



College of Engineering  
Department of  
Mechanical & Industrial Engineering

## The Robert W. Courter Seminar Series

3:00-4:00pm, Friday, February 15, 2019  
1263 Patrick F Taylor Hall



### Nondestructive Evaluation and Additive Manufacturing: A Journey Through NSF I-Corps, Partnership for Innovation, and SBIR Proposals

by **Les Butler**

Louisiana State University

Years ago, Les Butler earned money for college by driving a bulldozer through Florida wetlands. Ever since then, he has been striving to return to sustainable chemistry. He studied chemistry at the University of Arkansas, and graduated Phi Beta Kappa. Studies in solid-state NMR spectroscopy lead to a PhD in inorganic chemistry from the University of Illinois at Urbana-Champaign. He built a laser spectroscopy system at Caltech during a postdoc. He arrived at LSU in 1983 and did solid-state NMR research for a couple of decades until frustrations with solid-state NMR imaging drove him to imaging with X-rays and neutrons. Together with Dr. Kyungmin Ham, Kip Matthews, and Warren Johnson, the W.M. Keck X-ray interferometry/tomography system was brought to operation in 2017. Now, a similar instrument is under construction at ORNL HFIR CG-1D. A persuasive entrepreneur, Joachim Schulz of Microworks (Karlsruhe) helped create Refined Imaging LLC. Generous collaborators in the LSU Department of Mechanical Engineering helped with key publications in neutron interferometry imaging and additive manufacturing.