hkpc Academy 生產力學院

An Introduction to Wastewater Treatment Plant (WWTP) Hydraulics

The design of a wastewater treatment plant (WWTP) involves mainly process design and hydraulic design. To meet more challenging environmental requirements, especially those due to Climate Change, WWPT designers are adopting new treatment processes with more stringent hydraulic requirements. Designers of WWTPs are faced with the need to design treatment processes which must meet some general or special hydraulic requirements. The knowledge gaps relevant to hydraulics for WWTP design should be bridged.

Programme code	10011443-1
Date and time	27 August 2021 9:30 - 17:30
Venue	Classroom 122, 1/F, HKPC Building, 78 Tat Chee Avenue, Kowloon Tong
Medium	Cantonese with English terminology
Course fee	HK$2,200
Remarks	Participants who have fulfilled 100% attendance will be awarded a certificate of attendance issued by the Hong Kong Productivity Council

Course Description

This course brings together information on commonly used hydraulic elements and specific applications to wastewater treatment plants. The development of hydraulic profiles through the entire treatment process with examples for wastewater treatment will be also introduced. The course will be taught by Ir Prof. CHAN Pak-Keung, who will help civil and environmental professionals to bridge their knowledge gaps.

WHO SHOULD ATTEND?

This course is targeted at civil and environmental engineering professionals, responsible for project management, planning, investigation, design, construction, operation and management of wastewater infrastructure. It is also relevant to hydraulic researchers engaged in optimizing wastewater treatment plant design and operation.

Supporting Organisations

CIWEM Chartered Institution of Water and Environmental Management Hong Kong Branch

HKIE THE HONG KONG INSTITUTION OF ENGINEERS 香港工程師學會 Environmental Division 環境分部

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Course Outline

Lecture 1 - Overview
- ✓ Development of Wastewater Engineering
- ✓ Water Pollution Control
- ✓ Nexus between management of wastewater, water supply and stormwater
- ✓ Evolving Wastewater Treatment Technologies

Lecture 2 - Planning Issues
- ✓ Flows and Loads, Effluent Standards
- ✓ Unit processes and Flow Charts
- ✓ Plant Siting and Layout
- ✓ Head Requirements, Flow Splitting Problem and Hydraulic Profile

Lecture 3 - Harbour Area Treatment Scheme
- ✓ Project Management Aspects
- ✓ Hydraulic Aspects

Lecture 4 - Climate Change and Wastewater Treatment
- ✓ Background of Climate Change
- ✓ Greenhouse Gas Emissions from Wastewater Management
- ✓ Climate Change Mitigation
- ✓ Climate Change Adaptation

TRAINER

Ir Prof. CHAN Pak-Keung taught a 2-day CPD course "Sanitary Sewers: Principles and Applications" for HKPC in July 2019. A new course of "An Introduction to Wastewater Treatment Plant (WWTP) Hydraulics" will be conducted by Ir Prof. CHAN this year to bridge the knowledge gaps for civil and environmental engineering professionals with knowledge in hydraulic design.

Ir Prof. CHAN has over thirty years' experience in Civil and Environmental Engineering. He had spent sixteen years working as a Chief Engineer / Assistant Director in Drainage Services Department (DSD) amongst flood management, major wastewater engineering projects, the Research & Development initiatives of DSD as well as operation and maintenance for sewerage & drainage systems. Since 2015, Ir Prof. CHAN has been active in teaching university programmes and CPD courses.

Enrolment method

1. Scan the QR code to complete the enrolment and payment online.

2. Mail the crossed cheque with payee name "Hong Kong Productivity Council" in HK dollar) and the application form should be mailed to Hong Kong Productivity Council, 3/F, HKPC Building, 78 Tat Chee Avenue, Kowloon (ATTN: Ms Hedwig CHEUNG). Please indicate the course name and course code on the envelope.

Enrolment form can also be downloaded from www.hkpcacademy.org

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