

## EDUCATION



Cutting-edge teaching and learning facilities.

# Preparing industry-ready graduates

► UniKL water-management graduates in demand due to climate change

**KUALA LUMPUR:** With the dawn of the Fourth Industrial Revolution (IR 4.0), from ride-sharing applications to online flight booking and e-commerce platforms, and self-driving cars and drones, our lives are affected by the new era of technological advancement.

As IR 4.0 gathers pace, technology is becoming increasingly connected, and there appears to be a convergence of the digital, physical, and biological realms.

Thus, an opportunity exists for the water sector, as IR 4.0 technology transforms the face of water and wastewater systems. Over the course of digitisation, procedures, tools and other resources are increasingly becoming available, ushering in a new era for water management.

Through the increased integration of IT, sensors, and model applications, opportunities can be created to better understand water management systems in terms of their complexity and degree of networking and to illustrate them in production, early warning and decision-making processes.

The growing demand for water for energy, combined with increased resource scarcity, underlines the need for integrated solutions. One of the biggest barriers to innovation in the water and energy sectors is the lack of personnel who truly understand the implications of the technology.

Thus, Universiti Kuala Lumpur (UniKL) has mobilised its efforts for better water management by establishing the Centre for Water Engineering Technology (UniKL CWET). The IR 4.0 environment demands an innovative workforce, and UniKL CWET can produce graduates who can manage, operate, and innovate in the new innovation-led water and energy sectors by carefully designing new programmes focused on digitalisation and developing fresh new skills and knowledge that can be transferred to the workforce of the future.

In collaboration with the Malaysia France Institute (UniKL MFI), UniKL CWET currently offers the Bachelor of Water Resources Engineering Technology with Honours (BET WRE) with Honours and the Bachelor of Engineering Technology in Water Engineering and Energy (BET WEEe) with Honours.

These four-year engineering technology programmes emphasise a comprehensive understanding of general water engineering

principles along with deep digital, complex problem-solving, collaboration, communication, interpersonal, and leadership skills at their core.

The curriculum modules have been developed to engage students in applying technology concepts to real-world water and wastewater sector problems. This would help stimulate creativity in technology solutions for the water sector while inspiring and building a pipeline for the next generation of water leaders in government, industry and research institutions.

The new 35,000 sq ft UniKL-CWET building is equipped with virtual, decentralised, real-time, and immersive laboratories that aim to nurture creativity and innovation. The Water Resources Management Laboratory housed within the UniKL-CWET building is equipped with a state-of-the-art IoT-based real-time water quality monitoring system developed in partnership with the French-based Veolia Group.

Apart from the cutting-edge teaching and learning facilities, the iconic UniKL CWET building is also equipped with modern digital teaching technology, including state-of-the-art SCADA-Net and Cloud Learning Systems, featuring remote access to SCADA-enabled teaching units in a simple and easy way.

The programmes offered by UniKL CWET are recognised through accreditation by the Chartered Institution of Water and Environmental Management (CIWEM).

The water sector job market is shifting to higher educational requirements. Nearly 75% of new job openings in the water sector require a bachelor's degree. However, only 25% of the existing labour force has one.

The new undergraduate degrees offered by the UniKL CWET are one of the most innovative, interdisciplinary offerings in the country and will position graduates for a wide spectrum of careers in private industry and federal and state agencies.

UniKL's Bachelor of Electromechanical Engineering Technology with Honours offers a comprehensive blend of electrical, mechanical and automation expertise.

**For admission and details information, check out UniKL's website at [unikl.edu.my](http://unikl.edu.my), contact its admissions department at 03-89132818, or send an email to [admission.mfi@unikl.edu.my](mailto:admission.mfi@unikl.edu.my).**