Sixteenth Annual Chemical Engineering and Materials Science Research Forum
May 9, 2019, Huntington Club, Spartan Stadium Tower

8:30 Registration, coffee, and get-to-know
8:50 Opening remarks
Donald Morelli Chairperson, Chemical Engineering & Materials Science

Morning Keynote Talks
9:00 Industry 4.0 – generating value from analytics
Bea Braun The Dow Chemical Company
9:30 Thermoelectric energy generation: improving efficiency through crystal chemistry
Alexandra Zevalkink Chemical Engineering & Materials Science
10:00 Multifunctional glass-ceramic biomaterials: An effective tool for combating bacterial resistance
Xanthippi Chatzistavrou Chemical Engineering & Materials Science
10:30 Break

Morning Student Presentations
10:45 Electrochemical double layer at the interface of nanostructured carbon electrodes and ionic liquids
Kirti Bardhwaj (Advisor: G. Swain)
The role of cholesterol oxidation products in food toxicity
Lisauro Maldonado Pereira (Advisor: I. Medina Meza)
11:05 Design and engineering of value-added products from the polylactide (PLA) polymer
Preetam Giri (Advisor: R. Narayan)
Multiscale simulation study of nano-scaled confinement
Kanchan Chavan (Advisor: S. Calabrese-Barton)

Poster Sessions
11:25 Poster Session I
12:15 Lunch
1:00 Poster Session II

Afternoon Student Presentations
1:50 Why do Li dendrites form and grow in solid electrolyte and how to avoid them?
Hong Kan Tian (Advisor: Y. Qi)
Characterization of dislocation evolution using electron channeling contrast imaging and its effect on superconducting properties of Nb
Mingmin Wang (Advisor: T. Bieler)
2:10 Observing and predicting slip transfer across grain boundaries in hexagonal titanium
Yang Su (Advisor: M. Crimp)
Mechanical, thermal, and electrochemical properties of Pr-doped ceria from wafer curvature measurements
Yuxi Ma (Advisor: J. Nicholas)

Afternoon Keynote Talks
2:30 Developing enhanced electrochemical catalysts using spectroscopic insights
Linsey Seitz Chem. & Bio. Engineering, Northwestern University
3:00 Service through chemical engineering: work at the Energy Information Administration
Elizabeth Sendich US Energy Information Administration
3:30 Multidisciplinary initiatives in the College of Engineering and models for successful industry–academia partnerships
Yue Qi Associate Dean for Inclusion and Diversity

Awards and Social Hour
4:00 Recognition of prizes and awards
Donald Morelli Chairperson, Chemical Engineering & Materials Science
4:10 Mixer and light refreshments
5:00 Meeting adjourned