

**SSEC/CIMSS
Seminar**

ROUZBEH NAZARI

**Assistant Professor, Construction Management and Civil
Engineering at City University of New York,
Research Associate at NOAA-CREST**

**Development of an advanced technique for
mapping and monitoring sea and lake ice for the
future GOES-R Advanced Baseline Imager (ABI)**

Sea ice plays a major role in local and global climate, affects large regions and has important economic, environmental, social and transportation ramifications. About 15 % of the world's oceans are covered by sea ice during part of the year.

This research explores the potential of mapping ice cover with the next generation of the U.S. National Oceanic and Atmospheric Administration (NOAA) Geostationary Operational Environment Satellite, R Series (GOES-R) that is scheduled for launch in approximately 2015. The radiation parameters are planned to be derived from the Advanced Baseline Imager (ABI) observations.

A preliminary version of the ice-mapping algorithm has been developed for data in the Northern region of the Caspian Sea from the Spinning Enhanced Visible and Infrared Imager (SEVIRI) onboard the Meteosat Second Generation (MSG) satellite surrogating for ABI instrument. Despite improvement of the sensor capabilities and addition of spectral bands, sun angle illumination and reflectance variation in visible channels will remain a problem in new data processing. An answer to this issue lays in the development of an angle correction tool for derivation of steady and robust reflectance values for each band in order to accurately classify the target pixel.

Thursday, 21 July 2011

10:00 a.m.

Room AOSS 351