International Association for Computer Methods and Advances in Geomechanics

Speaker

## Chandrakant Desai Memorial Webinar Series*

# When Equations Met Experiments

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**Sunday, Sep 28 | 10:30 - 11:30 P.M. (U.S. Central Time)**

To register, scan the QR code or visit: https://bit.ly/3HTbhkA

*Hosted via TEAMS*

**ABSTRACT**

Where do the twain meet – mathematical modelling and experimental approach? Can either of these approaches ever individually achieve the goal of arriving at the truth? These timeless and enduring dialogues unfolded between the maestro (*Prof. Chandra S. Desai*) and the speaker, who underwent complete transformation from an experimentalist, trained by (Late) *Prof. Yudhbir*, to a modeler, under the perpetual supervision of Prof. *P K Basudhar*. This webinar, dedicated to Chandra Desai, a philosopher, a friend and a unique motivator, traces this intellectual journey where equations met experiments, and abstraction met observations. It is a reminiscence of the philosophical divergence between mathematical modelling and experimentation in the field of science/technology/engineering, focusing on how each method produces knowledge about the physical world, a pursuit also connected to the notion *Sukshma & Sthool*. The essence of these dialogues often converged on the realization that, instead of positioning mathematical modelling and experimentation as opposing paradigms, the *Sukshma* to *Sthool* can be attained by building a bridge between them. As Niels Bohr famously said "Opposites are not contradictory but are complementary and as *Chandra* practiced it" !!!!

**BIO**

Dr. D. N. Singh has been a faculty member of Civil Engineering at the Indian Institute of Technology Bombay since 1994. He completed his early education in Lucknow, India and obtained his Bachelor's, Master's, and Doctoral degrees from IIT Kanpur in 1986, 1989, and 1993, respectively. His teaching and research span in diversified areas of geotechnical engineering, e.g. environmental geotechnology, mechanics of unsaturated soils, soil characterization (thermal/electrical), contaminant transport, mineralogical characterization, industrial waste utilization and recycling, bio-solids, centrifuge modeling, geothermal energy, gas hydrates and CCUS & CCU. He has published 359 articles (269 referred journals), supervised 43 Doctoral (5 ongoing) and 36 Masters theses, filed 45 patents (34 granted including 1 US), and 4 Copyrights. He consults with several major companies and worked on externally funded projects for different agencies. He has established a state-of-the-art Environmental Geotechnology Laboratory in IIT Bombay. He is the founder and Editor-in-chief of *Environmental Geotechnics*, ICE Publishing, London, and has been serving on the editorial boards of several reputed journals. He chaired the 12th IACMAG (Goa, 2008) and has received several awards: Outstanding Contributions Medal 2022, Richard Feynman Prize 2014, John R. Booker Excellence Award 2011, Excellent Contributions Award 2008, Canadian Geotechnical Journal Fredlund Award 2019, and SP Research Award 2003. He has authored three books and is a Fellow of INAE, ASCE, and ICE (UK).

***This webinar series is intended to retain the legacy of Prof. Chandrakant Desai for his original and seminal contributions to Geomechanics.**