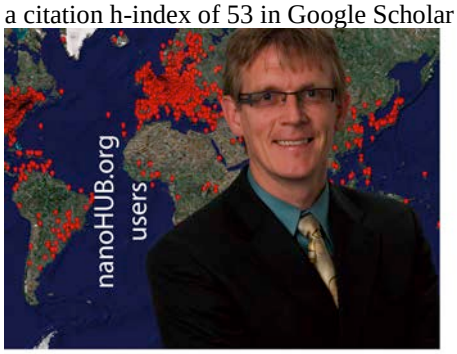
Presenter bios:

Gerhard Klimeck is the Reilly Director of the Center for Predictive Materials and Devices (c-PRIMED) and the Network for Computational Nanotechnology (NCN) and a Professor of Electrical and Computer Engineering at Purdue University. He received his Ph.D. from Purdue University in Quantum Transport in 1994. Before re-joining Purdue he worked for 10 years in Industry (Texas Instruments Central Research Laboratory) and a Government Laboratory (NASA/JPL). His research interest is the modeling of nanoelectronic devices, bridging the gap between material science and device engineering, and impact studies through science gateways. He is a fellow of the IEEE, American Physical Society, and the Institute of Physics. His over 470 peer reviewed printed publications resulted in a citation h-index of 53 in Google Scholar and 43 in the ISI Web-of-Science.



Alejandro Strachan is a Professor of Materials Engineering at Purdue University and the Deputy Director of the Purdue's Center for Predictive Materials and Devices (c-PRIMED). He leads the efforts on uncertainty quantification and materials NSF's Network for Computational Nanotechnology. Before joining Purdue, he was a Staff Member in the Theoretical Division of Los Alamos National Laboratory and worked as a Postdoctoral Scholar and Scientist at Caltech. He received a Ph.D. in Physics from the University of Buenos Aires, Argentina, in 1999. Among other recognitions, Prof. Strachan was named a Purdue University Faculty Scholar (2012-2017), received the Early Career Faculty Fellow Award from TMS in 2009 and the Schuhmann Best Undergraduate Teacher Award from the School of Materials Engineering, Purdue University in 2007. Prof. Strachan's research focuses on the development of predictive atomistic and molecular simulation methodologies to describe materials from first principles, their application to problems of technological importance and quantification of associated uncertainties. Application areas of interest include: coupled electronic, chemical and thermo-mechanical processes in devices of interest for nanoelectronics and energy as well as polymers and their composites, molecular solids and active materials, including shape memory and high-energy density materials. His research has resulted in over 95 peer reviewed journal publications.

Dr. Krishna Madhavan is an associate professor in the School of Engineering Education. In 2008 he was awarded an NSF CAREER award for learner-centric, adaptive cyber-tools and cyber-environments using learning analytics. He leads a major NSF-funded project called Deep Insights Anytime, Anywhere (http://www.dia2.org) to characterize the impact of NSF and other federal investments in the area of STEM education. He also serves as co-PI for the Network for Computational Nanotechnology (nanoHUB.org) that serves hundreds of thousands of researchers and learners worldwide. Dr. Madhavan served as a Visiting Researcher at Microsoft Research (Redmond) focusing on big data analytics using large-scale cloud environments and search engines. His work on big data and learning

analytics is also supported by industry partners such as The Boeing Company. He interacts regularly with many startups and large industrial partners on big data and visual analytics problems. He was one of 49 faculty members selected as the nation's top engineering educators and researchers by the U.S. National Academy of Engineering to the Frontiers in Engineering Education symposium.