

# Digital Construction Part I (IDD Concept and Digital Tools)

1<sup>st</sup> Run (Virtual Classroom)

**No Funding**

## Introduction

As the construction industry moves into Industry 4.0 we are increasingly exposed to digital tools and related concepts to improve our construction productivity and work efficiency. New approaches to work like Integrated Digital Delivery, Virtual Design & Construction, Design for Manufacturing & Assembly etc are used for major projects and it is a matter of time when all projects adopt such approaches. Technology has advanced to allow us to use tools which we do not have access to in the past like Drones, Wearable Technologies, Internet of Things, Additives Manufacturing etc on site to enhance our productivity and efficiency. We will only be able to harness the advantages of these approaches and technologies if we understand what they are all about and how to use them.

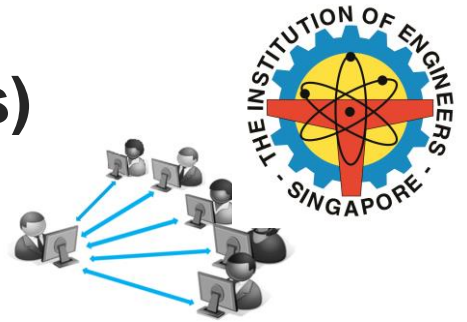
## Objectives

The objective of this program is to explain the concepts of Integrated Digital Delivery in construction. Participants will also learn about the characteristics of drones, wearable technologies, Internet of Technology and 3D printing. The advantages and limitations of these technologies will be shared with participants to allow them to work with these technologies if and when they are used for their projects.

## Pre-requisites

Prior to attending this course, you should:

- Have a PC / laptop / tablet / smart phone with built-in or external webcam.
- Installed the Zoom client.
- Have Wi-Fi / high speed internet connection available.
- Receive an email with a link for you to submit a registration for webinar 1 week prior to the commencement.
- Receive an email with a link and password for you to join the webinar session after your registration is successful.



IES Academy Virtual

### Details

**Date** : 14<sup>th</sup> Sept 2023, (Thursday)

**Time** : 12.30pm – 7.00pm

**Duration**: 6 hours

**Delivery Mode**: Zoom Webinar

**CPD** : 6 STU (Structural)  
**Confirmed**  
6 PDU (PEB) (CEng) –  
**Confirmed**

**Course Fee (Include GST):**  
**IES Member: \$223.57**  
**Non-member: \$262.43**

E-certificate of Attendance will be awarded to **Paid** participants who have completed course survey with **100% Attendance**.

### Target Audience

Resident Engineers (RE)  
Resident Technical Officers (RTO)

### **IES Academy@Jurong East**

80 Jurong East Street 21, #04-10  
Devan Nair Institute for Employment  
and Employability  
Singapore 609607

Contact Person: Jerine Peh (Ms)  
DID: 6460 4237 | Main Line: 6463 9211  
E-mail: [jerine.peh@iesnet.org.sg](mailto:jerine.peh@iesnet.org.sg)

## **Speaker Profile**

Er. Teo Ee Huat is currently teaching subjects related to Civil and Environmental Engineering in Ngee Ann Polytechnic as a Senior Lecturer. Prior to joining the Polytechnic 8 years ago, he has spent 7 years working in the construction industry involving design and supervision of wastewater/water treatment plant related projects, as well as hospitality, commercial and transportation projects in Singapore. He also worked on wastewater/water treatment development projects in Malaysia, Brunei, Bintan island and the neighboring islands.

Er. Teo Ee Huat graduated from Nanyang Technological University with a B.ENG (Civil) degree in 1996 and has since completed a MSc in Civil Engineering (NUS) and MSc in International Construction Management (NTU). He is actively involved in education and has completed a M.Ed with University of Western Australia in 2010. He is a Singapore registered Professional Engineer and Qualified Erosion Control Professional. He is currently serving as the Co-Chairman of Qualified Erosion Control Professional Panel, IES and has trained Professional Engineers as Qualified Erosion Control Professionals and also trained construction site supervisors in implementation, inspection and maintenance of Earth Control Measures. He has written papers in International journals on issues related to Construction Management and other issues.

## **COURSE SCHEDULE & OUTLINE**

1. Introduction
2. Industry 4.0 and Digital trends in the BE Sector
3. Integrated Digital Delivery (IDD)
4. Introduction to IDD tools
5. Drone use in BE Sector
6. Wearable Technologies
7. Internet of Things
8. Additive Manufacturing (3D Printing)

Time	Description
12.30pm	Introduction
1.00pm	Industry 4.0 and Digital trends in the BE Sector
1.30pm	Integrated Digital Delivery and IDD tools
2.00pm	Afternoon Break I
2.15pm	Drone use in BE Sector
3.30pm	Wearable Technologies
4.15pm	Afternoon Break II
4.30pm	Internet of Things
5.45pm	Additive Manufacturing (3D Printing)
7.00pm	End

## REGISTRATION FORM

### Digital Construction Part I (IDD Concept and Digital Tools) – 1<sup>st</sup> Run - **No Funding**

Date: 14<sup>th</sup> Sept 2023, (Thursday)

Time: 12.30pm to 7.00pm (6 hours)

Venue: Zoom Webinar

CPD Programme: 6 STU (Structural) – Confirmed / 6 PDU (PEB) (CEng) – Confirmed

Fees (inclusive of GST): **IES Member Rate - \$223.57**

**Non-Member Rate - \$262.43**

Registration Closing Date: 6<sup>th</sup> Sept 2023 (Wednesday) / Till Class is full (Whichever comes first)

Course Coordinator: (Ms) Jerine Peh | Direct: 6460 4247 | jerine.peh@iesnet.org.sg

Participant's Details				
Name (as per NRIC in BLOCK Letters):		NRIC / FIN:		Gender: M / F
Address (For Invoice):				
	Postal:		Date of Birth:	
Mobile:		Contact:		Fax:
Email (To Send Confirmation Email):				
Company Name:		UEN No:		Designation:
Please indicate:	<input type="checkbox"/> IES Member Membership No:	<input type="checkbox"/> Non-Member	<input type="checkbox"/> PE/RE/RTO/Safety Officer No:	
	<input type="checkbox"/> Tick here if sponsored by company		<input type="checkbox"/> Tick here if Self-Sponsor	
Contact Person (For Company Sponsor Only)				
Name:		Designation:		
Mailing Address (For invoice):		Tel:	Fax:	
Email:				
Payment:	Bank / Cheque No:	Amount: \$		
<ul style="list-style-type: none"><li>Cheques should be crossed 'A/C payee only' and made payable to '<b>IES Academy Pte Ltd</b>', with the <b>Title of The Event indicated clearly written on the back of the cheques</b>, and submitted with the duly completed registration forms to Attn: Jerine Peh (Ms) <b>IES Academy@Jurong East</b> Devan Nair Institute for Employment and Employability, 80 Jurong East Street 21, #04-10 Singapore 609607</li><li>E-Certificate of Attendance will be issued to participant with 100% attendance with Full payment made.</li></ul>				
<b>Acceptance of Terms &amp; Conditions for Registration of IES Academy Courses / Events</b> I have read, deemed understood and accept the Terms & Conditions of IES Academy courses and events.				
Name:				
Signature:				Date:

## TERMS & CONDITIONS COURSE REGISTRATION

### Registration

Any registration, whether on-line or fax will be on a ***first-come-first-served basis*** and will only be confirmed upon receipt of full payment by IES Academy Pte Ltd unless otherwise invoice to company.

All registrations must be submitted with duly completed registration form.

### Closing Date & Payment

The closing date of the event will be 1 week prior to event commencement date or earlier.

### Confirmation of Registration

Confirmation of registration will be given at least 1 week before the commencement date via email. ***If you do not receive the said confirmation email, you are required to contact IESA at 6463 9211 during office hours.***

IESA reserves the right to allow only confirmed registrants to attend the Event.

### Withdrawals/Refunds of Fees

Written notice ***at least 1 week in advance*** before the commencement of the event

Full course fee shall be refunded subjected to **4.5% transaction charge**.

➤ **NO** refund otherwise.

No show of participant would not be accepted as a valid reason for withdrawal/refund.

One time replacement is allowed only if written notice is received by us at least 1 week before the commencement of the event. However, when an IES member is replaced by a non-member, the participant has to pay the difference in the relevant fees.

### Cancellation/Postponement

Changes in Venue, Dates, Time and Speakers for the Events can occur due to unforeseen circumstances. IES reserves the full rights to cancel or postpone the Event under such circumstances without prior reasons. Every effort, however, will be made to inform the participants or contact person of any cancellation or postponement.

Fees will be refunded in FULL if any Event is cancelled by IESA.

**UTAP (Union Training Assistance Programme)** is an individual skills upgrading account especially for NTUC members. As a member, you enjoy UTAP funding at 50% of the unfunded course fee capped at \$250 every year.

Please visit [here](#) for more information on UTAP claim.

**SkillsFuture Credit (SFC)** "All Singaporeans aged 25 and above can use their \$500 SkillsFuture Credit from the government to pay for a wide range of approved skills-related courses. Visit the SkillsFuture Credit website ([www.skillsfuture.sg/credit](http://www.skillsfuture.sg/credit)) to choose from the courses available on the SkillsFuture Credit course directory."

Please click [here](#) for more information on SFC & UTAP claim.

### PERSONAL DATA PROTECTION ACT

I consent to the processing by Institution of Engineers, Singapore of personal data, including sensitive personal data as defined in the Data Protection Act 2014, about me for the proper purposes of Institution of Engineers, Singapore (IES). I undertake to observe the provisions of the Data Protection Act 2014 in relation to any personal data I may myself hold and process as a Members of Institution of Engineers, Singapore, and I agree to indemnify Institution of Engineers, Singapore from liability for any claims or damages that may arise from the processing of this data. For more information kindly refer to: [www.ies.org.sg/PDPA](http://www.ies.org.sg/PDPA).

### Enquiries

For further enquiries, please contact IESA general office at Tel: 6463 9211.