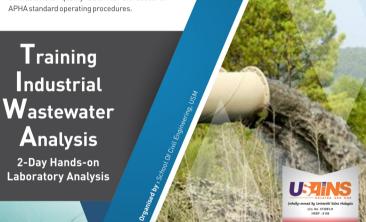
Training on Industrial Wastewater Analysis (TIWA) is a 2-day hands-on wastewater laboratory analysis organised by the School of Civil Engineering, Universiti Sains Malaysia. The program is divided into two segments; (i) THEORETICAL and (ii) HANDS-ON. On the theoretical part, participants will be furnished on the fundamentals including the applied calculations of each wastewater parameter test. Conjointly with DOE, a-1 hour session is briefed on the latest requirement as stipulated under the Environmental Quality (Industrial Effluent) Regulations 2009, EQA 1974. Participants will also gain experience and be guided on the "dos and don'ts" while performing hands-on analysis on wastewater quality tests that are based on



# **TIWA 2017**

HRDF CLAIMABLE

Date: 4<sup>th</sup> and 5<sup>th</sup> April 2017 Venue: School of Civil Engineering, USM Time: 8.30 a.m. to 5.00 p.m.



#### INTRODUCTION

Serious and expensive industrial wastewater problems can result due to a number of reasons: (i) improper design, (ii) poor construction; (iii) mismanagement of running a wwtp i.e. inaccurate pH adjustment, unsuitable coagulant type, over- or under-dosage. miscalculated mixing/settling time and etc. An inefficient wastewater treatment process will significantly affect the environment and could lead to unnecessary losses in revenue to the company.

A good design system is not the sole leverage to solve the problems of this nature. A successful operation and maintenance system is also pertinent in ensuring an effective wastewater treatment plant to comply with the regulatory standards. It is equally important that WWTP employees are qualified and are equipped with the appropriate and up-to-date knowledge related to their job scope.

#### COURSE PROGRAMME

#### DAY 1 8.30 a.m. - 12.30 p.m. [Theoretical and Law]

8.30 a.m. Registration

9.00 a.m. Opening speech by Chairman

9.15 a.m. i. Wastewater Characteristics Study

ii. Fundamentals of Wastewater Analysis & Calculation (pH, DO, BOD, COD)

10.15 a.m. Morning refreshments

10.30 a.m. iii. Fundamentals of Wastewater Analysis & Calculation (TSS, MLSS/MLVSS)

11.30 a.m. iv. Regulation Requirements and Compliance with specifications of Industrial effluent or mixed effluent (by invited DOE Officer)

12.30 p.m. Lunch

Location - Environmental Lab 1 [Room 0.33]

2.00 p.m. i. Chemical Oxygen Demand (COD)

Biochemical Oxygen Demand (BOD)

iii. Turbidity / pH / Color / Conductivity

Tea Break and Session End

#### SECRETARIAT, TIWA'17

School of Civil Engineering, Info Engineering Campus. Universiti Sains Malaysia 14300 Nibong Tebal, Penang, Malaysia

(nsabtu@usm.my)

 Dr. Nuridah Sabtu
Cik Nor Ashikhin Darus +6045995517 +6045996256

Employees who are channelled through the right training, who undergo regular refresher courses and have a sufficient amount of experience will be able to manage the necessary means of managing the operation of the wastewater treatment processes as well as monitoring the wastewater treatment plant performance.

The workshop is designed to serve individuals, or employees who are directly involved in handling or managing WWTP/IETS in industrial plants or conducting research that is related to wastewater treatment processes.

#### OBJECTIVES

- To develop the theoretical fundamentals (and applied . calculations) of each wastewater parameter test
- To demonstrate and train how to conduct wastewater laboratory tests.
- To update on the latest EQA Regulations related to IETS.
  - To identify and troubleshoot general wastewater treatment process problems.

#### 8.30 a.m. - 4.00 p.m. [Hands-On in the Lab]

Location: Environmental Lab 1 [Room 0.33]

8.30 p.m. i. Total Suspended Solids (TSS)

- ii. Mixed Liquor Suspended Solids
- iii. Mixed Liquor Volatile Suspended Solids (MLVSS)
- iv. Sludge Volume Index (SVI)

12.30 p.m. Lunch break

2.00 p.m. I. Ammoniacal-Nitrogen

ii. Heavy metals

4.00 p.m. Tea break and Certificate Award

5.00 p.m. End

Limited

Seats

Available

### **COURSE FEE**

Fee inclusive of GST. GST registration No.: 0012 9141 9648 Fee covers tea breaks and lunches,

course materials and Certificate of Attendance.

RM2,800.00 per participant

Group: RM2,420.00 per group

Please register and make payment before

27th March 2017

Organised by: SCHOOL OF CIVIL ENGINEERING, USM

## **REGISTRATION FORM**

# Training on Industrial Wastewater Analysis (TIWA'17) - 4th & 5th April 2017

Kindly send your registration (original / photocopied) form to:

# TIWA'17 Secretariat (Attn. Dr. Nuridah Sabtu),

School of Civil Engineering, Engineering Campus, Universiti Sains Malaysia, 14300 Nibong Tebal, Penang, Malaysia.

**Tel:** +604599 5517 **Fax:** +604599 6906 **Email:** nsabtu@usm.my

NO.	PARTICIPANT NAME		POSITION & EMAIL			
1						
2						
3						
4						
5						
Organisation:						
Address:						
Company Registration No:			Postcode:			
Contact Person:		Tel:	Fax:			
Email:			Mobile:			

Please (X) in the appropriate box.

MODE OF PAYMENT			NUMBER	BANK	NO. OF PARTICIPANTS:		RM
		Cheque			Normal		
I enclosed		Bank Draft			Group		
		Money Order					
		L0/P0			TOTAL		
Cheque / Bank Draft / Money Order / LO / PO must be made payable to "USAINS HOLDING SDN. BHD."							

Cheque / Bank Draft / Money Order / LO / PO must be made payable to USAINS HOLDING SDN. BHD."

# 1. Bank Transfer [Please fax your Bank-in Slip (Print your name & details on the slip)].

**PAYEE NAME** : Usains Holding Sdn. Bhd.

**DETAILS** : Training on Industrial Wastewater Analysis – 4th & 5th April 2017.

NAME OF BANK : AmBank (M) Berhad, Level 21, Menara Dion, Jalan Sultan Ismail, 50250 Kuala Lumpur.

**ACCOUNT NUMBER**: 888 - 100 - 985 - 0380

**SWIFT CODE** : ARBKMYKL

# 2. A Local Order (LO) or Purchase Order (PO) must be presented before the event.

The Organizer reserves the right to refrain a registered participant from taking part in the event if no proof of payment can be presented. This only applies to registered participants who have NOT paid the registration fee PRIOR to the event date.

#### 3. Cancellation / Substitution

A full refund less administration cost of 15% from paid fee will be given for cancellation received not later than **10 working days** before the event. No refund will be made after this period. However, substitute participants are welcomed at no extra charge provided written notice of at least **5 working days** before the event is given to the Organizer.

<sup>&</sup>quot;I hereby agree that the personal data that I have provided to USAINS, whether now or in future, may be used, recorded, stored, disclosed, or otherwise processed by or on behalf of USAINS in accordance with the Personal Data Protection Act 2010 and USAINS' data protection policy (available at USAINS' website – www.usainsgroup.com), for the purpose of facilitation and organisation of this event, research and audit, and maintenance of a participant database for the promotion of this event, and such ancillary services as may be relevant."