

Prof. Cetinkaya's background is in acoustic/thermoelastic wave propagation, acoustic characterization of solid dosage forms, nano/micro-particle adhesion, laser-based nondestructive testing/evaluation, and non-invasive monitoring additive manufacturing processes. He received his B.S. in Aerospace Engineering from Istanbul Technical University in 1986, and M.S. and Ph.D. in Aerospace Engineering from University of Illinois at Urbana-Champaign, in 1991 and 1995, respectively. Currently, he is a professor of mechanical engineering at Clarkson University. Prof. Cetinkaya is the director of the Photo-Acoustics Research (PAR) Laboratory, and serving as a co-director of Center for Metamaterials (funded by NSF IUCRC). The current active projects at PAR Lab include dynamic behavior of ligand-receptor catch bonds (funded by NSF), real-time monitoring of additive manufacturing processes (Indodema3D), adhesion and detachment of non-uniformly charged nano/micro-particles (NSF and Xerox), and design/testing/evaluation of small-scale sensors (NSF/CAMP/Clarkson), and the mechanical property characterization of solid dosage forms/pharmaceutical materials (Pfizer and Boehringer-Ingelheim). Over the years, the PAR Lab have received funds from the National Science Foundation, Intel, SEMATECH, Xerox Corp., Wyeth Pharmaceuticals, Pfizer Inc., Boehringer-Ingelheim, the US Army Research Office, and Praxair/Electronics, as well as Consortium for the Advancement of Manufacturing in Pharmaceuticals, Center for Advanced Materials Processing (CAMP) at Clarkson, and NYSERDA. He has six granted US patents and three active full patent applications. Prof. Cetinkaya is an ASME Fellow.