

Seminar Announcement

Microelectronics Seminar Series

Join the in-person seminar of the Microelectronics Research Center's Microelectronics Seminar Series.

Time: Monday, April 8th at 11:00 AM – 12:00 PM

Location: 3043 ECpE Bldg Addition

Productization: Peeling the Onion

Dr. Andrew Oliver
Montana State University

Abstract: This talk relates the experience of an engineer and project manager in the creation of semiconductor and MEMS products. Product examples include bolometers, infrared gas sensors, gyroscopes, and surface micromachined mechanisms. The talk covers how the design, fabrication process, package, test, and qualification aspects of a product must be addressed to make a successful product. The fact that these areas often interact makes the job more challenging. The talk includes examples from real products of challenges in these areas that confronted the engineering team. This talk includes the phase gate process used in many companies today and project management. The talk instead is focused on technical challenges and how they were addressed.

Biography: Dr. Andrew "Andy" Oliver PMP MBA Ph.D. has worked for more than 25 years in MEMS, including optical MEMS and microsystems, including nine years at Sandia National Laboratories, where he developed a wafer-level packaging technology. He managed the foundry and packaging relationships for ICx Photonics, which developed infrared-based gas sensors and signaling beacons. He led the team that launched the first MEMS gyroscope at Freescale and investigated the use of uncooled infrared imagers for automotive applications. Andy also worked in industrial outreach at the WIMS² Research Center at the University of Michigan and was an adjunct professor at the University of New Mexico. He is a proud graduate of Iowa State's Electrical Engineering program (B.S. with distinction 1991). In addition, he holds a Ph.D. in electrical engineering from the University of Michigan and an MBA from Penn State University. Currently, he is a senior research scientist at Montana State University studying the applications of MEMS devices to optical systems. His research interests include optical MEMS, packaging, uncooled infrared detectors, and the commercialization of technology. He is on the board of MANCEF, the Micro and Nanotechnology Commercialization Education Foundation.



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