Dr. Goodings will discuss priorities and opportunities for engineering research at the National Science Foundation, however this will not be an escorted tour through the NSF website. She will give an overview of current funding opportunities; discuss issues influencing research planning; and provide insights into the proposal and award system. The focus will be on early career researchers including Ph.D. students with faculty aspirations, and on programs led by the Division of Civil, Mechanical, and Manufacturing Engineering, but it will also be relevant to any faculty members wishing to learn more about the mysteries of NSF.

Biography: Deborah J. Goodings is director of the Division of Civil, Mechanical, and Manufacturing Innovation (CMMI) in the Directorate for Engineering at the National Science Foundation. The Division uses its $200 million annual budget to support research that advances knowledge to enable manufacturing, design and use of engineering materials, and building technologies across scales from nanometers to kilometers, to improve the resilience and sustainability of the nation’s civil infrastructure, including reduction of risk and damage from natural and human-induced disasters; and to expand theory in engineering mathematics, engineering decision-making, and systems control and engineering. In addition, the Division partners across the Foundation to develop shared opportunities for collaborative research. These emphases create opportunities for fundamental research in support of the nation’s prosperity, health, and infrastructure.

Goodings is on leave from her position as Dewberry Chair Professor of Civil Engineering at George Mason University where she chaired the Department of Civil, Environmental, and Infrastructure Engineering during a five year period of realignment, and expansion of both personnel and resources. Before joining George Mason, Goodings held a faculty appointment in the Department of Civil and Environmental Engineering at the University of Maryland for nearly 30 years. In addition to her geotechnical engineering research and teaching, she co-founded and co-directed the UMD Master of Engineering and Public Policy program with the School of Public Policy; and was the founding faculty advisor of the university’s hugely successful chapter of Engineers Without Borders-USA. An endowed chair in Engineering for Global Sustainability was established in her honor upon her departure from the University of Maryland.

Goodings has held leadership positions in professional societies, and served on university and agency visiting committees that draw on her research and education expertise, including National Research Council committees and boards. Her research has been recognized by the Transportation Research Board with the Fred Burggraf Award, and by the Department of the Army with the Outstanding Civilian Service Medal. Goodings earned her B.A.Sc. in civil engineering from the University of Toronto, and her Ph.D. in geotechnical engineering from Cambridge University. She is a Fellow of the American Society of Civil Engineers, and a registered professional engineer.