

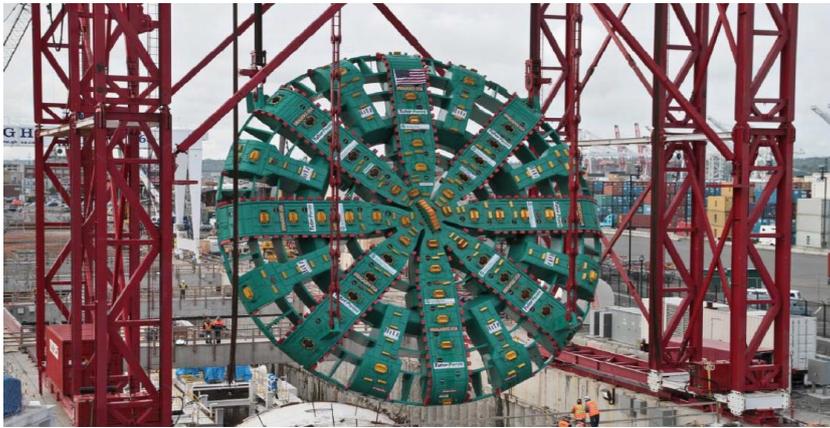


THE HONG KONG  
POLYTECHNIC UNIVERSITY  
香港理工大學



DEPARTMENT OF  
CIVIL AND ENVIRONMENTAL ENGINEERING  
土木及環境工程學系

CEE



## Innovative Solutions to Selected Underground Construction Challenges

**Dr Wolfgang Aldrian**

*Head of Global Technical & Product Management, Underground Construction,  
BASF Schweiz AG, Switzerland*

### ABSTRACT

At **BASF**, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Through science and innovation, we enable our customers in nearly every industry to meet the current and future needs of society. We interact an amazing **8 times per day** with BASF chemistry ranging from waterproof fabrics, and bio-degradable plastics to performance car paint coatings and fuel additives.

With **Master Builders Solutions**, BASF introduces a global brand of advanced chemical solutions for construction. The brand builds on the strengths of many existing BASF brands and products and represents our experience of more than **100 years** in the construction industry.

Dr Aldrian will take us through a journey from mainland Europe to Seattle, stopping off in London and Scandinavia discussing the various technical challenges faced in constructing a variety of underground structures. We will visit a large scale TBM project and delve into the latest in soil conditioning with state-of-the-art foams; descend down shafts where the latest in sprayed concrete liquid accelerators were used for early strength in ground support; explore huge caverns and sealing them against water ingress with PUS injection; rescuing TBMs through foam injection from surface, and how versatile double bonded sprayed waterproof membranes were used on sealing London clay.

**Date:** 16 November 2017 (Thursday)

**Time:** 1:30 p.m. to 2:30 p.m.

**Venue:** Room QR403, 4/F,  
The Hong Kong Polytechnic University,  
Hung Hom, Kowloon,  
Hong Kong

### SPEAKER'S BIOGRAPHY

Dr Wolfgang Aldrian is the Head of Global Technical & Product Management, Underground Construction Chemicals for BASF.

Before joining BASF in 1998, Dr Aldrian gained a Ph.D. from the Mining University of Leoben, Austria. He then plunged into the world of design consultants with GeoConsult, where he worked on numerous prestigious projects, namely: London Heathrow Express Link; Siebertunnel High Speed Railway and SSSP Project Riyadh in Saudi Arabia.

A seasoned tunneling professional with over 30 years within the industry, Dr Aldrian is passionate about sprayed concrete for temporary and final tunnel linings and underground structures.

Recently, he presented at the acclaimed international short course on **'Tunneling Fundamentals, Practice and Innovations'** (18-21 September 2017, Colorado School of Mines, USA).

\*\*\* All Interested Are Welcome \*\*\*

For further information, please contact Dr T.M. Chan at Tel. 2766-6013.

Free Admission. Certificates of attendance will be provided to participants if they attend the whole lecture.