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ROLES: Undergraduate Student  
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DISCIPLINES: Geomatics Engineering (Surveying: Hydrographic,  
Cadastral, Topographic; GIS: Spatial Modelling.)

KEYWORDS: Hydrographic, Cadastral, Topographic, GIS



## RESEARCH INTERESTS:

Climate change is a critical issue that has been receiving massive attention globally because its impacts are deemed to have adverse effects on the earth and human societies. Of recent, Sea Level Rise (SLR) as a result of climate change has been the topic of investigative reports especially along the coastlines of Small Island Developing States (SIDS). The study of the impact of sea level rise on coastal communities is very interesting and informative as it helps with preparation and adaptation of a community to the possible rise of sea level. The predictions of sea level rise that have been made by worldwide organizations such as Intergovernmental Panel on Climate Change (IPCC) can be used to create spatial models useful for SLR impact analysis.

Climate change potentially affects coastal communities of various socioeconomic and physical characteristics in the Caribbean region. For example, Georgetown, the capital of Guyana, lies on the coast of the country and is below mean sea level. Deleterious effects of climate change such as sea level rise are real threats to this urban center. Grande Riviere, on the other hand, is a coastal community that lies at the backshore of the Grande Riviere beach on the Northern coastline of Trinidad. This beach is famous for the sight-seeing of leatherback turtles that visit every year to nest on the beach. It is a very important tourist attraction and as a result has built a thriving economy for the community of Grande Riviere. As a result these coastal communities are ideal case studies for potential impacts of sea level rise and its consequent social, environmental and economic effects.

Farah, as part of the ICURA project entitled *Managing Adaptation to Environmental Change in Coastal Communities: Canada and the Caribbean* and in her requirement of her degree to complete a research report, used beach profile data over a number of years with GIS to create visual aspects of the extent of the impact of the predicted rise of sea level to Grande Riviere. Spatial analyses were performed on the datasets to determine more precisely the potential effects of sea level rise on the coastal community. Her project was supervised by Dr. Michael Sutherland.

## BIOGRAPHY:

Farah is a 22 year old undergraduate student at the University of the West Indies, St. Augustine campus, Department of Geomatics Engineering and Land Management. In June 2012 she will complete her B.Sc. in Geomatics Engineering. She intends to pursue a M.Sc. in GeoInformatics. She has worked as a research assistant in the Department of Geomatics Engineering and Land Management engaging in GIS and spatial analytical research.

Farah reports her involvement with the ICURA Project entitled *Managing Adaptation to Environmental Change in Coastal Communities: Canada and the Caribbean* as follows:

“My experience with collecting and processing data for this project was very enlightening. Field work, through beach profile data collection was an experience to be remembered. The field work was however adequately endured through the assistance I received from colleagues. Processing all data collected through ArcGIS 9.3 was an informative learning experience although challenging at times. The importance of the output of this project was appreciated and as such much care was taken to the accuracy with which work was done. All work done with respect to the analyses of the impacts of sea level rise on the coastal communities has been an overwhelmingly educational and has equipped me with adequate skills and experience.”