



SENG SEMINAR SERIES

Presentation Topic:

ADDITIVE MANUFACTURING: MORE THAN 3D PRINTING



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3D PRINTING HAS GROWN RAPIDLY, ENABLING QUICK CREATION OF SHAPES FROM COMPUTER MODELS. HOWEVER, IT IS JUST ONE PART OF THE ADDITIVE MANUFACTURING (AM) PROCESS. MOVING FROM PRINTED SHAPES TO FUNCTIONAL PRODUCTS REQUIRES CONSIDERATION OF PERFORMANCE IN REAL-WORLD ENVIRONMENTS. AM UNIQUELY CREATES THE MATERIAL ALONGSIDE THE COMPONENT, TYING PERFORMANCE TO THE MANUFACTURING PROCESS. THIS PRESENTS CHALLENGES IN ENSURING PART QUALITY AND PREDICTING MECHANICAL PROPERTIES, ESPECIALLY IN METAL AM, WHERE MICROSTRUCTURE AND DEFECTS ARE KEY ISSUES. THIS SEMINAR WILL COVER AM TECHNIQUES, PROCESS FLOW, AND INTERDISCIPLINARY RESEARCH ON FATIGUE PREDICTION, MACHINE HARDWARE, NOVEL TESTING, IN-SITU MONITORING, AND MULTI-MATERIAL STRUCTURES.







