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Education and professional licensure. Dr. J. David Rogers directs S&T's *Virtual Geotechnical Database Laboratory* and serves as the Associate Director of S&T's *Natural Hazards Mitigation Institute*. Dr. Rogers holds degrees from the California State Polytechnic University (B.S., Geology 1976) and the University of California, Berkeley (MS, Civil Engineering, 1979; Ph.D. Geological and Geotechnical Engineering, 1982). Dr. Rogers is a professional civil engineer, geologist, engineering geologist, and hydrogeologist in California. He is a fellow of the Geological Society of America and the American Society of Civil Engineers, a Presidential Engagement Fellow of the University of Missouri System, and an Honorary Fellow of the Harry S. Truman Library Institute.

Private sector experience. From 1984 to 2001 he served as the CEO of Rogers/Pacific, Inc., a civil/structural/geotechnical firm with offices in the San Francisco, Los Angeles, and Honolulu metro areas. He was also a general partner of Rogers-Caulfield Construction Management, which specialized in innovative stabilization of failing slopes impacting hydraulic structures, linear infrastructure, utilities, and transportation corridors in the western USA and across the Pacific Basin. He has served as principal investigator of numerous post-disaster assessments of structural failures, earthquakes, hurricanes, landslides, floods, volcanic eruptions, tsunamis, highways, dams, and levee failures on six continents.

Focus on geoforensics. Dr. Rogers has extensive experience in evaluating the stability of natural slopes, subaqueous landslides, levees, dams, and submerged hydraulic structures. In the wake of Hurricanes Katrina and Rita in 2005 he was selected by the U.S. Geological Survey to be a member of their investigation team, and then as a member of the National Science Foundation's Independent Levee Investigation Team. The State of Louisiana designated Rogers as one of the principal instructors of their Flood Protection and Ecosystem Restoration Professional Development Program in 2007-09. In 2008 Dr. Rogers received a grant from the National Science Foundation to lead a three-university effort to assess the levee and flood infrastructure failures caused by widespread flooding of the upper Mississippi basin in Minnesota, Wisconsin, Iowa, Illinois, and Missouri. During the 2011 flooding of the lower Missouri and Mississippi Basin he evaluated flood damage between Montana and the Gulf of Mexico, with particular emphasis on the sediment deposited in the Mississippi Delta. He has developed courses for the Army Corps of Engineers in *Evolution of Flood Control Engineering* and *Geotechnical Construction Practice*. Rogers is recognized as an expert in geotechnical site characterization and problem solving, by blending the natural and historic resources unique to each site.

Transition to Academia. In the fall of 1994, he accepted a faculty appointment in civil and environmental engineering and landscape architecture and environmental planning (GIS Laboratory) at his alma mater, the University of California, Berkeley. In July 2001 he accepted the Karl F. Hasselmann Chair in Geological Engineering at the Missouri University of Science & Technology.

Research Interests. Prof. Rogers' research interests center on the evaluation and mitigation of natural hazards, including levees and flood control infrastructure, dams, and hydraulic structures, site characterization, virtual geotechnical databases, tunnels and underground openings, fluvial geomorphology, geohydrology, geoforensics, and the evolution of geotechnical engineering theory and practice. He has also developed artificial intelligence techniques for interpretation of remotely sensed data, combining processing of digital terrain elevation data, SAR, LiDAR, INSAR, DEM files, and multispectral & infrared imagery acquired from inexpensive drone platforms. This work has been funded by the National Science Foundation, U.S. Geological Survey, National Earthquake Hazard Reduction Program, National Geospatial Intelligence Agency (NGA), Defense Intelligence Agency (DIA), Defense Advanced Research Projects Agency (DARPA), and the Federal Highway Administration (FHWA). Much of his work is posted at www.mst.edu/~rogersda and on his personal website at www.jdavidrogers.net/

Supervision of Postdoc Scholars and Graduate Students

- Supervised eight postdoctoral scholars (2004-2021)
- Major field advisor for 27 Ph.D. dissertations (2001-2021) and 9 M.S. theses (2002-2021)
- Service on committees of 86 Ph.D. students and 38 M.S. theses (1998-2021)

Publications. Rogers has authored over 240 technical papers, articles, book chapters, and research reports, many of which deal with levees, dams, and slope stability issues, world-wide. These include:

- 62 Peer Reviewed Articles in Archival Journals (1987-2021)
- 1 National Academy of Engineering Report (2013)
- 13 Peer Reviewed Chapters in Books (1988-2020)
- 39 Peer Reviewed Articles in Special Publications (1991-2020)
- 45 Peer Reviewed Articles in Conference Proceedings (1980-2022)
- 30 reports on externally funded research (1978-2016)
- 60 Miscellaneous Publications and Conference Proceedings (1985-2017)

Professional Recognition. Rogers' work on landslide hazards, mitigation techniques, dam and levee failures have been recognized by several awards, including:

- ***The 2022 Robert Schuster Medal*** is a joint award from the Association of Environmental & Engineering Geologists and the Canadian Geotechnical Society that recognizes excellence in geohazards research in North America. The medal is awarded on alternate years to Canadian and American nominees.
- ***Karl and Ruth Terzaghi Outstanding Mentor Award*** of the Association of Environmental & Engineering Geologists (2016)

- **Gold Publication Awards** from the American Society of Business Publication Editors for feature articles on Hoover Dam (2011) and the Panama Canal (2015) in *Civil Engineering*.
- **Presidential Citations** from the Association of Environmental & Engineering Geologists (AEG) for his forensic evaluations of levee failures in Hurricane Katrina (2006); and in 2010 for his engineering geology and geotechnics course posted on YouTube with >532,000 viewings.
- **R.H. Jahns Distinguished Lecturer in Engineering Geology Award** of AEG and GSA (1996)
- **Carl Irving Wheat Memorial Award** of the Historical Society of Southern California for his forensic modeling of the 1928 St. Francis Dam failure (1996)
- **E.B. Burwell Award** of the Geological Society of America (1994)
- **Rock Mechanics Award** of the National Research Council (1994)
- **Distinguished Project Award** of the American Public Works Association (1994)

Named Lectures: *Sigma Xi College of Distinguished Lecturers* (1999-2001); 1999 ASCE *GeoExpo Queen Mary Lecture*; 2001 *Trent Dames Civil Engineering Heritage Lecturer* of the Huntington Library; 2002 *California Water Colloquium Lecturer* for the University of California; 2005 *Distinguished Lecturer for the Kentucky Geotechnical Engineering Group*; the *Roy B. Hunt Lecture in Applied Geology* (2007) at the University of Pennsylvania, keynote presentations for the 2005, 2007, and 2018 Association of Environmental & Engineering Geologists. In 2009 he delivered the *George Riveschl, Jr. Lecture in Applied Sciences* at the University of Cincinnati. In 2011 he gave the 1st Annual *CSM-USGS Geohazards Lecture* at the Colorado School of Mines. In 2011, 2016, 2017, and 2018 he presented *Outstanding National Civil Engineers Biography Lectures* at the annual meetings of the American Society of Civil Engineers. In 2018 he served as keynote speaker for the Canadian Geotechnical Society in Toronto and the Plenary Keynote Lecture for the 13th World Congress of the International Association of Engineering Geology in San Francisco. In 2020-21 he was a *Presidential Engagement Fellow* for the University of Missouri system to speak to general audiences. In 2022 he delivered the **3rd Legacy Lecture on Dam Safety** and plenary keynote address at the annual meeting of the United States Society on Dams in San Diego.

Presentations for professional societies and government agencies

- 37 Keynote Presentations with published abstracts (1996-2022)
- 84 Invited Presentations with published abstracts (1984-2021)
- 150 Presentations at professional meetings with published abstracts (1976-2021)
- 85 Technical Presentations at society meetings (1976-2021)
- 102 Invited Lectures for other universities (1978-2021)
- 32 Invited Lectures for government agencies (1978-2014)
- 43 Instructor for workshops and short courses (1984-2022)

Professional Society Affiliations. American Geophysical Union; American Institute of Professional Geologists; American Society of Civil Engineers; American Society for Photogrammetry and Remote Sensing; American Society for Testing and Materials; Association of Environmental & Engineering Geologists; Association of Soil and Foundation Engineers; Chi Epsilon, Earthquake

Engineering Research Institute; Geological Society of America; International Association of Engineering Geologists; International Commission on Large Dams; International Landslide Research Group; International Society for Rock Mechanics; International Society for Soil Mechanics & Foundation Engineering; National Society of Professional Engineers; Society of American Military Engineers; Tau Beta Pi; and United States Society on Dams.

Teaching. Rogers teaches undergraduate courses in physical geology, engineering geology & geotechnics, subsurface exploration, evolution of flood control engineering, military geology, and the capstone senior design and problem-solving course. His graduate courses include geotechnical construction practice and applications of geological engineering, which are taught year-round (fall, spring, and summer) for S&T's online master's program and the master's degree program for the Army Corps of Engineers. All 15 lectures from his engineering geology course are posted on YouTube at www.youtube.com/watch?v=fvoYHzAhvVM&t=39s to advertise S&T's distance learning program (532,000 viewings to date). It is one of two online courses world-wide that are approved for continuing education credits by the British Geotechnical Association.

Teaching Awards

- 7 Outstanding Teaching Awards from the Department of Civil & Environmental Engineering at the University of California-Berkeley (1994-2001)
- 20 Outstanding Teaching Awards from S&T Committee on Effective Teaching and S&T School of Extended/Global Learning (2002-2020)
- Outstanding Professor Award of Excellence (2017)
- Extraordinary Faculty/Staff Award from Missouri S&T Student Council (2015)
- Senior Faculty Award Missouri S&T Academy of Mines & Metallurgy (2014)
- Institution Faculty of the Month Award, National Residence Hall Honorary Society (2013)

Teaching short courses. In 1984 Dr. Rogers began teaching short courses on geologic hazards and engineering mitigation techniques for the Universities of Wisconsin, Michigan, California, Northeastern University, and the Georgia Institute of Technology. In 1987 he and his Rogers/Pacific associate Dr. Robert B. Olshansky published a 67-page article on "*Landslide Policy in the United States*" in Ecology Law Quarterly, which is the most cited reference on public policies to curtail slope stability hazards. In 1993 his efforts to educate decision makers was recognized by the **Award of Merit in Environmental Education** by the Association of Bay Area Governments in San Francisco.

Instruction of University and Agency-Sponsored Short Courses

- 3 Short courses for the UM-Rolla and Missouri S&T (2004-2008)
- 6 Short courses for UCLA and U.C. Berkeley (1998-2002)
- 23 short courses for the University of Wisconsin-Extension (1984-2022)
- Foundations in Tension short courses for Georgia Institute of Technology, University of Michigan, and Northeastern University (1987-89)
- 20 short courses for the Association of Bay Area Governments (1988-1998)
- 17 short courses for the International Conference of Building Officials (1989-1998)

- Advanced Slope Stability Course for the Federal Highway Administration (1994-95)
- 17 short courses on remote sensing for US Department of Defense (1986-94)

Public Service - Expert and Advisory Panels

- Rogers is currently serving as Lead Technical Advisor appointed by The Partnership for Resilient Communities, an NGO coordinating the mitigation schemes for the January 2018 fire-flood debris flows in Montecito, CA which killed 23 people, destroyed 65, and damaged 462 residences and 28 commercial structures, causing >\$1 billion in damages.
- In 2014-16 Rogers served on the Forensic Expert Team for the State of Washington Attorney General investigating the Oso Landslide (State Route 530 Landslide), which was the deadliest in American history (43 fatalities).
- In 2011-13 he served on the National Academies Panel charged with examining "*Levees and the National Flood Insurance Program: Improving policies and practices.*"
- From 2011-16 he served on the *Resilient and Sustainable Infrastructure Networks* team funded by the National Science Foundation to make a five-year examination of the California Bay Delta flood protection system.
- In 2010-12 he was a member of the *Mississippi Delta Science & Engineering Special Team* convened in wake of the DeepWater Horizon spill in the Gulf of Mexico. The team's work was summarized in the book "*Perspectives on the Restoration of the Mississippi Delta: The Once and Future Delta,*" Springer Science, Amsterdam (2014).
- In 2005-10 he served on the *Coastal Louisiana Recovery Panel* convened by Environmental Defense Fund to evaluate mitigation measures that might be employed to protect low-lying coastal areas from hurricane damage.

Public Service - Media Interviews. Since coming to S&T in 2001 Rogers has served as a frequent contributor to network news services, newspapers, talk radio stations, *PBS*, *NPR*, and numerous TV documentaries. He averages about 15 interviews per year. The most frequent interviews have been with the following media outlets:

- 51 interviews - New Orleans Times-Picayune
- 37 interviews - Fox News and Fox Nation (for the *American Built* series)
- 23 interviews on Talk Radio shows in St Louis, MO, Springfield, MO and Los Angeles, CA
- 19 interviews - Associated Press
- 16 interviews - New York Times and NY Times magazine
- 12 interviews – MSNBC and NBC News affiliates
- 11 interviews – National Public Radio (NPR)
- 9 interviews with the St. Louis Post-Dispatch and the Sacramento Bee
- 7 interviews with the Los Angeles Times and six with the Public Broadcasting System
- 5 interviews with CBS News and ABC News affiliates; 5 interviews - Failure magazine
- Podcasts for The Atlantic, Newsy.com, Open Field Radio, Green Sense Radio, and WHYY Radio
- 3 interviews for the Wall Street Journal, Nature, Risk Management, Weather Channel, USA Today, National Geographic, CNN News, Time magazine, The Diplomat, Fortune magazine, Washington Post, and the San Francisco Chronicle