

## Fall 2013: Three New Eng'g Professors

7/02/13



Drs. Ehsan Ghotbi & Eric Payton

Three new professors have been hired to teach and conduct research beginning this fall. Two are materials science assistant professors and one is an assistant professor of mechanical engineering.

Two new materials science assistant professors and one new mechanical engineering professor will be teaching at Alfred University beginning this August. Eric Payton, PhD and David Lipke, PhD are materials scientists, while Ehsan Ghotbi, PhD is a mechanical engineer.

Dr. Payton will be teaching Physical Metallurgy I; Dr. Lipke's courses remain to be assigned; and Dr. Ghotbi will be teach Engineering Economy.

The range of research interests runs from the relationships between microstructures and their material properties to the compositional development of high-temperature ceramics to design optimization of renewable energy systems. All three are also recent graduates.

Dr. Payton's research currently focuses on integrating computation and experimental techniques to investigate the relationships between microstructures and material properties. His focus is on the advanced use of electron backscatter diffraction for microstructure characterization. Dr. Payton is convinced that the integration of computational and experimental approaches to understanding and solving engineering problems is a pathway to rapid materials technology development. This is a method for remaining competitive and enhancing economic growth.

Dr. Lipke's current research focuses on the compositional development of oxidation-resistant ultra-high temperature ceramics. He is interested in reaction-based materials processing and relation technological application of chemical thermodynamics.

Dr. Ghotbi's current focus of interest is in design optimization, renewable energy, systems optimization and game theory. He is working on new algorithms to apply game theory in multi-level and multi-objective problems, especially

in mechanical design problems.

Dr. Payton received his PhD from Ohio State University in 2009 and wrote his thesis on characterization and modeling of grain growth in Ni-based superalloys for turbine disk applications. Post doctorally, he worked for two years at Ruhr University in Germany followed by a competitive fellowship at the Federal Institute for Materials Research and Testing in Berlin.

Dr. Lipke received his PhD from the Georgia Institute of Technology in May 2011. This was followed by a competitive fellowship at the Air Force Research Laboratory/National Research Council.

Dr. Ghotbi received his PhD in mechanical engineering for the University of Wisconsin at Milwaukee in 2013.