



Look Who's a D.GE

Timothy D. Stark, PhD, PE, D.GE, F.ASCE



TIMOTHY D. STARK

Dr. Timothy (Tim) D. Stark is a professor of civil and environmental engineering at the University of Illinois at Urbana-Champaign (UIUC), where he specializes in geotechnical and geoenvironmental engineering. He earned his master's degree in engineering from the University of California at Berkeley (UCB) in 1984 and his PhD from Virginia Tech in 1987. He started his academic career at San Diego State University in 1987 and then moved to the UIUC in 1991, where he continues to teach undergraduate and graduate courses today. Dr. Stark is a full professor and CEE Excellence Faculty Scholar at the UIUC.

He currently serves as an editor of ASCE's *Journal of Geotechnical and Geoenvironmental Engineering* and chairs the Geo-Institute's Embankments, Dams, and Slopes (EDS) technical committee. In 2005, he was elected a Fellow of ASCE,

and in 2010 was inducted as a Diplomate of the Geo-Institute Academy of Geo-Professionals. He is a registered professional engineer in six states. Dr. Stark's areas of expertise include the static and seismic stability of natural and manmade slopes, fully softened and residual shear strengths for slope-stability analyses, 3D slope-stability analyses of unsaturated and reinforced slopes, transient and unsaturated seepage analyses, shear strength of liquefied soils, and interface strengths, design scenarios, and suitable factors of safety for geosynthetic-lined slopes.

What class did you enjoy the most while in school?

I particularly enjoyed my calculus courses as an undergraduate at the University of Delaware (UD) and my slope stability and shear strength courses at the UCB with J. Michael Duncan.

What was your favorite project?

There are quite a few, but the two projects that have had a significant impact on me and my career involve landslides and floodwall failures. While a graduate student at the UCB, I worked as a staff engineer with Woodward-Clyde Consultants during the summer of 1983, investigating a number of landslides caused by the heavy rains of 1982 and 1983. I oversaw the drilling, sampling, field and laboratory testing, and monitoring of about 15 landslides in natural slopes. I used the subsurface data and test results to perform slope-stability analyses and design remedial measures, which sparked my interest in shear

strength and slope-stability issues. This interest resulted in my master's research on inverse slope-stability analyses of landslides and my doctoral research on the upstream slope failure in the San Luis Dam, both under the supervision of J. Michael Duncan. This early research allowed me to pursue many different topics related to the static and seismic stability of natural and manmade slopes throughout my career.

I think specialty certification can be helpful in identifying people who are qualified to practice in the design, peer review, construction, and/or litigation phases of projects.

// Look Who's a D.GE

What is your favorite television show or movie?

On television I enjoy historical dramas such as *The Americans*, *Narcos*, *Boardwalk Empire*, and *The Crown*. I have many movie favorites, including *Casablanca*, *Vertigo*, *Top Gun* (scenes of San Diego), *A Civil Action*, *The Big Short*, *Hoop Dreams*, and *Jerry McGuire*.

Where did you spend most of your childhood, and what was it like for you to grow up there?

I grew up in Newark, DE. Our house was in a wooded area outside of Newark, which allowed me, my siblings, and neighbors to be outdoors year-round: playing basketball, fishing, building tree forts, and swimming in local ponds and creeks in the summer, and sledding and playing ice hockey on the frozen ponds in the winter.

I frequently attended UD sporting events, including watching many successful UD football teams.

When did you realize that you wanted to study civil engineering? What were the key factors in your decision to become a civil engineer?

My father was a civil engineering professor at the University of Delaware, with a focus on construction management, and he introduced me to civil engineering. As a result, when I started my undergraduate studies at the UD, I focused on civil engineering, but was undecided about which area to pursue. I initially thought I wanted to be a structural engineer, but performing the structural design of a hotel during my senior year encouraged me to also consider geotechnical engineering. After working for Woodward-Clyde Consultants in San

Francisco, I pursued a master's degree in geotechnical engineering, which has been an interesting and challenging field for me ever since. I developed my initial interest in geology and geo-related fields from my high school earth sciences course and teacher.

What do you feel are the biggest challenges on the horizon for the profession?

I think a big challenge for the profession is to attract young, talented people into civil engineering and, in particular, geotechnical engineering. I frequently have difficulty finding talented people and/or students for great job opportunities in the geotechnical profession that are sent to me, as well as finding talented students for my various research projects. If infrastructure spending is going to increase significantly, we will need more talented

ASCE CAREER CONNECTIONS

Whether moving along your current career path, looking to make a change, or ready to hire your next employee, ASCE's CAREER CONNECTIONS is

YOUR BLUEPRINT FOR THE FUTURE



Find your next engineering genius with a resume database of 27,000+ applicants or begin your career search with a job-listing database of 600+ jobs.



ASCE's Career Connections is part of the Engineering & Science Career Network.

careers.asce.org

// Look Who's a D.GE

people to design, construct, inspect, and operate these large and important projects. If we attract talented and energetic people, they will find new technological breakthroughs to solve, manage, and digitally interconnect the challenges of a complex project and attract other young talented people to the profession. These breakthroughs will help our engineering practice and improve the management of these projects, improve and shape client expectations, and provide deliverables that result in successful completion of these complex projects.

Do you have a message about specialty certification that you'd like to share with other professional engineers?


I am an advocate for specialty certification. I think specialty certification can be helpful in identifying people who are qualified to practice in the design, peer

review, construction, and/or litigation phases of projects. This is becoming a problem with larger and more complex projects because people extend their expertise to get and stay involved instead of limiting their role to their expertise. Specialty certification may help alleviate this problem so expensive and time-consuming geotechnical problems do not develop.

Was the effort to get the D.GE worth it?

Absolutely. I believe that this specialization program helps define the body of knowledge and expectation for our professionals to achieve and update this advanced level of knowledge. I think the program could be expanded to include a database of the areas of expertise for each member. That way, if there is a question, a client or court could review the database to determine if the

subject area is within a specific person's expertise. We should always strive to make ourselves and the geotechnical profession more valuable and transparent to the public, clients, and judges.

I routinely use the D.GE and PE designations as part of my name in my professional correspondence and activities. By doing so, it conveys to others that I am an engineer, and when they ask about the meaning of the letters, it provides an opportunity for me to describe what geotechnical engineers and civil engineers do and how they impact society. It also reinforces to me the responsibilities that I have to my profession, the ASCE Code of Ethics, and my commitments to society because public safety and a lot of money is at stake in our projects. 

For the complete article, please visit: geoprosessionals.org.

One Site. Precise Data. Fast Results. ASCE 7 Hazard Tool

ASCE 7 Hazard Tool is a quick reliable way to look up key design parameters, specified in ASCE 7-10 and 7-16. Easy-to-use mapping features quickly retrieve your choice of hazard data such as wind, seismic, ice, rain, flood, snow, and tsunamis. Generate and download a PDF report with your results to include in your engineering proposals.



12-Month Subscription Information:

List Price: \$60 ASCE Member: \$45

Corporate Multi-site licensing is available

Get started at asce7hazardtool.online