## Biosketch

Ernesto E. Marinero

*Professor OF MATERIALS AND ELECTRICAL AND COMPUTER ENGINEERING*

Ernesto E. Marinero joined Purdue University on February 2013 after a successful industrial research career in Silicon Valley. He holds academic appointments in the Schools of Materials Engineering and Electrical and Computer Engineering. Professor Marinero is also the Deliberate Innovation for Faculty Director for Nanotechnology, Materials Engineering and Manufacturing. In this capacity he leads interactions between Purdue academic units and research centers engaged in nanotechnology and materials science to foster the creation of new research thrusts, the development of new technologies and their industrial applications. He leads the creation of collaborative efforts in Power and Energy between Purdue University, the Battery Innovation Center and the Naval Surface Warfare Center at Crane for technology development and business creation.

Marinero’s research experience in both fundamental and applied science has been gained through appointments in Europe and the USA. This includes the Max Planck Institute in Göttingen, Germany; Stanford University, California; the IBM Almaden Research Center and the Hitachi San Jose Research Center both in San Jose, California. He is an experimentalist whose multi-disciplinary research projects have spanned diverse fields such as Chemical Physics, Materials Science, Semiconductor Physics, Synthesis of Nanostructured Materials and Thin Films, Laser Physics and Picosecond Phenomena, Laser-Materials Processing, Magnetism, Surface Science and Nanoscale Sensor Device Physics and Fabrication. His scientific work has resulted in 135 journal publications as well a numerous granted patents in the USA (57), Asia (32) and Europe (15) patents. His inventions have been utilized in IBM’s and Hitachi’s products.

Professor Marinero has been the Principal Investigator of 26 research projects with academic and research institutions in the USA, Europe and Latin America. He has participated in NSF, DARPA and DOE committees and managed a DARPA sponsored Academia-Industry Consortium. He has served as Meeting Chair, Organizer and member of several Committees of the Materials Research Society. He is a Fellow of the American Physical Society and was the Chair of the Forum for Industrial and Applied Physics (FIAP), the largest unit of the APS. He is also the representative for the APS to the AAAS Section on Industrial Science and Technology. He is an entrepreneur and the co-founder of a Purdue University startup focused on applications of graphene for health and energy; he is a Board of Directors Member of Nano-Meta Technologies Inc., a Purdue startup developing novel applications of plasmonic materials. Senior Design Teams under his supervision have won (2014) and placed second (2015) in the prestigious Burton Morgan Business Competition, Undergraduate Division. He is a dedicated promoter of academic interactions with Latin America and is the Director of the Partnership between Purdue University and the Instituto de Innovación y Transferencia de Tecnología de Nuevo León, México, a holistic program involving educational, joint research and business development components. Since the creation of the partnership in 2014, eleven graduate students have enrolled Purdue University and are pursing PhD studies in the Schools of Materials, Electrical and Computer, Biomedical and Civil Engineering.