

# SVC Meeting Poster List, 28-29 March 2019

## SVC Posters

SVC #	Title	Presenter	Advisor
#46	Mechanoluminescent paintable light sources in automotive lighting systems	S. Krishnan (G)	V. Sundaresan
#49	Embedded fiber optic sensors for structural health monitoring	S. Chilelli (G)	M. Dapino
#51B	Ultrasonic additive manufacturing for automotive structures: UAM process modeling	G. Venkatraman (G)	M. Dapino L. Headings
#51C	Ultrasonic additive manufacturing for automotive structures: UAM for structural reinforcement	Y. Rong (G)	M. Dapino B. Gingerich L. Headings
#51D (New)	Mechanical characterization and microstructure analysis of ultrasonic additive manufactured steel	T. Han (G)	M. Dapino L. Headings
#52	Design of matrix and particulates for simulcure 3D printing technique	P. Vijayaraghavan	V. Sundaresan
#54A	Robust Integrated Magnetic Composites (RIMaC) for Magnetic Gears: Magnetic Additively-Manufactured Structural Hybrid (MASH)	I. Nas (G). B. Losey (G)	M. Dapino
#54B	Robust Integrated Magnetic Composites (RIMaC) for Magnetic Gears: Magnetic Gear Drives (MGDs) for automotive application	I. Nas (G), B. Losey (G)	M. Dapino
#57	Flexible piezoelectric sensors for vehicle applications	A. Ramanathan (G)	M. Dapino L. Headings
#58A	Optical multifunctional materials – Architectures for structural sensors: Architecture for mechanoluminescent structural sensors and sensing platforms	P. Vijayaraghavan	V. Sundaresan
#58B (New)	Optical multifunctional materials – Architectures for structural sensors: Photoluminescent phosphors for visualizing thermomechanical stress in power electronic devices	V. Venkatesh (G), S. Sajid (U)	V. Sundaresan
SEED	Integrated hyperdamping material systems for vibration, noise, and shock attenuation applications	C. El-Helou (U)	R. Harne
SEED	On the feasibility of a temperature state observer for powder bed fusion additive manufacturing	N. Wood (G)	D. Hoelzle
SEED	Aeromechanic analysis and optimization of boundary layer ingestion turbomachinery	A. Wernick (G)	J.P. Chen
REU	Investigation of metal corrosion by in-situ electrochemical force microscopy	C. Joyce (U)	H. Cho
SEED	Solution processing of thermochromic vanadium dioxide smart windows	A. Gibson (U)	V. Doan-Nguyen
#40E	Characterization and modeling of passive and adaptive bushings and mounts: automotive system isolation	R. Singh	R. Singh
#56	Dynamic friction characterization of icy road surfaces	R. Singh	R. Singh

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## Related Research Posters

<b>Title</b>	<b>Presenter</b>	<b>Advisor</b>
Metal matrix composites, parts, and components made with ultrasonic additive manufacturing	B. Gingerich	M. Dapino
Joining of carbon fiber reinforced polymers and metals	H. Guo (G)	M. Dapino L. Headings B. Gingerich
Modeling the large deflection bending behavior of stranded electrical wires for digital manufacturing applications	S. Vemula (G)	M. Dapino
Shape Morphing Arm Robotic (SMART) manipulators for simultaneous safe human-robot interaction and high performance manufacturing	Y. Zhou (G)	M. Dapino
Modeling and experiments on magnetoactive metamaterials for mechanical properties adaptation	Z. Nick (G)	R. Harne
Partial activation of modular and foldable tessellated acoustic arrays for wave focusing	N. Zhao (G)	R. Harne
Deployable acoustic arrays for confined wave focusing applications	V. Srinivas (G)	R. Harne
Modeling of ultrasonic parametric arrays for personalized sound fields in vehicle applications	A.A. Saksena (G)	R. Harne