

2021 Design Day Faculty**AEROSPACE ENGINEERING****Ahmad Bani Younes, Ph.D., Assistant Professor**

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Dr. Bani Younes is an Assistant Professor in the Department of Aerospace Engineering. He received an M.S. in Aerospace Engineering from the University of Dayton and a Ph.D. in Aerospace Engineering from Texas A&M University. Dr. Bani Younes' research interests lie in the areas of optimization, estimate and control applications in dynamical systems; guidance, navigation, and astronautics; space robotics and autonomous UAS; and algorithm development. After his successful achievement in building the Spacecraft Platform for Astronautics & Celestial Emulation (SPACE) at Khalifa University, Dr. Bani Younes is currently developing a Space GNC and astronautics laboratory at SDSU. It aims to be a 6DOF facility that supports comprehensive studies and hardware experiments for sensing, guidance, dynamics, and control of space operations in an operationally relevant environment. The lab conducts research in robotic sensing and control with an aim to enhance the fields of proximity operations, human-robot interaction, stereo vision, swarm robotics, and autonomous aerial vehicles.

**Geoffrey S. Butler, Lecturer**

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Mr. Butler is a working professional aerospace engineer involved in the design and analysis of aircraft for both military and civil applications. He has over 39 years of experience in the aerospace industry and has contributed to the development of vehicles ranging from cruise missiles, to unmanned aircraft, to hypersonic vehicles, as well as launch vehicles. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA) and is a member of the AIAA Missile Systems Technical Committee. He has been a lecturer teaching aerospace engineering courses at SDSU including Dynamics, Astrodynamics, Stability and Control, and Aerospace Engineering Applications (AE 460) for over 25 years, and applies a thorough yet practical, applied engineering approach. He was awarded the AIAA Outstanding Teacher award in 2015.

CIVIL, CONSTRUCTION & ENVIRONMENTAL ENGINEERING**Mark Filanc, PE, CEO, J.R. Filanc Construction Company Inc., Lecturer**

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Mark Filanc is the CEO of J.R. Filanc Construction Company Inc. and has over 40 years of experience in water/wastewater design and construction, as well as extensive expertise in all areas of project management. He is a registered professional engineer in the State of California and has been designated as a Design-Build Professional in Design-Build Institute of America's (DBIA) charter group for lifetime experience. He is past chairman and current member of DBIA's Water Committee, past President of the San Diego Chapter of AGC, and an instructor at the national level for AGC's Supervisory Training Program. Mark also serves on the SDSU College of Engineering Dean's Advisory Board, the Department of Civil, Construction & Environmental Engineering Industry Advisory Board, and is a lecturer for CIVE 495 Senior Design. Mark holds a Bachelor of Science degree in Environmental Engineering/Water from California Polytechnic State University, San Luis Obispo, and a Master of Science degree in Civil Engineering, specializing in Construction Management, from Stanford University.



James R. Haughey, PE, MBA, LEED AP, ENV SP, Lecturer

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Jim Haughey is Vice President with Michael Baker International in San Diego, California. Jim has over 25 years of experience in Design-Build with an emphasis in public social infrastructure, military engineering, healthcare, aviation, and school development. He is a registered Professional Engineer, LEED Accredited Professional, Certified Quality Manager (CQM), and Envision Sustainability Professional (ENVSP). Jim has a BS in Civil Engineering (BSCE) from San Diego State University and has an MBA from the University of Phoenix. Jim is a Past President of APWA and serves on several industry boards including Society of American Military Engineers (SAME), ACE Mentorship San Diego, Design Build Institute of America (DBIA), SDSU College of Engineering Dean's Advisory Board, and SDSU CCEE Industry Advisory Board. He is currently the West Region Design-Build Practice Leader and is also serving as an Adjunct Engineering Lecturer at SDSU (CIVE 495).



John Prince, PE, PMP, QSD, Lecturer

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John Prince has been teaching at SDSU since 2011 with CIVE 100 Intro to Civil Engineering and 2012 with CIVE 495 Senior Design. John is a practicing civil engineering consultant as Co-Owner and San Diego Office Principal for DELANE Engineering. John's initial goal and continued passion for teaching at SDSU is to enhance the industry involvement and knowledge of the students, helping bridge the gap between academia and profession and prepare students for their careers. John is an alumnus of SDSU where he met his wife, who is also a Civil Engineer. They now have two children (both girls, 6 and 10) and John is most proud that his girls are now very active skiers!

ELECTRICAL & COMPUTER ENGINEERING



Barry L. Dorr, PE, Lecturer

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Barry Dorr is a full-time lecturer in SDSU's Department of Electrical and Computer Engineering. Prior to that he worked for San Diego Electronics companies for 35 years as a design engineer and project manager. Between 1995 and 2006 he owned a small product development firm creating digital radios, control systems and audio systems for local manufacturers. He holds eight patents for various communication, control, and calibration systems. Professor Dorr's Senior Design course (EE/COMPE 496) emphasizes practical applications of the fundamentals taught in the ECE curriculum completed within a framework of industry-standard project management practices and personal/team ethics.

MECHANICAL ENGINEERING



Scott Shaffar, Ph.D., Lecturer

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Dr. Scott Shaffar is responsible for the development and implementation of the San Diego State University Mechanical Engineering Senior Design Capstone program (ME 490) including course content and program management through all phases from project definition to final system demonstration. This program includes project management, system engineering, research, ideation, detailed design, engineering analysis, fabrication, assembly, test, and customer delivery. Previously, Dr. Shaffar retired from Northrop Grumman Corporation after a 34-year career. In his assignment at retirement, Dr. Shaffar served as a senior director for Northrop Grumman Aerospace Systems, a premier provider of manned and unmanned aircraft, space systems and advanced technologies critical to our nation's security. Dr. Shaffar earned a Bachelor of Science in aerospace engineering from the California State Polytechnic University, Pomona, and a master's and doctorate in mechanical and aerospace engineering from the University of California at Irvine. He is a member of the American Society of Quality, Society of Automotive Engineering, and the American Society of Mechanical Engineers.