

FACULTY OF CIVIL ENGINEERING

RIVER RANGER INDEX (RRI): A MODEL FOR SURFACE WATER MONITORING



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SHAH ALAM, 9 May 2026

The Faculty of Civil Engineering, Universiti Teknologi MARA (UiTM) Shah Alam organised the "River Ranger Index (RRI): A Model for Surface Water Monitoring" programme at the Sungai Kayu Ara catchment area, Damansara, Kuala Lumpur. Led by Ts. Dr. Azianabiha A. Halip, the programme involved 15 Master of Environmental Engineering students enrolled in the ECW746 Environmental Monitoring course.

The programme adopted the River Ranger methodology developed by the Global Environment Centre (GEC), providing students with hands-on experience in river mapping, habitat observation, physical river assessment, and basic water quality monitoring. Invited facilitators from UiTM and Universiti Tunku Abdul Rahman (UTAR) guided the field activities and shared their expertise in river quality assessment.

Through fieldwork, group discussions, and presentations, students strengthened their technical, analytical, and problem-solving skills while gaining a deeper understanding of sustainable river management and community-based environmental monitoring.

The programme also supported the United Nations Sustainable Development Goals (SDGs), particularly SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, and SDG 15: Life on Land, reflecting UiTM's commitment to producing environmentally responsible graduates equipped with practical skills in sustainable water resource management.

Academic Visit to Putrajaya Dam and Wetlands



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12 June 2026

The Concrete Society Malaysia (CSM) Student Chapter, Faculty of Civil Engineering, Universiti Teknologi MARA (UiTM) Shah Alam, organised an academic visit to Putrajaya Dam and Putrajaya Wetlands, involving 83 students and three accompanying lecturers. Conducted in collaboration with Perbadanan Putrajaya (PPj), the programme aimed to expose students to real-world applications of civil engineering in water resource management, dam engineering, and constructed wetland systems. Participants attended technical briefings by PPj officers and explored the dam's flood control system, hydraulic structures, geotechnical safety monitoring, and the role of Putrajaya Wetlands in naturally improving water quality before it flows into Putrajaya Lake. The visit provided valuable insights into sustainable water management and green infrastructure.

The programme strengthened students' understanding of dam engineering, hydraulic systems, and environmental sustainability while enhancing their communication, teamwork, and critical thinking skills through experiential learning. The academic visit also supported the United Nations Sustainable Development Goals (SDGs), particularly SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 9: Industry, Innovation and Infrastructure, and SDG 11: Sustainable Cities and Communities, reflecting UiTM's commitment to producing industry-ready graduates with practical knowledge and sustainable engineering perspectives.

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