Zenon Medina-Cetina, PhD
Associate Professor
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Dr. Medina-Cetina is Associate Professor and holder of the Zachry Career Development Professorship II at Texas A&M University in the Zachry Department of Civil & Environmental Engineering. He holds a join appointment in the Harold Vance Department of Petroleum Engineering and the Department of Ocean Engineering in the College of Engineering, and a joint appointment in the Department of Geography in the College of Geosciences.

He leads the Stochastic Geomechanics Laboratory SGL (2008 - Present), comprised by fourteen students (10 PhDs, 1 MSc and 3 Undergraduate), conducting research in probabilistic applications in engineering, to improve current practices on risk assessment and management, related to natural and anthropogenic threats, having social, economic and/or environmental impacts (http://zenon-sgl.tamu.edu).

At TAMU he leads the largest and most active international faculty-driven project called the "Yucatan Initiative" (http://yucatan-initiative.tamu.edu), which defines a collaboration between Texas A&M and Yucatan's Research Consortium (SIIDETEY) in Mexico. This projects aims at developing joint research, academic, and service projects to generate well-being and sustainable regional economic development between the states of Texas in the USA and of Yucatan in Mexico (2014-present).

Dr. Medina-Cetina is a Civil Engineer from the Universidad Autonoma de Yucatan (UADY) Mexico (Highest Honors, Soil Dynamics, 1994), and a Master of Engineering from the Universidad Nacional Autonoma de Mexico (UNAM, Geostatistics, 1996). While at the UNAM, he obtained a faculty adjunct position in the College of Engineering to teach Probability and Statistics and worked as a research assistant for the Instituto de Ingenieria (I de I ,1996 - 2001). During this same period of time, he worked as independent consultant, where he got involved in some of the most challenging international geotechnical projects of the time (in Mexico and Internationally, 1998-2001), by introducing geostatistical analysis on large scale site characterization projects, to account for the influence of material heterogeneity in soil-structure interaction problems, both onshore and offshore.

In 2001 Dr. Medina-Cetina was awarded the Fulbright Scholarship to pursue graduate studies in the U.S., where he obtained a Master of Science and a Philosophy Doctorate at The Johns Hopkins University (JHU, Stochastic Mechanics, 2001- 2006). After completing his graduate studies in the U.S, he held a dual appointment at the Norwegian Geotechnical Institute in Oslo Norway (NGI, 2006 - 2008), at the International Centre for Geohazards (NGI-ICG) and at the Computational Geomechanics Division (NGI-CGD). His research and consulting interests Stochastic Geomechanics include Risk Mapping for Geospatial Systems; Risk, Reliability and Sensibility Analysis; Probabilistic Site Characterization for Integrated Studies (Geology, Geophysics and Geotechnical); and Uncertainty Quantification of Multi-Physics Processes.

Dr. Medina-Cetina has complemented his professional and academic career by serving twice as Chair of the Offshore Site Investigation and Geotechnics Committee (OSIG) of the Society for Underwater Technology (SUT, 2012-2015). In 2013 he was named 'SUT Fellow', and in November 2015 he was elected President & Chair of the SUT branch in the U.S. (SUT-US), where he led its structural, operational and technological reforms. In 2019 he was re-elected to serve a second term as

President & Chair of SUT-US (2019 – present). Dr. Medina-Cetina also serves as TAMU's Associate Director of the Center for Geospatial Sciences, Applications and Technology (GEOSAT, 2017-Present). Recently he was appointed founding Secretary of the Technical Committee Machine Learning and Big Data (TC-309) of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE, 2018-Present).