

Masdar Institute Launches Official IEEE Geoscience and Remote Sensing Society

*Earth-Observation and Hydro-Climatology Lab Playing Critical Role in
Advancing Region-Specific Research Projects at Masdar Institute*

Abu Dhabi-UAE: 30 March, 2015 – Masdar Institute of Science and Technology, an independent, research-driven graduate-level university focused on advanced energy and sustainable technologies, today announced that it has received approval for the formation of the UAE Chapter of the Institute of Electrical and Electronics Engineers' (IEEE) Geoscience and Remote Sensing Society (GRSS).

The letter of approval and the geo-code have been received by the UAE chapter, which has started the process of contacting professionals working in the field of remote sensing in the UAE. As part of the activities during the first year, the UAE Chapter will host a series of distinguished lecturers sponsored by the IEEE GRSS, along with organizing local meetings to share technical interests and foster collaborations.

The IEEE GRSS Chapter can also provide technical support to host remote sensing conferences in the UAE. In this regard, the chapter has already won the bid to host the Joint Urban Remote Sensing Event (JURSE) 2017 in Abu Dhabi and is planning to organize several regional workshops with active support from the Abu Dhabi Education Council and Abu Dhabi Tourism and Culture Authority.

“The main aim of establishing the IEEE GRSS chapter is to foster remote sensing research in the UAE,” said Dr. Prashanth Marpu, Chair, UAE Chapter of the IEEE GRSS. “Masdar Institute has established itself as a leading organization in this region in the field of remote sensing. We have a strong group of professors who are actively involved in remote sensing research. We are proud to take a leadership role in this initiative. The IEEE GRSS chapter will help us in bringing together the remote sensing researchers and professionals in the UAE. Our aim is to establish active collaborations with various universities, industry and government agencies in the UAE,” he added.

Faculty members that are part of the Institute's Earth-Observation and Hydro-Climatology Lab (EOHCL) have spearheaded key remote sensing research projects. . These faculty include Dr. Taha Ouarda, Professor and Head, Institute Center for Water and Environment (iWater); Dr. Hosni Ghedira, Director of the UAE Research Center for Renewable Energy Mapping and Assessment (ReCREMA) and Professor of Practice; Dr. Marouane Temimi Associate Professor; Dr. Prashanth Marpu Assistant Professor; and Dr. Annalisa Molini, Assistant Professor.

The EOHCL faculty are also presently involved in a joint four-year pilot study with the US National Aeronautics and Space Administration (NASA) to understand how the level of soil moisture affects dust emission in desert and dry environments. It had been selected by

NASA in 2011 to be one of seven global pre-launch test sites for a new earth observation Soil Moisture Active Passive (SMAP) satellite, which was launched by NASA in January 2015 (smap.jpl.nasa.gov).

Masdar Institute is actively engaged in many more remote sensing research and development projects. The faculty team is working on a diverse range of research projects with special focus on desert and arid climate such as urban heat island studies, studying coral reefs in the Gulf, modelling solar irradiance in the UAE, and studying river drainage networks in the Eastern region of the UAE; monitoring oil spills, algal blooms, solar resources, and dust storms; national-level water budget; land-atmosphere interactions; modelling of hydro-meteorological variables; and understanding the impacts of climate change in arid regions.

The EOHCL continues to play a critical role in driving these projects and bringing sustainable benefits, regionally and globally.

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About Masdar Institute

The Masdar Institute of Science and Technology (Masdar Institute) was established by the government of Abu Dhabi as a not-for-profit, private graduate university to develop indigenous R&D capacity in Abu Dhabi addressing issues of importance to the region.

In collaboration with the Massachusetts Institute of Technology (MIT), Masdar Institute has developed an academic and research platform that articulates its mission and vision according to critical energy and sustainability challenges. An important characteristic of Masdar Institute is its focus on complex real-world problems that require a multidisciplinary approach for the development of solutions from an integrated technology, systems and policy perspective. This multi-interdisciplinary and integrated approach is supported by the structure of its academic programs and by the emphasis placed on engaging external partners from industry, government, and other academic institutions in collaborative activities.

Serving as a key pillar of innovation and human capital, Masdar Institute remains fundamental to Masdar's core objectives of developing Abu Dhabi's knowledge economy and finding solutions to humanity's toughest challenges such as climate change.

Masdar Institute integrates theory and practice to incubate a culture of innovation and entrepreneurship, working to develop the critical thinkers and leaders of tomorrow. With its world-class faculty and top-tier students, the Institute is committed to finding solutions to the challenges of clean energy and climate change through education and research.

Masdar Institute offers degrees in:

- MSc Engineering Systems and Management
- MSc Computing and Information Science
- MSc Materials Science and Engineering
- MSc Mechanical Engineering
- MSc Water and Environmental Engineering
- MSc Microsystems Engineering

- MSc Electrical Power Engineering
- MSc Chemical Engineering
- MSc Sustainable Critical Infrastructure
- PhD in Interdisciplinary Engineering

Please visit our website <http://www.masdar.ac.ae/>

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