

Malaysian Geotechnical Society

WEBINAR ON **A TALE OF TWO TOWERS**

14 September 2021 (Tuesday), 4.00 pm – 6.00 pm (MYT)



Emeritus Professor John Burland

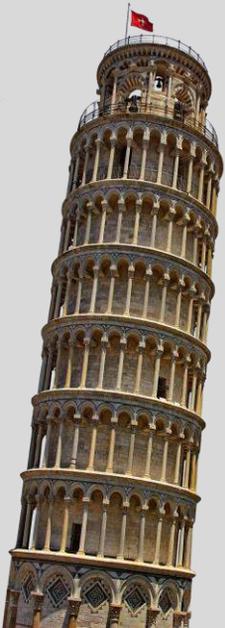
CBE, FREng, FRS, FICE, NAE

SYNOPSIS

Imagine a tower, founded on very soft material and slowly inclining to the point at which it is about to fall over. Worse still, the masonry is so fragile that it could explode at any time. This is a reasonable description of the state of the Leaning Tower of Pisa at the time that the Italian Prime Minister set up a Commission to stabilise the Tower in early 1990. After years of study and trials, stabilisation measures started in February 1999, using a novel method of soil extraction from beneath the high side of the foundation, which brought the Tower back to its inclination in 1838.

Meanwhile the inclination of the Big Ben clock tower has been influenced by a number of construction activities. These include the construction of the underground car park beneath New Palace Yard in the 1970's and, more recently, the construction of the London Underground Jubilee Line extension tunnels and the New Westminster Station. The movement of Big Ben has been controlled by a different but equally novel method of injecting grout beneath the low side of the foundation.

Professor Burland will describe the response of these two famous towers to the stabilisation works.



SPEAKER'S PROFILE

Emeritus Professor John Burland is an Emeritus Professor and Senior Research Investigator at the Department of Civil and Environmental Engineering of Imperial College London. He was educated in South Africa and studied Civil Engineering at the University of the Witwatersrand. He returned to England in 1961. After studying for his PhD at Cambridge University, Professor Burland joined the Building Research Station in 1966, became Head of the Geotechnics Division in 1972 and Assistant Director in 1979. In 1980 he was appointed to the Chair of Soil Mechanics at the Imperial College London.

John Burland has made wide-ranging contributions to the principles and the application of soil mechanics. His research work includes the development of critical state soil mechanics and the development of the Modified Cam Clay constitutive model, field measurements of the deformation of geological strata, precision methods of measuring small strains in laboratory tests, and a synthesis of the mechanical properties of sedimentary deposits. His knowledge and expertise is widely recognised, and he has been involved in many important engineering projects since the early 1970s, including ensuring the stability of the London Big Ben Clock Tower during the extension of the London Underground Jubilee Line and the stabilisation of the Leaning Tower of Pisa.

He has received many awards and medals including the Kelvin Gold Medal for Outstanding contributions to Engineering, the Harry Seed Memorial Medal of the American Society of Civil Engineers for distinguished contributions as an engineer, scientist and teacher in soil mechanics and the Gold Medals of the Institution of Structural Engineers, the Institution of Civil Engineers and the World Federation of Engineering Organisations. He has been awarded six Honorary Doctorates and he is a Fellow of the Royal Academy of Engineering, the Royal Society and is a Foreign Member of the US National Academy of Engineering. In 2002 he was President of the Engineering Section of the British Association and he was Vice President (Engineering) of the Institution of Civil Engineers, London from 2002 to 2005. In 2005 he was appointed CBE (Commander of the Most Excellent Order of the British Empire) for services to Geotechnical Engineering.

BEM Approved CPD Hours: 2 Ref. No.: To Be Advised

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Registration Fee

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Non Members: **RM20.00 per person**

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