# Innovative Design in Scientific Research

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### About the Seminar:

Creative designers imagine, make, and evaluate artifacts that are novel and disruptive. Design Science Research (DSR) is a problem-solving paradigm that seeks to enhance human knowledge via the creation of innovative artifacts. Simply stated, DSR seeks to enhance technology and science knowledge bases via the creation of innovative artifacts that solve problems and improve the environment in which they are instantiated. The results of DSR include both the newly designed artifacts and a fuller understanding via design theories of why the artifacts provide an enhancement (or, disruption) to the relevant application contexts. DSR is a prominent form of Engaged Scholarship in which multiple key stakeholders (researchers, users, clients, sponsors, and practitioners) collaborate to understand and address an important, complex problem/opportunity. This presentation will review the basic concepts and goals of DSR. Pragmatic guidance is provided for successful performance of DSR projects that combine both academic rigor and applied relevance. Several on-going research directions applying DSR ideas will be discussed.

### About the Speaker:

Alan R. Hevner is a Distinguished University Professor and Eminent Scholar in the Information Systems and Decision Sciences Department in the Muma College of Business at the University of South Florida. He holds the Citigroup/Hidden River Chair of Distributed Technology. Dr. Hevner's areas of research interest include design science research, information systems development, software engineering, distributed database systems, healthcare systems, and Internet of Things computing. He has published over 250 research papers on these topics and has consulted for a number of Fortune 500 companies. Dr. Hevner received a Ph.D. in Computer Science from Purdue University. He has held faculty positions at the University of Maryland and the University of Minnesota. Dr. Hevner is a Fellow of the American Association for the Advancement of Science (AAAS) and a Fellow of the Association for Information Systems (AIS). He is a member of ACM, IEEE, and INFORMS. Additional honors include selection as a Parnas Fellow at Lero, the Irish software research center, a Schoeller Senior Fellow at Friedrich Alexander University in Germany, and the 2018 Distinguished Alumnus award from the Purdue University Computer Science Department. From 2006 to 2009, he served as a program manager at the U.S. National Science Foundation (NSF) in the Computer and Information Science and Engineering (CISE) Directorate.