



THE HONG KONG  
POLYTECHNIC UNIVERSITY

DEPARTMENT OF  
BUILDING SERVICES ENGINEERING



## SPEAKER

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[Ref: Mistakes in Applying Computational Fluid  
Dynamics]

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D a t e 31 July 2014 (Thu)

T i m e 7:00 – 8:00 pm

V e n u e Room Z2-003  
The Hong Kong  
Polytechnic University

C P D L E C T U R E

## Mistakes in Applying Computational Fluid Dynamics

*Research material in this talk was compiled  
from a project funded by the Construction  
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- Free Admission -

## Schedule

6:45 pm Registration

7:00 pm Talk by Professor W.K. Chow

### Organized by

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## ABSTRACT

In applying Fire Engineering Approach to determine fire safety provisions for projects failing to comply with prescriptive codes, Computational fluid Dynamics (CFD) has been used in the past decade. A common area is to predict smoke spread in large halls and in subway stations. Nevertheless, the simulation of solid combustion using CFD had already led to arguments and debates while going through the assessment. Consequently, CFD results have to be carefully justified, say using hot smoke tests in atria or tunnels.

In this talk, mistakes made in CFD will be outlined with challenges discussed. Points to note on evaluating CFD prediction are proposed. A recommendation for assessing CFD results is proposed.