TITLE:  **2023 Terzaghi Lecture:  Contributions Towards Geoparameter Evaluation Using the Cone Penetration Test**

**ABSTRACT:** On the 60-year anniversary since the first Terzaghi Lecture was given in 1963, this presentation provides an overview review of select analytical and empirical developments towards the evaluation of soil engineering parameters using the cone penetration test (CPT) and piezocone (CPTU). Specifically, the assessment of effective stress friction angle, state parameter, and preconsolidation or yield stress of clays, silts, and sands from CPTU are covered, supplemented by new case studies. The evaluation of undrained rigidity index, piezocone dissipations, clay sensitivity, and remolded undrained shear strength are also discussed. The lecture concludes with a brief look at CPT equipment, new developments, and future directions.

**BIO:** Dr. Paul Mayne is an international consultant on geotechnical site characterization and author of ***Synthesis 368 on Cone Penetration Testing*** (2007; [www.trb.org](http://www.trb.org)), co-author on the 2019 ***NCHRP Manual on Subsurface Investigations***, and ***The Cone Penetration Test (2023): Better Information. Better Decisions*** ([www.conetec.com](http://www.conetec.com)). With 48 years in geotechnics, Paul has produced some 380 publications, delivered over 170 lectures, and conducted over 130 continuing education courses. He served as a faculty member at Georgia Tech from 1990 to 2021 and was the chair of the international committee TC 102 on in-situ testing from 2000-2013 and as ISSMGE Vice President for North America from 2014 to 2017. Dr. Mayne began the series of International Conferences on Site Characterization that were held in Atlanta (1998), Porto (2004); Taiwan (2008); Pernambuco (2012); Brisbane (2016), Budapest (2022), and Barcelona (2024), as well as assisted in the five series of International Symposia on CPT held in Sweden (CPT'95), California (CPT'10), Las Vegas (CPT'14), Delft (CPT'18), and Bologna (CPT'22). In addition, Dr. Mayne has been active in professional associations including ASCE, ASTM, TRB, DFI, ADSC, CGS, USUCGER, and ISSMGE. Paul is married with one daughter and plays bass guitar.

Sincerely

Paul