



SDG 6.5.3

Off-campus water conservation support

The University of Sharjah supports off-campus water conservation through the work of its Desalination Water Treatment (DWT) Research Group under the Research Institute of Science and Engineering. The Group's activities directly address national water resource challenges in the United Arab Emirates. As stated in its objectives, the Group is responsible for the characterization and assessment of water resources in the UAE, mainly groundwater and seawater. This work involves collecting seawater samples from different coastal locations and analyzing them to determine the level of dissolved and undissolved materials, which assists in identifying pollutants and understanding water quality conditions across the region.

The Group's mission further states that it aims to develop water technologies and materials that have positive environmental and economic impacts on the UAE in particular and worldwide in general. To achieve this mission, the Group is developing research infrastructure to conduct basic, applied, and advanced research in the field of water desalination. Its work includes the development of membranes, adsorbents, and coatings, as well as process optimization for thermal and reverse osmosis desalination systems and the exploration of hybrid desalination approaches using solar or nuclear thermal energy. Through these research activities, the University of Sharjah provides scientific and technological contributions that support water conservation efforts beyond the campus and respond to national needs in sustainable water resource management.

Desalination Research Group (DRG) provide the following services:

1. Consultancy for the governmental and private water sectors
2. Service center for desalination water quality
3. Organization of local and international workshops, seminars and conferences
4. Public awareness about the water scarcity in UAE and globally
5. Offering tailored professional training courses designed to support practicing engineers and professionals
6. Offering short courses on water and energy
7. Participating actively in professional societies
8. Producing design guidelines, manuals, and other support material related to UAE
9. Transferring technological information to the scientific and engineering communities.
10. Publishing a periodical summarizing news development and technologies