About the Editors

Dr. Y. Charles Lu is an associate professor of mechanical engineering at the University of Kentucky and an associate editor of SAE International Journal of Materials and Manufacturing. His research interests include: (1) micromechanics and nanomechanics, (2) polymers, elastomers, composites, and advanced materials, (3) finite-element analysis and mechanical design, and (4) computational materials science. Dr. Lu has authored more than 10 books or book chapters and over 100 technical papers in refereed journals and conference proceedings. He held the research scientist position at the Air Force Research Laboratory, Branch of Composites and Hybrid Materials during the summers of 2007–2010 and visiting professorship at the University of Dayton Research Institute (2012) and Case Western Reserve University (2013). Dr. Lu received the 2010 SAE International Ralph R. Teetor Educational Award for his contributions to mobility-related research, teaching, and student development. He was awarded the U.S. Air Force Summer Faculty Fellowships in 2008 and 2009. He was also the recipient of the Outstanding Mechanical Engineering Faculty Award (2009) and the Wethington Research Award from the University of Kentucky in 2011.

Dr. Lu has extensive experience in the automotive industry, including the positions of senior finite element engineer and senior development engineer at Dana Corporation and research engineer at Akron Rubber Development Laboratory. He was instrumental in designing the first composite oil pan for automotive applications. He has been recognized with six Dana Technical Achievement Awards and was selected as the Dana Engineering Achievement Award Finalist by the Policy Committee in 2002.

Dr. Lu received his PhD in Engineering Sciences from the University of Western Ontario in 2000 and additionally has three master’s degrees in mechanical engineering, materials science, and mathematics. Dr. Lu is a licensed professional engineer (P.E.) in the state of Kentucky.

Dr. Pilla is currently an assistant professor in the Department of Automotive Engineering at Clemson University and holds an affiliated appointment in the Department of Materials Science and Engineering. Dr. Pilla got his PhD from the University of Wisconsin-Milwaukee. He then obtained his postdoctoral training from the Department of Civil Engineering at Stanford University. Prior to joining Clemson University, Dr. Pilla worked as an assistant scientist at the Wisconsin Institute for Discovery at the University of Wisconsin-Madison. Dr. Pilla has edited two books and authored more than 60 scientific articles, including four book chapters, 40 refereed international journal papers, and many peer-reviewed papers at international conferences. Dr. Pilla currently serves as an associate editor of the SAE International Journal of Materials and Manufacturing and series editor of the Polymer Science and Plastics Engineering at Wiley-Scrivener. He also serves on the boards of the Journal of Renewable Materials as well as the Society of Plastics Engineers/Injection Molding Division.

Professor Pilla’s research focuses on the mechanics, processing, and characterization of polymers, multifunctional composites, nanocomposites, sustainable materials, and microcellular foams. His research thrust includes the development of structural foams, biobased and biorenewable materials, gas-assisted foam processing, composites for extreme environments including high-temperature, thermoset composites processing using OOA (UV based) methods, multifunctional materials including self-repairing structural composites, and the evaluation of these materials using experimental mechanics, rheology, thermal, spectroscopic, and microscopic analysis. In addition, his work focuses on the chemistry- and physics-based understanding of joining methods for dissimilar and hybrid materials and structures while investigating the environmental impact through stochastic lifecycle assessment.