W. E. Carter, R. L. Shrestha, and C. L. Glennie, "Geodetic Imaging: Expanding the Boundaries of Geodesy in the 21st Century," presented at the AGU Fall Meeting Abstracts, 2013.
- [19] Z. Pan, S. Prasad, M. J. Starek, J. C. Fernandez Diaz, C. L. Glennie, W. E. Carter, *et al.*, "Seagrass Identification Using High-Resolution 532nm Bathymetric LiDAR and Hyperspectral Imagery," presented at the AGU Fall Meeting, San Francisco, CA, 2013.
- [20] J. C. Fernandez-Diaz, S. Elkins, A. M. González, W. Carter, R. Shrestha, M. Sartori, *et al.*, "Sistemas de Información Geográfico y la Preservación del Patrimonio Natural y Cultural: La exploración de la Mosquitia Hondureña," presented at the XIV CONFERENCIA IBEROAMERICANA DE SISTEMAS DE INFORMACIÓN GEOGRÁFICA, Tegucigalpa, Honduras, 2013.
- [21] M. J. Starek, J. C. Fernandez-Diaz, J. Gibeaut, R. Shrestha, L. Su, A. Reisinger, *et al.*, "Bathymetric Lidar Mapping of Redfish Bay State Scientific Area, Texas," presented at the 14th Annual JALBTCX Workshop, 2013.
- [22] M. J. Starek, J. C. Fernandez-Diaz, A. Singhanía, R. L. Shrestha, J. C. Gibeaut, L. Su, *et al.*, "Bathymetric Lidar Mapping of Seagrass Distribution within Redfish Bay State Scientific Area, Texas," presented at the American Geophysical Union, Spring Meeting 2013, 2013.
- [23] J. C. Fernandez-Diaz, R. L. Shrestha, W. E. Carter, C. Glennie, M. Sartori, and A. Singhanía, "NCALM's Lessons Learned and Insights into the Future from Ten + Years of Providing Geodetic Images for the monitoring of Hazards and the Response to Disasters," presented at the American Geophysical Union, Fall Meeting 2012, 2012.
- [24] J. C. Fernandez-Diaz, "NCALM's LiDAR Overview," presented at the CZO LIDAR Acquisition Initiative and Workshop, Berkeley, CA, 2012.
- [25] J. C. Fernandez-Diaz, "NCALM's LiDAR Workflow: The art & science of planning, collecting, processing and delivering research grade LiDAR products.," presented at the CZO LIDAR Acquisition Initiative and Workshop, Berkeley, CA, 2011.
- [26] W. E. Carter, R. L. Shrestha, C. L. Glennie, M. Sartori, and J. C. Fernandez-Diaz, "Geodetic Imaging for Rapid Assessment of Earthquakes: Airborne Laser Scanning (ALS)," presented at the American Geophysical Union, Fall Meeting 2010, San Francisco, 2010.
- [27] M. Oskin, R. Arrowsmith, A. Hinojosa, J. Gonzalez, A. Gonzalez, M. Sartori, *et al.*, "Airborne Lidar Survey of the 4 April 2010 El Mayor-Cucapah Earthquake Rupture," presented at the Southern California Earthquake Center 2010 Annual Meeting, Palm Springs, CA, 2010.
- [28] J. C. Fernandez, R. L. Shrestha, W. E. Carter, C. K. Slatton, and A. Singhanía, "The UF GEM Research Center Mobile Terrestrial Laser Scanner System M-TLSS Applied to Beach Morphology Studies in St. Augustine, Florida.," presented at the American Geophysical Union, Fall Meeting 2006, San Francisco, CA, 2006.

- [29] A. Singhania and J. C. Fernandez, "On the Potential Implementation of Ground-based Scanning & Imaging LIDARs on Future Surface Planetary Exploration Missions," presented at the American Geophysical Union, Fall Meeting 2006, 2006.

## White Papers, Reports, Magazine Articles and others

Archaeology from the Air, Feature Article American Scientist, January –February 2016.

<http://www.americanscientist.org/issues/feature/2016/1/archaeology-from-the-air>

Translated into German for the magazine Spektrum Der Wissenschaft August 2016

<http://www.spektrum.de/magazin/archaeologie-aus-der-luft/1411565>.

Understanding Waveform Digitizing and Waveform Data Processing, NCALM white paper, 2013.

<http://ncalm.cive.uh.edu/sites/ncalm.cive.uh.edu/files/files/publications/reports/NCALM-WP-2013-01.pdf>

Lifting the Canopy Veil, Airborne LiDAR for Archeology of Forested Areas, Imaging Notes, Volume 26 Number 2, Spring 2011. [http://www.imagingnotes.com/go/article\\_freeJ.php?mp\\_id=264](http://www.imagingnotes.com/go/article_freeJ.php?mp_id=264)

Characterization of Surface Roughness of Bare Agricultural Soils Using LiDAR. PhD Dissertation, University of Florida, 2010. <http://ufdc.ufl.edu/UFE0042435/00001>

Jewell, P.W., Skorko, K.W., Fernandez, J.C. "LiDAR Analysis of an Urban Alluvial System: Jordan River, Utah" in AEG News, Association of Environmental and Engineering Geologist. March 2010 Vol. 53, No. 1

Scientific applications of the Mobile Terrestrial Laser Scanner (M-TLS) system. Masters Thesis, University of Florida, 2007. <http://purl.fcla.edu/fcla/etd/UFE0021101>

An Overview of Lidar Point Cloud Processing Software. Adaptive Signal Processing Laboratory Report, 2007.

[http://ncalm.cive.uh.edu/sites/ncalm.cive.uh.edu/files/files/publications/reports/GEM\\_Rep\\_2007\\_12\\_001.pdf](http://ncalm.cive.uh.edu/sites/ncalm.cive.uh.edu/files/files/publications/reports/GEM_Rep_2007_12_001.pdf)

SOL: Earth Observation Systems for Small Countries and Regions. International Space University, 2006 Summer Session Program Team Project Report.

[http://ssp06.isunet.edu/index.php?option=com\\_content&task=view&id=164&Itemid=142](http://ssp06.isunet.edu/index.php?option=com_content&task=view&id=164&Itemid=142)

Percepcion de la Poblacion de Tegucigalpa Sobre los Riesgos de Salud Asociados a los telefonos moviles y sus Estaciones Base. Origenes, Fundamentos y el Impacto en el Desarrollo de la Industria de las telecomunicaciones en Honduras. MBA Thesis Report, 2005.

## Awards, Scholarships and Fellowships

1. University of Florida Alumni Graduate Award to carry PhD studies between 2007 and 2011 in the field of Geosensing Systems Engineering.

2. International Space University (ISU) scholarship to participate in the 2006 ISU Summer Session Program, held in Strasbourg, France from July 3rd to September 1st, 2006.
3. United States Department of State, Fulbright Scholarships Program. Graduate Studies Scholarship to participate in the University of Florida Geosensing Systems Engineering program. 2005-2007.
4. United States Department of State International Visitor Program invitation to the international seminar on "Telecommunications, Information Technologies & the Internet". (Washington D.C.; Seattle, Washington; Grand Island, Nebraska; Austin, Texas; Tampa, Florida). July 14th – August 1st 2003.
5. Organization of the American States Scholarship to participate in the "Regulation and New IP Services" course.
6. United Nations Grant to participate in the Space Generation Forum for the Third United Nations Conference for the exploration and peaceful uses of other space (UNISPACE III), Viena and Graz, Austria, July 19 – 30, 1999
7. Organization of the American States Scholarship to participate in the "Radioelectric Spectrum Management" course, Mexico D.F. November 23 – 27, 1998.
8. "Summer Undergraduate Research Fellowships (SURF)", California Institute of Technology research at the NASA Jet Propulsion Laboratory (JPL/NASA). July - September 1997
9. First Place at the student category at the First National Science and Technology Contest of Honduras, organized by the National Council for Science and Technology (COHCIT), April 1997.
10. Traineeship at the European Space Agency Satellite Tracking Station in Villa Franca del Castillo, Madrid, Spain April 1996.

### **Relevant/Recent International Field Work**

1. Campeche, Mexico; Belize; San Salvador, The Bahamas & Peten, Guatemala (July 2016) Archaeological and water balance studies.
2. Guatemala and Mexico (March 16 – April 3, 2015), archaeological mapping projects in Peten, Guatemala, Teotihuacan and Michoacan, Mexico.
3. Antarctica (December 1<sup>st</sup>, 2014 – January 19<sup>th</sup>, 2015), LiDAR mapping of the Antarctic Dry Valleys as part as the NSF funded project C-517 "The McMurdo Dry Valleys: A Landscape on the Threshold of Change".
4. Mexico (May 12-25 & July 1-3, 2014) NCALM 2014 Mexico campaign (Veracruz, Merida, Campeche, Baja California) multiple archaeological and geological mapping projects.
5. New Zealand (March 8-24, 2014) LiDAR mapping of the Marlborough Fault System as part of the NSF funded project "Collaborative Research: Towards an Understanding of the Collective Behavior of Regional Fault Networks".
6. Hawaii (January 30 – February 18, 2013) Geologic LiDAR mapping of multiples sites on Hawaii and Kauai funded by NSF and USGS.
7. Belize (April 23 – May 12, 2013) LiDAR archaeological mapping of Central-Western Belize.
8. Honduras (April 28 – May 17, 2012) Archaeological prospection of the Honduran Mosquitia with LiDAR for UTL scientific.

Updated: January 1, 2017