

Advanced Manufacturing



Professor Kevin Chou

Professor

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- Published 120+ refereed papers
- Currently supported by NSF, NASA, CFD Research Corp.
- Fellow: ASME
- Chair, ASME MED Manufacturing Processes Technical Committee

Experience Summary

Dr. Kevin Chou is currently a Professor of Mechanical Engineering at The University Alabama (UA). Prof. Chou's research and teaching interest includes design and manufacturing, CAD/CAM, mechanics, metrology, tribology and materials. Dr. Chou received his BS from National Sun Yat-San University and MS from National Taiwan University, both in Mechanical Engineering. He also received his Ph.D. in Industrial Engineering from Purdue University. He conducted post-doctoral research at the National Institute of Standards and Technologies. His current research focus includes electron beam additive manufacturing, diamond-coated tools, and biomedical implants, supported by NSF, NASA, Department of Education, as well as industries. Dr. Chou's group has published over 120 refereed articles and given over 100 presentations in conferences, meetings and invited talks. Dr. Chou currently serves as the Chair of the Manufacturing Processes Technical Committee in the Manufacturing Engineering Division (MED) of ASME. He is also a member of the Scientific Committee of North American Manufacturing Research Institution of SME. Prof. Chou was the Technical Program Chair of the ASME 2011 International Manufacturing Science and Engineering Conference (MSEC). Dr. Chou is a registered Professional Engineer in the State of Alabama and he is also an ASME Fellow.

Main topics:

- **Introduction of Metal Additive Manufacturing**
 - Different Categories of Metal AM Technologies
 - Process Basis and Applications
 - Challenges and Innovations
- **Electron Beam Additive Manufacturing: Process Modeling, Temperature Measurements, Microstructural Analysis and Mechanical Properties**
 - Model Development and Validation
 - Process Parameter Effects
 - Microstructural Evolutions and Characterizations
 - Nanoindentation and Mechanical Properties

