

Research Institute of Sciences and Engineering

Office of the Vice Chancellor for Research & Graduate Studies
University of Sharjah



The purpose of this circular is to provide information on the current research chair positions and a selection of collaborative agreements and joint projects that involve the Research Institute of Sciences & Engineering (RISE):

- **Research Chair Positions**
 - Sharjah Water and Electricity Authority Chair in Energy and Water
 - Abdullah Shakra Chair in Sustainable Infrastructure
- **Collaborative Agreements/MoUs**
 - Incorporated Research Institutions for Seismology, USA and University of California at San Diego, USA
 - Sharjah Research Academy, Sharjah, UAE
 - Mohammed Bin Rashid Space Center, Dubai, UAE
 - Vlaamse Instelling Voor Technologisch Onderzoek (VITO), Belgium
 - National Center of Meteorology & Seismology, UAE
 - Desert Research Institute, USA
 - University of California at San Diego, USA
 - Renewable Energy Research Center, Algeria
 - Oulu University of Applied Sciences, Finland
 - Lulea University of Technology, Sweden
 - Arizona State University (ASU), USA



Research Chair Positions

Sharjah Electricity and Water Authority (SEWA) Chair in Energy and Water

A research chair position in the name of Sharjah Electricity and Water Authority was established at the University of Sharjah to support research and educational activities related to energy, water and environmental protection. As an addendum to the agreement and following discussions, a number of projects were agreed between the two parties in the areas of: water supply, recycling and reuse; water conservation; water quality; generation of water from air; safe yield of ground water fields; solar air conditioning; hybrid PV-thermal collectors; demand side management using stand-alone hybrid power systems; and sustainability of UoS campuses.



Abdullah Al Shakra Chair in Sustainable Infrastructure

A professorship chair position was established in the name of Abdullah Al Shakra, Chairman of Al Hanoo Holding, at the University of Sharjah in the area of sustainable infrastructure. The position represents a significant contribution to enrichment of research and education in sustainable development. The main areas covered under the chair position include sustainable roads, water and environment infrastructure; energy sustainability and efficiency in buildings; and low-income housing.



Collaborative Agreements & Joint Projects

Incorporated Research Institutions for Seismology, USA and University of California at San Diego, USA

An agreement to establish a Global Seismographic Network Station in Sharjah was concluded between the University of Sharjah, the University of California San Diego, USA and the Incorporated Research Institutions for Seismology, USA. The UOS currently provides continuous geophysical scientific observations to the international scientific community and provides live monitoring data to the National Center of Meteorology in the UAE.



Sharjah Research Academy (SRA), Sharjah, UAE

In addition to funding the research projects of a number of RISE researchers, the University of Sharjah signed collaboration agreements with Sharjah Research Academy (SRA) to conduct a number of joint research projects. Some of these agreements involved other parties, including Sharjah Municipality, Desert Research Institute, Nevada, USA, Arizona State University, USA and Qatra Company in Sharjah. These agreements cover a number of topics, including wastewater treatment and reuse, protection of human health and the environment, advanced materials, renewable energy, biotechnology, transportation, geotechnical research and other topics.



Mohammed Bin Rashid Space Centre, Dubai, UAE

A memorandum of understanding (MoU) was signed between the University of Sharjah and Mohammed Bin Rashid Space Centre (MBRSC) focused on setting a framework for cooperation between the two organizations. The main aim of the MoU is to advance space sciences and technology, prepare a generation of leaders and innovators in the field, enhance collaboration between the two organizations, contribute to the development of the UAE space program, and serve the development needs of the UAE community.



Vlaamse Instelling Voor Technologisch Onderzoek (VITO), Belgium

VITO is a Flemish research organization that is focused on research and development in the areas of clean technology and sustainable development. The University of Sharjah and VITO signed an MoU for the purpose of exploring collaborative opportunities in research, faculty and student exchange and training, and academic programs support.



National Center of Meteorology, UAE

A memorandum of understanding (MoU) was concluded between the National Center of Meteorology and the University of Sharjah to enhance scientific and applied research cooperation in the fields of meteorology and seismology. The agreement facilitates access to results of research and studies, exchange of data, delivery of training and educational programs, and joint organization of professional events.



Desert Research Institute, USA

A research collaboration and joint funding agreement was concluded between the University of Sharjah, Desert Research Institute, USA and Sharjah Research Academy (SRA). The agreement was concerned with research in the areas of protection of human health and environmental through detecting, identifying and quantifying contaminants of emerging concern (CECs), such as pharmaceuticals and personal care products, hormones and other contaminants, in recycled water that may be used for beneficial purposes, including irrigation.



University of California at San Diego, USA

Based on mutual interest in cooperative activities involving ocean and earth science research and development, the University of California at San Diego (UCSD), and the University of Sharjah signed an MoU to enhance collaboration between the two organizations. The two parties agreed to facilitate exchange of researchers, faculty members, and graduate students.



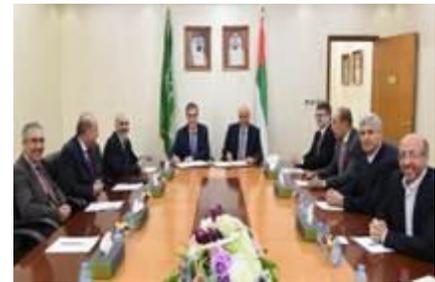
Renewable Energy Research Center, Algeria

A memorandum of understanding (MoU) was signed between the Renewable Energy Research Center of Algeria and the University of Sharjah to enhance research collaboration in the areas of renewable energy, sustainable water cycle and environmental protection. The agreement calls for exchange of researchers and scientific knowledge and conduct of jointly funded research projects focused on basic and applied research with direct benefits and applicability in both Algeria and the UAE.



Oulu University of Applied Sciences, Finland

A Memorandum of Understanding (MoU) was signed between the University of Sharjah and Oulu University of Applied Sciences to enhance international cooperation and communication between the two universities. The agreement encourages exchange of students, exchange of academic staff members, development of collaborative educational programs and development of collaborative research.



Lulea University of Technology, Sweden

A letter of Intent (LoI) was signed between the University of Sharjah and Lulea University of Technology in order to promote academic cooperation, mutual understanding and friendly relations. The signing of the agreement was facilitated by the Sustainable Engineering Asset Management Research Group of RISE. This agreement is concerned with mutual activities through joint faculty development programs, development of joint programs, joint research projects, joint supervision of PhD and MSc students, joint research publications, joint professional events and exchange of faculty members and students.



Arizona State University, USA

A joint project agreement was concluded between the University of Sharjah (UoS), Sharjah Research Academy (SRA) and the Center for Bio-mediated & Bio-Inspired Geotechnics (CBBG) at Arizona State University, USA. The aim of the agreement is to explore possibilities for controlling dust emissions under local conditions using an innovative process, which involves enzyme induced calcite precipitation. The process combines scientific knowledge from different disciplines, including chemistry, biotechnology and environment to provide a practical solution to a common problem.



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