

8ICEG Invited Lecture



Prof. Wang Fuming

The laboratory director of National Engineering Laboratory of Detection and Maintenance Technology of Major Infrastructures

The director of Henan Co-innovation Center of Water and Transportation Infrastructure Security

Invited Lecture Title

The Development of Impermeable Technology in Underground Engineering

[16:00 - 16:30 , Monday 29th Oct. 2018]

Biography

Wang Fuming was born on March, 1957 at Henan Province. He graduated from Dalian University of Technology with doctoral degree in 1987. In 1996, he was awarded National Science Fund for Distinguished Young Scholars. Currently, he is the laboratory director of National Engineering Laboratory of Detection and Maintenance Technology of Major Infrastructures, the director of Henan Co-innovation Center of Water and Transportation Infrastructure Security. His academic work includes the president of Chinese Non-excavation Technology Council, the Committee Member of Water Conservancy Engineering, the Expert Group Member in the field of Modern Transportation Technology.

Prof. Wang engaged in security maintenance theory and research of infrastructure in long time and have systematic achievements in aspects of water seepage prevention and control, the diagnose and treatment of hidden diseases. Prof. Wang was awarded the Second Prize of National Technology Patents once, the Second Prize and Third Prize of National Award for Science and Technology Progress once, respectively, International Academic Research Award of Non-excavation and Henan Province Outstanding award of Science and Technology. He was elected as the academician of Chinese Academy of Engineering in 2015.

Abstract

With the rapid development of water conservancy, transportation and the municipal engineering infrastructure and a large number of aged disrepair project, engineering safety become significantly important relating with people's lives and property security. Leakage, water gushing, subsidence, collapse and other unexpected disasters caused heavy losses and social influence. The traditional excavation and maintenance methods affected traffic, wasted resources and polluted environment, which already cannot

satisfy the urgent demand of our country's infrastructure maintenance. The content of this topic is Non-water reacted polymer grouting material properties, Non-water reacted polymer grouting material propagation mechanism, Diseases treatment technology, Flexible anti-seepage wall technology, Impermeable and seismic isolation technology & Malleable recoverable support technology. The technology has applied in the middle line of South to North Water Transfer Project, the Yellow River embankment, the Suzhou River embankment, the Anxin Section in Beijing-Hong Kong-Macao Expressway, Yesanguan Tunnel in Yi-wan Railway, underground pipes in Guangzhou City and more than 300 projects, which have significant economic and social benefits.