

# AUTM Partnering Forum

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## Advanced Manufacturing: Shaping & Joining Technologies

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**Technologies represented: Updated on 10/4/17**

Machining and Lubrication				
Case Number	Technology Title	Organization	Organization Contact	Contact Email
	<a href="#">Nanofluids &amp; Greases, Physical Vapor Deposition Coatings</a>	SDSM&T AMP Lab	Joseph Wright	<a href="mailto:Joseph.Wright@sdsmt.edu">Joseph.Wright@sdsmt.edu</a>
TEC2008-0079	<a href="#">US Patent No. 9,080,122 - Nanoparticle graphite-based minimum quantity lubrication method and composition</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
Molding, Casting, Forging, Stamping, Extruding and Tooling				
Case Number	Technology Title	Organization	Organization Contact	Contact Email
D160016	<a href="#">Cold Spray Tool and Component Repair</a>	SDSM&T AMP Lab	Joseph Wright	<a href="mailto:Joseph.Wright@sdsmt.edu">Joseph.Wright@sdsmt.edu</a>
TEC2015-0054	<a href="#">US Publication No. 20170067154 - System and Method for Microplasma-Based Three-Dimensional Printing</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
Sheet Forming, Embossing, Cutting and Coating				
Case Number	Technology Title	Organization	Organization Contact	Contact Email
	<a href="#">Laser Powder Deposition, Cold Spray, Plasma Electrolytic Oxidation, Physical Vapor Deposition, Nano-enhanced Atmospheric Plasma Spray</a>	SDSM&T AMP Lab	Joseph Wright	<a href="mailto:Joseph.Wright@sdsmt.edu">Joseph.Wright@sdsmt.edu</a>
TEC2017-0092	Patent Pending - A One-Pot Approach for the Preparation of Fluorine-Free Omniphobic Polyurethanes Coatings	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>

TEC2018-0008	Liquid Polymer/Thermoset (NANO) Composites as New Tools for Flexible High Barrier Fabrication	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
TEC2013-0046	<a href="#">US Publication No. 20160137802 - Methods for coating metals on hydrophobic surfaces</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
TEC2015-0046	<a href="#">Patent Pending - Multiscale Porous Polymer Films</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
Welding and Brazing				
Case Number	Technology Title	Organization	Organization Contact	Contact Email
D130007	<a href="#">Laser Powder Deposition, Cold Spray, Friction Stir Welding, Ultrasonic Welding</a>	SDSM&T AMP Lab	Joseph Wright	<a href="mailto:Joseph.Wright@sdsmt.edu">Joseph.Wright@sdsmt.edu</a>
TEC2017-0068	<a href="#">Patent Pending - Brazing Methods Using Porous Interlayers and Related Articles</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
Adhesives, Mechanical Fastening and Novel Joining				
Case Number	Technology Title	Organization	Organization Contact	Contact Email
	<a href="#">Conductive Adhesives</a>	SDSM&T AMP Lab	Joseph Wright	<a href="mailto:Joseph.Wright@sdsmt.edu">Joseph.Wright@sdsmt.edu</a>
TEC2010-0057	<a href="#">US Patent No. 9,464,658 - Hybrid Fastener</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
TEC2015-0089	<a href="#">US Publication No. 20160284449 - Reversible Adhesive Compositions and Related Methods</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
Inspection, Validation and Quality Control				
Case Number	Technology Title	Organization	Organization Contact	Contact Email
	<a href="#">Property correlation with Non-destructive inspection parameters</a>	SDSM&T AMP Lab	Joseph Wright	<a href="mailto:Joseph.Wright@sdsmt.edu">Joseph.Wright@sdsmt.edu</a>
TEC2016-0105	Patent Pending - Rotating Current Excitation with Array Magnetic Sensors Nondestructive Testing Probe for Tube Inspection	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
TEC2015-0027	<a href="#">US Publication No. 20160282307 - Transceiver Rotating Field Nondestructive Inspection Probe</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
TEC2014-0112	<a href="#">US Publication No. 20160343106 - Defect Detection System Using Finite Element Optimization and Mesh Analysis</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>

TEC2013-0089	<a href="#">US Publication No. 20160054116 - Scanning interferometry technique for through-thickness evaluation in multi-layered transparent structures</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
<b>Electronics Packaging and Soldering</b>				
<b>Case Number</b>	<b>Technology Title</b>	<b>Organization</b>	<b>Organization Contact</b>	<b>Contact Email</b>
TEC2003-0062	<a href="#">US Patent No. 7,572,343 - Composite metal matrix castings and solder compositions, and methods</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
<b>Other Emerging Shaping and Joining Technologies</b>				
<b>Case Number</b>	<b>Technology Title</b>	<b>Organization</b>	<b>Organization Contact</b>	<b>Contact Email</b>
TEC2016-0094	<a href="#">Patent Pending - Powder Composition to Achieve a Near Full Density with Stainless Steel in 3D Printing</a>	Michigan State University	Bradley Shaw	<a href="mailto:shawbr@msu.edu">shawbr@msu.edu</a>
	<a href="#">NSF Industry/University Cooperative Research Center on Metal Forming</a>	University of New Hampshire	Brad Kinsey	<a href="mailto:Brad.Kinsey@unh.edu">Brad.Kinsey@unh.edu</a>
<b>Molding, Casting, Forging, Stamping, Extruding and Tooling</b>				
<b>Case Number</b>	<b>Technology Title</b>	<b>Organization</b>	<b>Organization Contact</b>	<b>Contact Email</b>
D150016	<a href="#">Discontinuous-Fiber Thermoplastic Composites with Engineered Properties</a>	SDSM&T Cape Lab	Joseph Wright	<a href="mailto:Joseph.Wright@sdsmt.edu">Joseph.Wright@sdsmt.edu</a>