

COMPANY NEWSLETTER

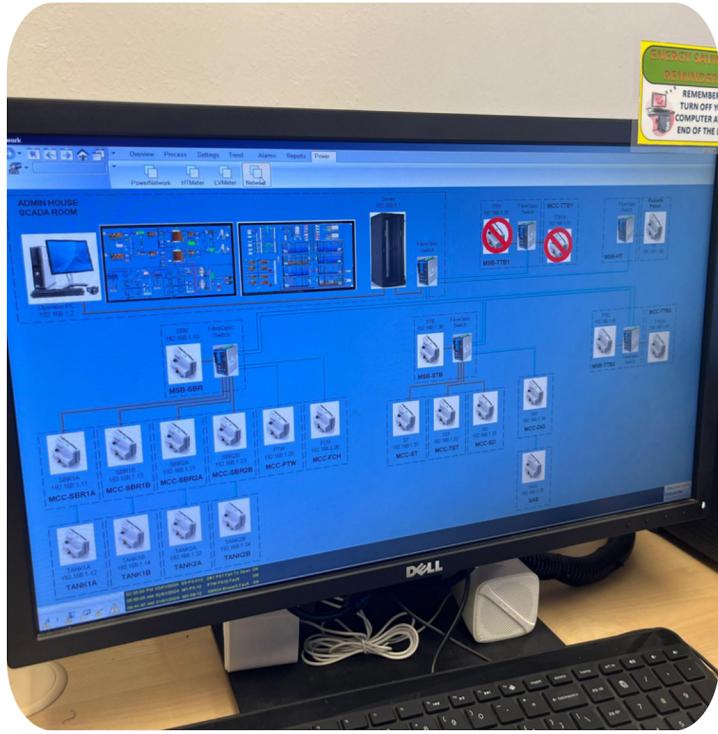
SUMMARY OF THE VISIT

On January 3, 2024, UTMKL students in the SECP1513 course visited one of Indah Water's research centers at Titiwangsa Lake. The visit included an informative session about Indah Water, its role in Malaysia's sewerage system, and a closer look at untreated and treated sewage samples. The students then toured essential facilities, such as septic tanks and related software and hardware systems, receiving explanations from staff members. The visit ended with a group photo to commemorate the experience..



ISSUES : SEWAGE

Wastewater from homes goes into individual septic tanks. Indah Water company empties each tank every two years to clean it. This prevents diseases like Hepatitis B and Cholera, keeps the environment clean, and produces useful products like bioeffluent, biosolids, and biogas.



TECHNOLOGIES : SCADA SYSTEM

SCADA stands for Supervisory Control and Data Acquisition. It is a system utilized to control, monitor, and analyze septic tanks and associated equipment during the treatment process. The system is supported by extensive hardware situated in a warehouse near the control room. It efficiently manages and stores vast amounts of data, providing detailed insights into every aspect of the treatment process.

THE PROCESS

1. INSPECTION:

- Wastewater is inspected, and normal color (grey) is a sign of regular conditions.

2. AERATION:

- Wastewater moves to the second tank, where bacteria break down organic waste through aeration.

3. SEDIMENTATION:

- Wastewater proceeds to the third tank, allowing small solids, sludge, and sand to settle. This process takes a day, and periodic removal of these materials occurs.

4. DISINFECTION:

- Further removal of biodegradable organic matter and suspended solids takes place. Disinfectant is applied as a final step.

5. DISCHARGE:

- Treated wastewater is discharged based on its quality, determined by the standard Biochemical Oxygen Demand (BOD).



TECHNOLOGY USED



IMHOFF TANKS

- Simple method for sewage treatment, removing scum without special equipment.
- Involves reversing sludge flow and easy desludging.

OXIDATION PONDS

- Treats sewage for high-quality effluent using natural processes like aeration.

MECHANICAL SEWAGE TREATMENT PLANT

- Advanced facility for sewage treatment, efficiently removing sludge, scum, and grease..

SCADA SYSTEM

- Built to control and supervise the whole sewage plant, ensuring smooth operation.



REPORTING:

The visit was informative because it taught us many things relating to the sewerage system.

RELATING:

Before the visit, I believed toilet sewage went directly into the ocean. However, after the visit, I now have a complete understanding of the water treatment process.

REFLECTION

RESPONDING:

The visit was enlightening as it provided valuable information about the sewage system, enhancing our understanding of the subject.

REASONING:

Wastewater must be treated to prevent the spread of numerous diseases and protect the health of the community.

RECONSTRUCTING:

The sewerage system, often overlooked, is a crucial aspect in every country. Through the collective efforts of many, we can uphold and enhance our sewerage system, ensuring cleanliness in our daily lives.