



Mechanical Engineering
Academy of Distinguished Alumni

Amanda Dodd, PhD

Distinguished Mechanical Engineer, 2020

BSME, The University of Texas at Austin, 2001
MSME, The University of Texas at Austin, 2003
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*Senior Manager, Computational Science and
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Dr. Amanda Dodd is currently employed by Sandia National Laboratories (SNL) as the senior manager of the Computational Sciences and Analysis Group. The group consists of five departments conducting high-impact research and development in computational and information sciences, multi-physics modeling and simulation, and decision support frameworks to impact multiple core programs: Nuclear Deterrence, Energy and Homeland Security, and other national security applications. Amanda also manages Sandia's Advanced Scientific Computing Validation and Verification program.

Amanda graduated from The University of Texas at Austin with a bachelor's degree in 2001 and a master's degree in 2003, both in mechanical engineering. She finished her graduate studies at the University of California at Berkeley in 2009, where she earned a PhD in mechanical engineering.

Amanda joined Sandia National Laboratories in 2003 as a technical expert in the decomposition of solid materials, heat transfer, and combustion. She has experience at both of Sandia's major laboratories in Albuquerque, New Mexico, and Livermore, California. Amanda was promoted into technical management in 2014, where she worked in three different roles before being promoted to her current role in 2019. These roles included managing a Thermal/Fluid Science and Engineering department, a multidisciplinary group of engineers and researchers with expertise in fluid mechanics and heat and mass transfer. This role included

developing and managing bodies of work for DOE's Vehicle Technologies Office and the Advanced Scientific Computing Validation and Verification program and beginning to represent Sandia in the Fire FORUM (a group of directors from fire research laboratories around the world).

Amanda then moved to Austin for a year and a half in a role to develop partnerships with The University of Texas at Austin. This role within Sandia's Academic Alliance program focused on partnering with universities to build strategic research collaborations, accelerate the adoption of new technologies, and sustain and engage human capital. Amanda then moved back to California to manage an Energy Innovation department at Sandia, which has three major focus areas: employing a multidisciplinary research approach to develop innovative solutions to energy concerns; providing materials expertise for solar, nuclear, and fusion energy; and serving as a deeply embedded partner in the commercialization of these technologies. In addition, Amanda managed Sandia's submissions and awarded projects from DOE's ARPA-e program.

Amanda currently lives in Oakland, California with her husband, Chris, and her two dogs. Outside of work, they can be found skiing, backpacking, hiking, and gardening. She tries to make trips back to Texas regularly to see family and to visit Austin for recruiting trips to engage with the next generation of The University of Texas engineers.