



MateriAlZ Seminar Series

Point of Need Additive Manufacturing for the U.S. Army

Friday, April 16, 2021, 11:00 am Phoenix Time

Abstract

Additive manufacturing provides the U.S. Army the ability to repair and replace existing parts in theater. Due to the remote field locations, long transportation time, and the sole source manufacturing of equipment, it can be very costly and untimely to replace critical equipment. The use of additive manufacturing can help overcome these challenges and produce parts "on-demand". This talk will provide an overview of the research interests for the Laser Additive Manufacturing Engineering Team for the CCDC Army Research Laboratory. Also included is how additive manufacturing is used for point of need manufacturing for the U.S. Army, as well as for utilizing the rapid solidification of laser based additive manufacturing for locally controlling mechanical properties through the study of process property relations.

Dr. Andelle Kudzal

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Dr. Andelle Kudzal is a materials engineer at the Combat Capabilities Development Command Army Research Laboratory (CCDC ARL) in the Laser Additive Manufacturing Engineering research group. Her research interests include process property relations and novel materials for additive manufacturing applications, as well as using micro computed tomography for non-destructive part qualification and certification. She received a masters and a PhD in manufacturing engineering from Worcester Polytechnic Institute.



Zoom link: <https://arizona.zoom.us/j/88356498702>