

Daniel C. Haworth is a Professor of Mechanical Engineering in the Department of Mechanical & Nuclear Engineering at the Pennsylvania State University. He joined the Penn State faculty in 1999, following 13 years at GM's Research & Development Center and 12 years as an adjunct faculty member in the School of Engineering and Computer Science at Oakland University. Dan teaches courses in the thermal-fluids sciences, numerical methods, and advanced automotive technology at the undergraduate and graduate levels. His research is primarily in the computational thermal-fluids sciences, emphasizing chemically reacting turbulent flows. This includes direct numerical simulation to extract new fundamental physical insight, advanced physical models and numerical algorithms for Reynolds-averaged and large-eddy simulation modeling approaches, and applications to practical systems, particularly IC engines. At Penn State, he has built a funded research program with grants and contracts from the National Science Foundation, the Department of Energy, the National Institutes of Health, the Pennsylvania Department of Environmental Protection, and industrial sponsors. He is the Director of the Vehicle Systems & Safety Program at Penn State's Pennsylvania Transportation Institute, is faculty advisor to Penn State's Advanced Vehicle Technology Competition team, and is PI of a NSF-sponsored K-12 project that provides graduate and undergraduate fellowships for research and outreach in advanced transportation technology.