

## **Dr. Michael J. Starek**

Texas A&M University-Corpus Christi  
Science & Engineering, Computing Sciences  
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michael.starek@tamucc.edu

### **Education**

PhD, University of Florida, 2009.

MS, Texas A&M University-Corpus Christi, 2002.

BS, Texas A&M University-Corpus Christi, 1999.

### **Licensures and Certifications**

Certification in Challenged Based Instruction, UTPA Center of Excellence in Stem Education. (2015 - Present).

Riegl Certification in Terrestrial Laser Scanning Data Processing, Riegl. (2014 - Present).

Optech certification in ALTM airborne LiDAR data processing, Optech. (2007 - Present).

### **Professional Employment**

Assistant Professor, Texas A&M University-Corpus Christi. (January 2014 - Present).  
teach, mentor students, serve, develop/conduct research; affiliated with the geospatial engineering and coastal and marine systems science program

Associate Research Scientist, Harte Research Institute for Gulf of Mexico Studies. (June 2012 - January 2014).

Conduct and develop research related to coastal geoinformatics and coastal modeling/engineering; mentor students and teach

Research Assistant Professor, North Carolina State University. (June 2011 - May 2012).

Conduct/develop research, mentor students, assist with course lectures.

Note: Faculty vote approved change of title from Research Associate to Research Assistant Professor in November 2011.

National Research Council Postdoctoral Fellow, US Army Research Office. (June 2009 - June 2011).

Conducted independent research supported by the US Army research office in coordination with North Carolina State University.

Graduate Research Fellow, University of Florida. (May 2004 - April 2009).

Conducted geomatics and coastal engineering research as a graduate student. I was a joint member of the Adaptive Signal Processing Laboratory and the Geosensing Engineering and Mapping Center with the National Center for Airborne Laser Mapping. My position was funded by a University of Florida Alumni Fellowship.

### **Professional Memberships**

Association for Unmanned Vehicle Systems International  
American Society of Civil Engineering  
American Shore and Beach Preservation Association

IEEE Geoscience and Remote Sensing Society  
Institute of Electrical and Electronics Engineers  
American Society of Photogrammetry and Remote Sensing  
American Geophysical Union

## TEACHING

### Teaching Experience

CMSS 6330, SPATIAL SYSTEM SCIENCE  
CMSS 6996, RESEARCH  
GISC 4431, REMOTE SENSING  
GISC 4596, Directed Independent Study: Digital Terrain Modeling with Engineering Applications  
GSCS 6102, GRADUATE SEMINAR  
GSCS 6996, RESEARCH  
GSEN 5385, ANALY-DIGITAL PHOTOGRAMMET ENG  
GSEN 5396, DIRECTED INDEPENDENT STUDY: Digital Terrain Modeling w/Engineering Applications  
GSEN 5993, GRADUATE CREATIVE PROJECT  
GSEN 5997, GRADUATE THESIS RESEARCH  
GSEN 5998, GRADUATE THESIS

### Non-Credit Instruction

Surveyor in Training Exam Preparation Course, TAMUCC GISSO. (October 2015 - Present).  
Surveyor in Training Exam Preparation Course, TAMUCC GISSO. (April 2015 - Present).  
UAS for Marine Applications, University of Florida. (November 2016).  
UAS for Surveying and Mapping. (November 2016).  
UAS for Surveying and Mapping. (April 2016).  
Overview on Lidar Mapping. (April 2015).

## SCHOLARLY AND CREATIVE ACTIVITIES

### Publications

#### Refereed

##### Book Chapters

Starek, M. J., Harmon, R., Mitasova, H. (2016). Fort Fisher, NC Past and Present: A Geospatial Analysis using LiDAR and GIS. In McDonald, E.V. and Bullard, T, Eds (Ed.), *Military Geoscience: Past Lessons and Modern Challenges*. New York: Springer.

Starek, M. J. (2016). Airborne Laser Terrain Mapping (ALTM). In Michael J. Kennish (Ed.), *Encyclopedia of Estuaries* (pp. 4-7). Springer.

Starek, M. J. (2016). Light Detection and Ranging (LIDAR). In Michael J. Kennish (Ed.), *Encyclopedia of Estuaries* (pp. 383-384). Springer.

Starek, M. J., Slatton, K. C., Shrestha, R. L., Carter, W. E. (2009). Airborne Lidar Measurements to Quantify Change in Sandy Beaches. *Laser Scanning for the Environmental Sciences*. Wiley-Blackwell.

## Conference Proceedings

Yang, C., Landivar, J., Maeda, M., Jung, J., Starek, M. J., Chu, T., Chang, A. (2017). *Comparison of aerial imagery from manned and unmanned aircraft platforms for monitoring cotton growth* (pp. 6). Proceedings of 2017 Beltwide Cotton Conference.

Lee, H., Starek, M. J., Blundell, S. Bruce, Gard, C., Puffenberger, H., Schwind, M. (2015). Probabilistic clutter maps of forested terrain from airborne LiDAR point clouds. *IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Milan, 2015* (pp. 2654-2657). IEEE.  
[ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7326358&isnumber=7325670](http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7326358&isnumber=7325670)

Starek, M. J., Davis, T., Prouty, D., Berryhill, J. (2014). Small-scale UAS for Geoinformatics Applications on an Island Campus, 2014. *Proceedings of IEEE Ubiquitous Positioning, Indoor Navigation, and Location-based Services* (pp. 120-127). IEEE.  
<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7033718&isnumber=7033700>

Pan, Z., Glennie, C., Fernandez-Diaz, J.C, Starek, M. J. (2014). Shallow Water Seagrass Observed by High Resolution Full Waveform Bathymetric Lidar. *Proceedings of IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Quebec City, Canada, 2014* (pp. 1341 - 1344). IEEE.  
<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6946682&isnumber=6946328>

## Journal Articles

Chu, T., Landivar, J. A., Maeda, M. M., Yang, C., Starek, M. J. (2016). Cotton growth modeling and assessment using unmanned aircraft system visual-band imagery. *Journal of Applied Remote Sensing*, 10(3).

Lee, H., Starek, M. J., Blundell, S. Bruce, Schwind, M., Gard, C., Puffenberger, H. (2016). Estimation of 2D Clutter Maps in Complex Under-Canopy Environments from Airborne Discrete-Return Lidar. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS)*, 1 - 11.  
[ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7457211](http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7457211)

Pan, Z., Glennie, C., Fernandez-Diaz, J. C., Starek, M. J. (2016). Comparison of bathymetry and seagrass mapping with hyperspectral imagery and airborne bathymetric lidar in a shallow estuarine environment. *International Journal of Remote Sensing*, 37(3), 516-536.  
[www.tandfonline.com/doi/abs/10.1080/01431161.2015.1131869](http://www.tandfonline.com/doi/abs/10.1080/01431161.2015.1131869)

Lyons, N., Starek, M. J., Wegmann, K., Mitasova, H. (2015). Bank erosion of legacy sediment at the transition from vertical to lateral stream incision. *Earth Surfaces Processes and Landforms*, 40(13), 1764-1778. [onlinelibrary.wiley.com/doi/10.1002/esp.3753/abstract](http://onlinelibrary.wiley.com/doi/10.1002/esp.3753/abstract)

Barraza Lizarraga, E., Gibeaut, J., Yoskowitz, D. W., Starek, M. J. (2015). Assessment and monetary valuation of the storm protection function of beaches and foredunes on the Texas coast. *Journal of Coastal Research*, 31(5), 1205-1216. [dx.doi.org/10.2112/JCOASTRES-D-14-00133.1](http://dx.doi.org/10.2112/JCOASTRES-D-14-00133.1)

Starek, M. J., Mitasova, H., Wegmann, K., Lyons, N. (2013). Space-Time Cube Representation of Stream Bank Evolution Mapped by Terrestrial Laser Scanning. *Geoscience and Remote Sensing Letters*, 10(6), 1369 - 1373.

Lee, H., Blundell, B., Starek, M. J., Harris, J. (2013). An Airborne Lidar Point Cloud-based Below-canopy Line-of-Sight Visibility Estimator. *Journal of Applied Remote Sensing*, 7(1), 8.

Paris, P., Starek, M. J., Hardin, E., Kurum, O., Overton, M., Mitasova, H. (2013). Lines in the Sand: Geomorphic and Geospatial Characterization and Interpretation of Sandy Shorelines and Beaches. *Geography Compass*, 7(5), 315–343.  
[onlinelibrary.wiley.com/doi/10.1111/gec3.12041/full](http://onlinelibrary.wiley.com/doi/10.1111/gec3.12041/full)

Starek, M. J., Vemula, R., Slatton, K. C. (2012). Probabilistic Detection of Morphologic Indicators for Beach Segmentation with Lidar Time Series. *Transactions on Geoscience and Remote Sensing*, 50(11), 4759 - 4770.

Starek, M. J., Mitasova, H., Hardin, E., Weaver, K., Overton, M., Harmon, R. S. (2011). Modeling Landscape Evolution at Multiple Scales Using Airborne, Ground, and Laboratory Laser Scanning. *Geosphere*, 7(6), 1340-1356.  
[geosphere.gsapubs.org/content/7/6/1340.abstract](http://geosphere.gsapubs.org/content/7/6/1340.abstract)

Kennedy, A., Slatton, K. C., Hsu, T.-J., Starek, M. J., Kampa, K. (2008). Ephemeral Sand Waves in the Hurricane Surf Zone. *Marine Geology*, 250(3-4).  
[dx.doi.org/10.1016/j.margeo.2008.01.015](http://dx.doi.org/10.1016/j.margeo.2008.01.015)

#### Periodicals

Jung, J., Starek, M. J., Chang, A. (2015). *LiDAR research at the Island University* (3rd ed., vol. 5, pp. 55-59). LiDAR News.

Starek, M. J., Jung, J. (2015). *The state of LiDAR for UAS applications: LiDAR's next geospatial frontier* (25-27 ed., vol. UAS Special). GIM International.

#### Non-Refereed

##### Periodicals

Davis, T., Starek, M. J. (2014). In GIM International (Ed.), *UAS Campus Survey Project* (25-27 ed., vol. UAS Special). GIM International. [www.gim-international.com/content/article/uas-campus-survey-project](http://www.gim-international.com/content/article/uas-campus-survey-project)

##### Abstract

Gibeaut, J., Taylor, E. B., Del Angel, D., Reisinger, A. A., Starek, M. J. (2014). *Living with Sea Level Rise on Texas Barrier Islands* (vol. Abstract ID:15545). Honolulu, Hawaii: Ocean Sciences Meeting, American Geophysical Union (AGU). <http://www.eposters.net/pdfs/living-with-sea-level-rise-on-texas-barrier-islands.pdf>

#### Presentations

Nguyen, C. (Author & Presenter), Starek, M. J. (Author), Tissot, P., Gibeaut, J., "Multi-Scale Voxel Segmentation for Terrestrial Lidar Data within Marshes," American Geophysical Union Annual Conference, AGU, San Francisco, CA. (December 13, 2016).

Odvody, G. (Author & Presenter), Murray, S. (Author), Maeda, M. (Author), Jung, J., Starek, M. J., Chu, T., "UAV imaging of corn hybrid response to southern rust and progression to charcoal stalk rot," 28th annual Texas Plant Protection Conference, Bryan, Texas. (December 7, 2016).

Murray, S. (Author & Presenter), Richardson, G. (Author), Malambo, L. (Author), Shi, Y. (Author), Hartley, B. (Author), Demieville, J. (Author), Thomasson, A. (Author), Popescu, S. (Author), Cope, D. (Author), Olsenholler, J. (Author), Bishop, M. (Author), Valasek, J. (Author), Dong, X. (Author), Rooney, W. (Author), Oliver, G. (Author), Ratcliff, C. (Author), Baltensperger, D. (Author), Maeda,

M. (Author), Jung, J. (Author), Starek, M. J. (Author), Brewer, M. (Author), Landivar, J. (Author), "Temporal Estimates of Maize Plant Growth in a Breeding Program Using Ground Based and Unmanned Aerial Vehicle Systems," ASA, CSSA and SSSA International Annual Meeting (2016), The American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Phoenix, AZ. (November 8, 2016).

Starek, M. J. (Author), Nazeri, B. (Author & Presenter), "Active and Passive Imaging of Submerge Structures in Shallow Coastal Water," ASBPA Annual Conference, American Shore and Beach Preservation Association (ASBPA), Long Branch, NJ. (October 28, 2016).

Schwind, M. (Author), Starek, M. J. (Author), "Utilizing High-resolution LiDAR Observations of Rookery Islands in the Upper Laguna Madre to Define a Monitoring Benchmark," ASBPA Annual Conference, American Shore and Beach Preservation Association (ASBPA), Long Branch, NJ. (October 28, 2016).

Starek, M. J. (Author), "UAS Photo-Bathymetry in Shallow Coastal Water: Challenges and Potential," TCC of Houston Remote Sensing Technology Meeting, Technology Collaboration Center of Houston, NASA Johnson Space Center. (October 12, 2016).

Starek, M. J. (Panelist), "Unmanned Aircraft Systems (UAS) for Coastal Observation," Global Marine Sustainability Workshop, The Scottish Association for Marine Science, Oben, Scotland. (September 21, 2016).

Starek, M. J. (Presenter), TAMUK UAV Workshop, Texas A&M AgriLife, Kingsville, TX. (September 16, 2016).

Starek, M. J. (Presenter), "MANTIS Research Vision," Conrad Blucher Institute Annual Retreat, CBI, TAMU-CC. (August 18, 2016).

Starek, M. J. (Presenter), "UAS Platforms, Software, and Sensors," UAS Luncheon of Corpus Christi, Del Mar College and TAMU-CC, Del Mar College. (August 17, 2016).

Starek, M. J. (Presenter), Brewer, M. (Presenter), "Update on UAS Remote Sensing Activities with AgriLife," TAMU AgriLife and TAMU-CC UAS Workshop, TAMU AgriLife, Robstown, TX. (August 1, 2016).

Starek, M. J. (Presenter), Schwind, M. (Presenter), "MANTIS: Measurement Analytics Lab," TAMU-CC and University of Houston UAS Meeting, TAMU-CC / LSUASC, Lone Star UAS Center. (July 27, 2016).

Starek, M. J. (Author & Presenter), Nazeri, B. (Author), "2D and 3D SfM Mapping of the Coastal Zone with UAS," 17th Annual JALBTCX Airborne Coastal Mapping and Charting Workshop, USACE, Silver Springs, MD. (July 19, 2016).

Starek, M. J., "Research Synopsis of MANTIS: Measurement Analytics Lab," US Army TAMU-CC Campus Visit, TAMU-CC. (June 28, 2016).

Starek, M. J. (Presenter), "Update on UAS Coastal Activities at the Lone Star UAS Test Site," Scientific Committee for Oceanographic Aircraft Research (SCOAR), University National Oceanographic Laboratory Systems (UNOLS) SCOAR, Monterey, CA (presented remotely). (June 27, 2016).

Starek, M. J. (Presenter), "The Geospatial Revolution: Lasers and Drones," Rotary Club Luncheon, Rotary Club, Corpus Christi Downtown Rotary Club. (June 2, 2016).

Starek, M. J. (Presenter), "Revealing Patterns in the Sand: "Geospatial Analytics of Evolving Coastlines with Lasers and Drones"," University of Florida School of Forest Resources and Conservation Seminar Talk, University of Florida, Gainesville, FL. (May 25, 2016).

Starek, M. J. (Presenter), "The Geospatial Revolution Lasers and Drones," Rotary Club Luncheon, Rotary Club, Southside Rotary Club. (April 20, 2016).

Lopez, M. (Author & Presenter), Yoskowitz, D. W. (Author), Dillard, M. (Author), Starek, M. J. (Author), "Assessing the Public Attitudes and Preferences of the Mission-Aransas National Estuarine Research Reserve, Texas Using Social Valuation," Texas Bays and Estuaries Meeting, NOAA NERR and UTMSI, Port Aransas, TX. (April 13, 2016).

Nazeri, B. (Author & Presenter), Starek, M. J. (Author), "Comparison of Aerial Surveying Techniques for Mapping Submerged Structures in Shallow Coastal Water," ASPRS Imaging and Geospatial Technology Forum, American Society of Photogrammetry and Remote Sensing (ASPRS), Fort Worth, TX. (April 12, 2016).

Schwnd, M. (Author & Presenter), Starek, M. J. (Author), "High-resolution Lidar Observations of Rookery Islands in the Upper Laguna Madre to Define a Monitoring Benchmark," ASPRS Imaging and Geospatial Technology Forum, American Society of Photogrammetry and Remote Sensing (ASPRS), Fort Worth, TX. (April 12, 2016).

Nguyen, C. (Author & Presenter), Starek, M. J. (Author), Tissot, P., "Neural Network Approach for Predicting TLS Measurement Error within Marshes," ASPRS Imaging and Geospatial Technology Forum, American Society of Photogrammetry and Remote Sensing (ASPRS), Fort Worth, TX. (April 12, 2016).

Stanton, C. (Author & Presenter), Starek, M. J. (Author), "UAS-Derived Crop Height and NDVI Measure of Sorghum Yield," ASPRS Imaging and Geospatial Technology Forum, American Society of Photogrammetry and Remote Sensing (ASPRS), Fort Worth, TX. (April 12, 2016).

Starek, M. J. (Author & Presenter), Lyle, S. (Author), Garrett, J. (Author), Berryhill, J. (Author), "UAS Land Survey Data Model and Workflow Evaluation for Oil and Gas Industry," Texas UAS Summit 2016, UAS Magazine, Austin, TX. (March 31, 2016).

Schwind, M. (Author & Presenter), Starek, M. J. (Author), Lee, H. (Author), Blundell, B. (Author), "Development of Optimized Bare-Earth Surface Models for Mobility Operations in Forested, Mountainous Terrain," American Association of Geographers Annual Conference, American Association of Geographers, San Francisco, CA. (March 29, 2016).

Starek, M. J. (Author & Presenter), Giessel, J. (Author), "Investigation of UAS-based SfM Photogrammetry and Bathymetric Inversion for Mapping a Shallow Water," AGU Ocean Sciences, AGU, New Orleans, LA. (February 2016).

Starek, M. J. (Author & Presenter), Berryhill, J. (Author), "Review of UAS Technology for Photogrammetry and Remote Sensing Applications in Resource Monitoring," Society of Range Management 69th Annual Conference, Society of Range Management. (February 2016).

Starek, M. J. (Author & Presenter), Berryhill, J. (Author), "Review of UAS Technology for Photogrammetry and Remote Sensing Applications in Resource Monitoring," AgriLife Remote Sensing Symposium, Texas A&M University AgriLife, Robstown, TX. (February 4, 2016).

Nguyen, C. (Author & Presenter), Starek, M. J. (Author), Gibeaut, J., "Geodetic Imaging of Marsh Surface Elevation with Terrestrial Laser Scanning," American Geophysical Union Fall Conference, AGU, San Francisco, CA. (December 18, 2015).

Starek, M. J., "Airborne Lidar and 3D SfM Mapping with UAS," 17th Annual Coastal Bend GIS Day, Del Mar, TAMUCC, TAMUK, Corpus Christi, TX. (November 17, 2015).

Erwin, C. (Author & Presenter), Starek, M. J. (Author), Brewer, M. (Author), "Unmanned Aerial Systems-Derived NDVI Measure of Sorghum Yield," 17th Annual Coastal Bend GIS Day, Del Mar, TAMUCC, TAMUK, Corpus Christi, TX. (November 17, 2015).

Starek, M. J., "Aerial Mapping of Coastlines with Lasers and Drones," SACNAS National Conference, Society for Advancement of Chicanos/Hispanics and Native Americans in Science, National Harbor, MD. (October 31, 2015).

Starek, M. J. (Author & Presenter), Lyle, S. (Author), Berryhill, J. (Author), "LSDM Workflow & Analysis of Topographic Surface Using Different UAS Solutions," Association of Petroleum Surveying and Geomatics (APSG) Fall Meeting, APSG, Anadarko Petroleum, Woodlands, TX. (October 29, 2015).

Lyle, S. (Author & Presenter), Starek, M. J. (Author), Garrett, J., "Land Survey Data Model for UAS Survey Measurement," IOPG Geomatics Committee Meeting, International Association of Oil & Gas Producers, Houston, TX. (October 28, 2015).

Schwind, M. (Author & Presenter), Starek, M. J. (Author), Lee, H. (Author), Blundell, B. (Author), "Development of Clutter Maps within Complex Terrain Using Airborne LiDAR Data," Texas A&M University System 12th Annual Pathways Student Research Symposium, TAMU, Corpus Christi, TX. (October 22, 2015).

Erwin, C. (Author & Presenter), Starek, M. J. (Author), Brewer, M. (Author), "Unmanned Aerial Systems-Derived NDVI Measure of Sorghum Yield," Texas A&M University System 12th Annual Pathways Student Research Symposium, TAMU, Corpus Christi, TX. (October 22, 2015).

Starek, M. J. (Author & Presenter), Giessel, J. (Author), "Seamless Topo-Bathymetric Mapping of the Littoral Zone with UAS-based SfM Photogrammetry," American Shore and Beach Preservation Association (ASBPA) Annual Conference, ASBPA, New Orleans, LA. (October 15, 2015).

Starek, M. J. (Author & Presenter), Giessel, J. (Author), "2D and 3D Mapping of the Littoral Zone with UAS and Optical Inversion," Texas Beach and Dune Workshop, Harte Research Institute, Corpus Christi, TX. (September 24, 2015).

Starek, M. J., "Unmanned Aerial Systems (UAS) for Surveying and Mapping," Rotary Club of Corpus Christi, Rotary Club, Corpus Christi, TX. (August 28, 2015).

Starek, M. J., "UAS for GIS," Regional CompStat Meeting for Policing, TAMUCC Police Department, Texas A&M University-Corpus Christi. (August 20, 2015).

Starek, M. J. (Author & Presenter), Lee, H. (Author), Blundell, S. Bruce (Author), Gard, C. (Author), Puffenberger, H. (Author), Schwind, M. (Author), "Probabilistic clutter maps of forested terrain from airborne LiDAR point clouds," International Geoscience and Remote Sensing Symposium (IGARSS), IEEE, Milan, Italy. (July 28, 2015).

Starek, M. J. (Author & Presenter), Giessel, J. (Author), "2D and 3D SfM Mapping of the Coastal Zone with UAS," 16th Annual USACE JALBTCX Airborne Coastal Mapping and Charting Workshop, USACE, Corvallis, OR. (June 18, 2015).

Starek, M. J. (Author & Presenter), Bridges, D. (Author), Willis, M. (Author), "Update on UAS Coastal Activities at the Lone Star UAS Test Site," UNOLS Scientific Committee on Oceanographic Airborne Research (SCOAR), UNOLS, Miami, FL. (May 7, 2015).

Nelson, J. (Author & Presenter), Betz, D. (Author), Starek, M. J. (Author), "GIS in Emergency Management," Coastal Bend Hurricane Conference, Corpus Christi, TX. (May 6, 2015).

Starek, M. J. (Author & Presenter), Giessel, J. (Author), "2D and 3D Mapping of a Littoral Zone with UAS and SFM Photogrammetry," Imaging and Geospatial Technology Forum (IGTF) Annual Conference, American Society of Photogrammetry and Remote Sensing (ASPRS), Tampa Bay, FL. (May 6, 2015).

Braddy, S. (Author & Presenter), Yoskowitz, D. W. (Author), Starek, M. J. (Author), Lee, J. (Author), "DEPLOYMENT OF TEXAS'S ARTIFICIAL REEFS FOR ECONOMIC ENHANCEMENT," Coastal GeoTools, NOAA, Charleston, SC. (March 31, 2015).

Starek, M. J., "Revealing Patterns in the Sand: Geospatial Analytics of Evolving Coastlines with Lasers and Drones," Oregon State University Department of Civil and Construction Engineering, Corvallis, Oregon. (March 11, 2015).

Starek, M. J., "Researcher Panel (STEM)," Undergraduate Research Day at the Capitol, Austin, TX. (March 4, 2015).

Jung, J. (Author & Presenter), Starek, M. J. (Author), Rahneemofar, M. (Author), Landivar, J. (Author), "High-throughput UAS-based phenotyping system in support of energy crop development," International Laser Mapping Forum 2015 - University Pavillion, ASPRS, Denver. (February 23, 2015).

Yoskowitz, D. W. (Author & Presenter), Braddy, S. (Author), Starek, M. J. (Author), "Economic Impacts of Recreational Scuba Diving on Texas's Local Economy," Business & Economics Society International, Las Vegas, NV. (January 2015).

Starek, M. J. (Author & Presenter), Bridges, D. (Author), Prouty, D. (Author), Williams, D. (Author), Jeffress, G. A. (Author), "Monitoring Coastal Processes at Local and Regional Geographic Scales with UAS," AGU Fall Meeting, American Geophysical Union, San Francisco, CA. (December 18, 2014).

Starek, M. J. (Author & Presenter), Bridges, D. (Author), "Unmanned Aircraft Systems for Coastal Mapping Applications," American Shore and Beach Preservation Association Conference, American Shore and Beach Preservation Association, Virginia Beach, VA. (October 18, 2014).

Starek, M. J. (Author & Presenter), Bridges, D. (Author), Davis, T. (Author), George, R. (Author), "UAS Coastal Mapping at an Island Campus," 15th Annual Coastal Charting and Mapping Workshop, UASCE Joint Airborne Lidar Bathymetric Technical Center of Expertise, Mobile, AL. (June 10, 2014).

Starek, M. J. (Author & Presenter), Bridges, D. (Author), Gibeaut, J. (Author), Tissot, P. (Author), "Unmanned Aerial System for Coastal Reconnaissance of the Near-shore Zone," ASPRS Annual Conference, American Society for Photogrammetry and Remote Sensing, Louisville, KY. (March 25, 2014).

## **Contracts, Grants and Sponsored Research**

### **Contract**

Starek, Michael John (Principal), Williams, Deidre (Co-Principal), "UAS Beach Survey of Mustang Island," Sponsored by City of Corpus Christi, Local, \$20,000.00. (September 1, 2015 - December 31, 2017).



Starek, Michael John (Principal), "Campus Student Surveying Project," Sponsored by TAMUCC (Contract and Property Office), Texas A&M University-Corpus Christi, \$30,000.00. (September 1, 2015 - August 31, 2017).

Starek, Michael John (Principal), "TPWD UAV Survey of Sea Grass Scarring," Sponsored by TPWD, State, \$5,000.00. (December 1, 2015 - November 30, 2016).

Starek, Michael John (Principal), "UAV Survey for BP/JAG Geomatics," Sponsored by British Petroleum and JAG Geomatics, Private, \$7,500.00. (September 1, 2015 - April 10, 2016).

## Grant

Jung, Jinha (Co-Principal), Fox, Joe M (Principal), Starek, Michael John (Co-Principal), "Experiential training in use of UAS technology for agriculture applications," Sponsored by National Institute of Food and Agriculture, \$995,829.00. (June 1, 2016 - May 31, 2020).

Bridges, David (Co-Principal), Mahdy, Ahmed Mahmoud (Principal), Gibeaut, James (Co-Principal), Coffin, Richard (Co-Principal), Starek, Michael John (Co-Principal), "MRI: Development of an Integrated Gas Monitoring and Source Identification Unmanned Aircraft System for Exploration, Compliance and Assessment," Sponsored by National Science Foundation, Federal, \$539,998.00. (September 1, 2016 - August 31, 2019).

Starek, Michael John (Principal), Davis, Phil (Principal), "Unmanned Aircraft System Technology Education Consortium (UASTEC)," Sponsored by NSF, Federal, \$780,000.00. (September 1, 2016 - August 31, 2019).

Jeffress, Gary A. (Principal), Starek, Michael John (Co-Principal), Rizzo, James (Co-Principal), "Regional Geospatial Modeling," Sponsored by NOAA/NGS, Federal, \$1,036,546.00. (October 1, 2016 - September 30, 2017).

Starek, Michael John, "Development and Validation of a UAS-based Sensing Platform for Monitoring the Growth and Health of Cotton," Sponsored by Cotton Incorporated, Private, \$30,000.00. (January 1, 2016 - January 24, 2017).

Jeffress, Gary A. (Principal), Starek, Michael John (Co-Principal), Rizzo, James (Co-Principal), Chen, Ruizhi, "Regional Geospatial Modeling," Sponsored by NOAA/NGS, Federal, \$550,000.00. (October 1, 2015 - September 30, 2016).

Starek, Michael John (Co-Principal), Foster, Jamie (Principal), "Improving Sustainability of Livestock and Wildlife Management Using Remote Sensing Technology," Sponsored by Texas A&M AgriLife, State, \$25,000.00. (September 1, 2015 - August 31, 2016).

Starek, Michael John (Principal), Gibeaut, James (Co-Principal), "High-Resolution Lidar Observations of Rookery Islands to Define A Monitoring Benchmark," Sponsored by CMP/NOAA, State, \$93,000.00. (October 2014 - June 2016).

Starek, Michael John (Principal), Gibeaut, James (Co-Principal), "Development of Geospatial Techniques for a Marsh Observatory through the Integration of UAS and Field Measurements," Sponsored by Texas Research Development Funding, State, \$20,000.00. (September 1, 2014 - August 31, 2015).

Chen, Ruizhi (Co-Principal), Jeffress, Gary A. (Principal), Starek, Michael John (Co-Principal), Rizzo, James (Co-Principal), "Regional Geospatial Modeling," Sponsored by NOAA/NGS, Federal, \$1,350,364.00. (September 1, 2013 - August 31, 2015).

## Sponsored Research

Starek, Michael John, "Remote Sensing by UAV to Detect Sugarcane Aphid in Sorghum," Sponsored by USDA, Federal, \$60,000.00. (September 15, 2016 - September 14, 2019).

Starek, Michael John (Principal), "UAS Rangeland Applications," Sponsored by AgriLife, State, \$20,000.00. (September 1, 2016 - August 31, 2018).

Starek, Michael John (Principal), Lee, Heezin (Co-Principal), "Development of Probabilistic Clutter Maps within Complex Forested Terrain," Sponsored by USACE ERDC, Federal, \$109,000.00. (October 1, 2014 - January 31, 2016).

## Scholarly and Creative Awards and Honors

National Research Council / ARO Research Associateship, NRC/ US Army Research Office. (2009).

National Research Council / AFRL Research Associateship, NRC / US Air Force Research Lab. (2009).

International Science and Engineering Visualization Challenge, National Science Foundation and the Journal Science. (2007).

Chi Epsilon Civil Engineering Honor Society Inductee, Chi Epsilon. (2007).

Alumni Fellowship, University of Florida. (2004).

Graduate Scholarship in Computer Science for Excellence in Academic Achievement and Research, •Texas A&M University-Corpus Christi Dept. of Science & Technology. (2001).

Graduated Summa Cum Laude, Texas A&M University-Corpus Christi. (1998).

## SERVICE

### Department

Committee Member, Geospatial Computing Sciences Steering Committee. (January 2015 - Present).

Attendee, Meeting, GISC Academic Advising Committee Meeting. (October 2016).

Committee Member, Department of Computing Sciences Research Committee. (September 2015 - August 2016).

GISC Touch of Class Presenter for Island Days, GISC Touch of Class Presenter for Island Days. (February 2016).

Attendee, Meeting, GISC Academic Advising Committee Meeting. (November 2015).

GISC Touch of Class Presenter for Island Days, GISC Touch of Class Presenter for Island Days. (October 2015).

Committee Member, GISC Faculty Search Committee. (January 2015 - August 2015).

GISC Touch of Class Presenter for Island Days, GISC Touch of Class Presenter for Island Days. (April 2015).

### College

Committee Member, Scholarship Committee. (September 2014 - August 2017).

Faculty Senate Representative for S&E. (May 2015 - April 2017).

Committee Member, 2016 SACNAS Conference. (October 2016).

Attendee, Meeting, Scottish Association for Marine Science Global Sustainability Workshop. (September 2016).

Committee Member, Honors Council. (September 2014 - August 2016).

Attendee, Meeting, Army Material Command Chief Technical Officer Visit. (June 2016).

Attendee, Meeting, 2016 TEES Annual Research Conference. (May 2016).  
Committee Member, 2015 SACNAS Conference. (October 2015).  
Chaperone for visiting lecturer Alex Ferworn, S&E Distinguished Lecture Series. (January 2015).

## University

Committee Member, University Scholarship Committee. (September 2014 - August 2017).  
University Senate Service, Council of Principal Investigators and Research Administrators. (September 2015 - May 2017).  
University Senate Service, Committee on Committees. (May 2015 - April 2017).  
Facilitator, MOU Between UASCE New Orleans and TAMUCC/CBI. (March 2015).  
Guest Speaker, Undergraduate Research Day at the Capitol. (March 2015).

## Professional

Committee Chair, ASPRS Remote Sensing Applications Division: Marine Working Group. (October 2016 - Present).  
Editorial Review Board Member, ASCE Journal of Surveying Engineering. (December 2015 - Present).  
Committee Member, ASCE UESI Geomatics Committee. (June 2015 - Present).  
Institutional Representative, UNAVCO. (May 2015 - Present).  
Reviewer, Journal Article, Journal of Applied Remote Sensing. (January 2015 - Present).  
Reviewer, Journal Article, International Journal of Remote Sensing. (January 2014 - Present).  
Reviewer, Conference Paper, SACNAS Conference. (January 2014 - Present).  
Reviewer, Journal Article, Photogrammetric Engineering and Remote Sensing. (January 2013 - Present).  
Reviewer, Journal Article, Shore and Beach. (January 2013 - Present).  
Reviewer, Journal Article, Remote Sensing - an open access journal. (January 2012 - Present).  
Reviewer, Journal Article, Journal of Applied Geomatics. (2011 - Present).  
Reviewer, Journal Article, IEEE Geoscience and Remote Sensing Letters (GRSL). (January 2009 - Present).  
Reviewer, Journal Article, IEEE Transactions on Geosciences and Remote Sensing (TGRS). (January 2009 - Present).  
Conference-Related, IEEE International Geoscience and Remote Sensing Symposium. (September 2008 - Present).  
Officer, Treasurer, IEEE Corpus Christi Section. (March 2015 - February 2017).  
Committee Member, American Society of Shore and Beach (ASBPA) Student and New Professional Committee. (September 2014 - December 2016).  
Session Chair, SACNAS Annual Conference 2016. (October 2016).  
Session Chair, AGU Ocean Sciences: Autonomous Systems for Coastal and Estuarine Processes. (February 2016).  
Reviewer, Textbook, Blue Book II - Airborne Hydrographic Laser Scanning. (August 2015 - October 2015).  
Session Chair, SACNAS Annual Conference 2015. (October 2015).  
Reviewer, Grant Proposal, National Fish and Wildlife Foundation (NFWF) Gulf Conservation Grants. (June 2015).  
Reviewer, Grant Proposal, NOAA Sea Grant Georgia. (April 2015).  
Reviewer, Journal Article, Journal of Coastal Research. (January 2015).  
Reviewer, Grant Proposal, UASCE ERDC and ARO. (2011 - 2013).

## Public

Attendee, Meeting, Lone Star UAS Center with iCORE Outreach to Students. (January 2015 - Present).  
Attendee, Meeting, Coastal Bend GIS Day. (November 2016).

Guest Speaker, Corpus Christi UAS Luncheon. (August 2016).  
Guest Speaker, Corpus Christi Downtown Rotary Club Presenter. (June 2016).  
Guest Speaker, Corpus Christi Southside Rotary Club Presenter. (April 2016).  
Guest Speaker, AgriLife Remote Sensing Workshop. (February 2016).  
Guest Speaker, Coastal Bend GIS Day. (November 2015).  
Guest Speaker, Corpus Christi Rotary Club Presenter. (August 2015).  
Meeting Attendant and Presenter, UAS Outreach to Regional ISD Superintendents. (February 2015).

### **Service Awards and Honors**

Lights & Mirrors Award, USACE. (2011).