



2 CPD hours

CPD Seminar

Using Big Data and AI to Improve Construction Health and Safety

- Date : 28th Aug 2020 (Friday)
- Time : 17:00-19:00
- Venue : **Online Seminar** (Detailed information will be sent to applicants; participants will only need a device which can get access to the internet and have AV system.)
- Seminar Highlights : Section 1 - The journey from digital transformation to data driven decision making
"Big data", "AI" and "Machine learning" have been among the hottest buzz words in the past few years. Many organisations want to join the trend to use big data to gain business advantages. In this section, we will introduce and discuss the concept of data driven decision making, the role and meaning of AI, and the secret recipe to gain competitiveness by using data analytics.
Section 2 – Saving Lives with Statistics: An Introduction of Data Science to Workplace Safety
In this case study we demonstrate the application of data science and predictive analytics to aid the HSE function and prevent accidents. We have analyzed operational and accident data from the past 10 years at a leading oil and gas company to quantify the effectiveness of their safety programs.
We have determined how many accidents each program actually prevents, and is able to prevent in an optimal setting. We have determined the optimal level of engagement for each program, and at what level diminishing returns set in. We have further developed a predictive model to forecast the occurrence of accidents one month ahead of time. In this way the HSE function is able to focus on 15% of locations to control 69% of the accidents. The forecast was also able to predict accidents at locations where one would traditionally not expect accidents to happen, such as locations with low activity.
This talk will show the potential for improvement that is possible with the emerging big data, artificial intelligence and machine learning tools specifically in the field of workplace safety.
- Speakers : Miss Frances Luk
Frances is the Managing Partner of AlphaZetta Nordic & UK and she is also an independent data analytics consultant with 13 years of practical data analytics experience. France has a Bachelor's degree in Information Technology and a Master's degree in Data Science. During her career, Frances has taken positions as a Java Developer with IBM, a Data Analyst/Data Warehouse Solution Architect with Danske Bank, Data Warehouse and Data Analytics Consultant with Teradata, Lead of QVARTZ Analytics, and now she is managing a global data analytics consulting business with AlphaZetta. During her career Frances has opportunities to drive and to apply data analytics across industries and business domain areas of large and small organisations.



She has helped international companies like Maersk, LEGO, Scandinavian Airlines and Novozymes to use data to gain business advantage. Her rich mix of tech & business experience, paired up with passion and curiosity lead to a chemistry which turns data to a powerful tool.

Mr. Marek Danis

Marek is an experienced data scientist and trainer with strong business outcome focus. Previously, Marek worked for more than 10 years for Schlumberger Oilfield Services around the world in several technical, engineering and training positions (including 3 years as a trainer of technical as well as corporate culture related content in Russia and UAE), and later with the Digital Transformation Team. Marek began his Data Analytics education at the Texas A&M University Mays Business School in Houston. Since that time, he has developed a strong acumen for QHSE (Quality, Health, Safety and Environment) related analytics and data science. Marek also runs his own consulting company in Austria, specializing in QHSE analytics and how to decrease risk and increase business outcomes.

- Facilitator : Mr. LO Chi Leung, Tony
Tony works in the field of occupational safety, health, environmental and quality engineering and management nearly 30 years especially in construction, engineering and manufacture industries mainly on Government, Housing, Railway Development, Renewable Energy, Private Development Projects. He is the Fellow member of Hong Kong Institution of Certified Auditors-HKICA, Lead Auditor of ISO 45001, 9001 (under ISO 17024), TUV Qualified ISO 14001 Trainer in Asia Pacific, Fellow member of ISHP-HK, Chartered Member of Chartered Association of Building Engineer, CABE-UK, Chartered Member of Institute of Occupational Safety & Health, IOSH-UK, HK. He is the Accredited Safety Auditor (ASA-OSHC), Registered Safety Auditor, Registered Safety Officer in Hong Kong (Labour Department, HKSAR). He was the Ex-Programme Leader of EOSH and Teaching Fellow in Hong Kong Polytechnic University, Civil and Environmental Engineering Department. He is one of active members in Occupational Safety & Health Association.
- Language medium : Cantonese and English
- Admissions : **Free for participation**
(Cost of electronic CPD certificate:
HK\$100 for ISHP members / members of supporting organizations; and
HK\$200 for non-members)
- Places : 150 (First-come-first-served)
- Enquiry : Please contact Ms. Yu at 91801788.

Supporting organizations:



THE UNIVERSITY OF HONG KONG 香港大學
faculty of architecture 建築學院
Department of Real Estate and Construction 房地產及建設系



香港工程監督學會
The Hong Kong Institute of
— Clerks of Works —



Email : info@ishp.org.hk Homepage : www.ishp.org.hk Tel : 3442 7036



Application Form

CPD Seminar

Using Big Data and AI to Improve Construction Health and Safety

Name : _____

Company/ University/ Institute : _____

Position/ Major & Year (For student only): _____

Address : _____

Tel no. : _____

Email : _____

(Certificate, if needed, will be sent to you via email.)

Please tick the applicable item:

☐

Attending the seminar without CPD certificate.

Please email the application form to ishp-admin@ishp.org.hk (Email subject: CPD-20200828).

☐

Attending the seminar with CPD certificate.

| | | |
|---------------------------------|---------|---|
| ISHP member | HK\$100 | (Membership no.: _____) |
| Supporting organizations member | HK\$100 | (Organization: _____ Membership no.: _____) |
| Non-member | HK\$200 | |

Payment:

Bank transfer

HSBC account number: 078-366358-838; Account name: The Institute of Safety and Health Practitioners Limited
Please email the application form & bank transfer receipt to ishp-admin@ishp.org.hk (Email subject: CPD-20200828).

Application deadline: **25th Aug 2020**

Bank transfer/ Cheque number: _____

Bank name : _____

Payment amount : HK\$ _____

Signature : _____

Date : _____

* While ISHP will not arrange insurance policy for participants, please consider arranging your own insurance policy to cover your own risks



Email : info@ishp.org.hk Homepage : www.ishp.org.hk Tel : 3442 7036