



HALF-DAY WORKSHOP ON TUNGSTEN INERT GAS (TIG) WELDING

Organized by
 Hong Kong Institute of Steel Construction
 Department of Civil and Structural Engineering, The Hong Kong Polytechnic University

Supported by
 Joint Structural Division, The Hong Kong Institution of Engineers

Date:	28 April 2017 (Friday afternoon)
Venue:	Room Y302, The Hong Kong Polytechnic University, Hungghom, Kowloon
Time:	1:45 pm (registration) for 2:15 pm to 5:45 pm

Scope and Objectives

At present, welding is widely used in construction industry of Hong Kong and worldwide. The Code of Practice for The Structural Use of Steel 2011 specifies the requirements of welding in terms of Welding Procedure Specification, welders' certificates and the acceptance of workmanship.

Tungsten inert gas (TIG) welding, also known as Gas tungsten arc welding (GTAW), is an arc welding process that uses a non-consumable tungsten electrode to produce the weld. The weld area is protected from atmospheric contamination by an inert shielding gas (argon or helium), and a filler metal is normally used. A constant-current welding power supply produces electrical energy, which is conducted across the arc through a column of highly ionized gas and metal vapors known as a plasma.

TIG is most commonly used to weld high quality root welds for carbon and alloy steel pipings. The process grants the operator greater control over the weld than competing processes such as shielded metal arc welding and gas metal arc welding, allowing for stronger, higher quality welds. However, TIG is comparatively more complex and difficult to master, and furthermore, it is significantly slower than most other welding techniques. A related process, plasma arc welding, uses a slightly different welding torch to create a more focused welding arc and as a result is often automated.

This workshop aims to give an overview of TIG welding process and covers its welding procedure specifications, welder qualification tests and common associated defects for professional engineers, particularly Technically Competent Person (TCP) of the Supervision Plan System under the Buildings Ordinance.

The speaker of the workshop is Mr. Vinodh Kumar, who is the Manager (NDT & Welding) of Fugro Technical Services Ltd., Hong Kong. Mr. Vinodh acquired his B.Eng (Hons) from Australia and has gained many international Certifications in NDT, Welding, Painting, Coating, Asset Integrity and QHSE Management Systems.

Official Language

English will be the official language medium of the workshop.



Fees & Registration

Registration rates are devised, please make your reservation now.

Registration	HKISC member	HKIE member or Group of 5 +	Non-member
	HK\$ 600	HK\$ 700	HK\$ 800

The registration includes a copy of the lecture notes, a copy of half-day CPD certificate, tea refreshments.

Should you have further query, please do not hesitate to contact Mr. Sam CHAN at samchan@hkisc.org.

Programme

Time	Programme
1:45 pm	Registration
2:15 pm – 3:45 pm	Basics of TIG welding
3:45 pm – 4:15 pm	Break
4:15 pm	Welding Procedure Specification
4:45 pm	Welder Qualification Test
5:15 am	Common welding defects arising from TIG welding
5:35 pm	Q & A
5:45 pm	Collect CPD Certificate



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REGISTRATION FORM
(To be replied on or before 25 Apr 2017)

Please follow the 2-step registration procedure:

1. Fax the completed registration form to *Mr Sam CHAN* (Fax: 852-2334 6389) for preliminary registration.
2. Post the completed registration form within 7 days together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to *Mr Sam CHAN*, at:

Room ZS 972, Department of Civil and Environmental Engineering,
The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong, China.

on or before the deadline.

To: Mr Sam CHAN

Fax: 852- 2334 6389

Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel.	E-mail address	Institution/ Membership No.
1.					
2.					
3.					
4.					
5.					

Item	Total no. of registration	Sub-total
1. Regular registration (Member*price)	_____ person(s)	= HK\$ _____
2. Regular registration (Non-member price)	_____ person(s)	= HK\$ _____

Postal Address
(for official receipt):

I enclose a crossed cheque (no. _____) with a sum of HK\$ _____ for the registration fee of the captioned Workshop.

Signature: _____ Date: _____

CPD Certificate of Attendance Please tick the appropriate box to indicate your choice:

Yes, I/ we would like to have CPD certificate(s). Not request for certificate(s).