Abstract

Dr. Isbuga will present some of his past and current research interests in geotechnical engineering and oil and gas industry. The boundary condition challenge faced in a penetration simulation, which is representing a pile in geotechnical engineering or a ballistic weapon penetrating the granular soil, and the computational approach to overcome the issue will be briefly presented. The second part of the presentation will be a summary of Dr. Isbuga's current efforts on the mathematical modeling of deep foundations, the large-scale testing for ground improvement methods, and the investigation of the earthquake geo-risk potential of cities with the help of geographic information system (GIS). The presentation will finish with his experience as a design engineer at BP America.

Short Bio:

Dr. Isbuga received his B.S. degree in Civil Engineering from Cukurova University in 2002 and his Ph.D. degree in Civil Engineering from the University of Colorado, Boulder,CO in 2012. After working as a development manager in the Mechanics Group at Research and Development Division of Simulia (Abaqus), Dassault Systems, Providence, RI for a year, he joined the Tubular Design Team at Global Wells Organization BP America, Houston, TX as a design specialist. He worked as an assistant professor at Hasan Kalyoncu University between 2016 - 2019 and recently joined the Faculty of Civil Engineering Department at Izmir Institute of Technology.