

SVC Meeting Agenda, 2-3 November 2017

Tenth Annual 2017 Project Review & IAB Meeting
NSF IUCRC Smart Vehicle Concepts Center <www.SmartVehicleCenter.org>
Hosted by The Ohio State University
Location: E100 & E525 Scott Laboratory, 201 West 19th Avenue, Columbus, OH 43210

DAY 1: Thursday, 2 November 2017 (Room: E100)

OPEN SESSION for Registered Participants

9:45am – 11:30am	Registration	
9:00am – 11:00am	Short course: Laser Doppler Vibrometry Use and Theory as it Relates to Aerospace, Automotive and Related Testing Applications by David Oliver, VP of Business Development/CTO of Polytec, Inc.	
11:30am – 1:00pm	Lunch – Informal meetings between sponsors and students/researchers	
11:45am	MAE Chair's Welcome Remarks	V. Subramaniam
1:00pm – 2:00pm	Overview of Center Activities	Presenter(s)
1:00pm	Welcome and State of the Center	M. Dapino (OSU)
1:30pm	Overview of Industrial Advisory Board Meetings and Award Presentations	T. Greetham (Moog)
1:45pm	NSF IUCRC Program	A. Marshall (NSF)
2:00pm – 3:00pm	Break (coffee and soft drinks) and Student Posters	
3:00pm – 4:00pm	Emerging Trends in Smart Vehicle Research	Presenter(s)
3:00pm	DNA-based Nanomechanical Devices and Materials for Sensing and Actuation	C. Castro (OSU)
3:30pm	Member Success Story – NASA Glenn Research Center	V. Asnani, J. Scheidler (NASA)
4:00pm – 5:30pm	Student Posters continued & Informal meetings between sponsors and students/researchers	
5:30pm	Adjourn Non-IAB members may visit the labs and interact with students and researchers upon request	

5:45pm – 7:15pm INDUSTRIAL ADVISORY BOARD (IAB) MEETING - Session I (dinner provided) (Room: E525)

Agenda:

- Minutes of May 2017 Meeting and Action items
- Closing of Phase II / Commencing of Phase III
- Spring 2018 Meeting Dates

7:15pm – 7:45pm Executive Session (IAB and NSF only)

DAY 2: Friday, 3 November 2017 (Room: E100) CLOSED SESSION for SVC Sponsors & Invited Observers only

Note: Guests may attend Day 2 (closed session) if they sign the confidential disclosure agreement form.

8:00am – 8:15am	Breakfast (coffee and bagels) & Registration (if not present on Day 1)		
Time	Topic	Presenter(s)	Organization
8:15am – 8:30am	Project Topics, Leaders and Mentors	V. Sundaresan	OSU
	Project Evaluations (LIFE Forms)	V. Hill	VentureWell (NSF Assessment Coordinator)
LIFE Form Website: http://iucrc.com/ Password: to be provided			

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8:30am – 10:10am	Technical Session I: <i>Moderated by Z. Deng</i> (FOR SVC MEMBERS ONLY)	Presenter(s)	SVC #	Project Leader(s)	Mentor(s) (Organization)
8:30am	Characterization and Modeling of Passive and Adaptive Bushings and Mounts: Part F – Inverse Identification Method for Radiator Mounts	R. Ramesh (G)	#40F	R. Singh	Y. Zhang (Ford),
8:50am	Part A – Rubber Bushings	L. Fredette	#40A		C. Gagliano (Honda R&D)
9:10am	Part E – Automotive System Isolation	V. Ravi (G)	#40E	S. Noll	H. Henry (Tenneco)
9:30am	Dynamic Friction Characterization of Icy Road Surfaces	L. Fredette	#56	R. Singh	A. Mathers, R. Burton (TRC)
9:50am	Embedded Fiber Optic Sensors for Structural Health Monitoring	S. Chilelli (G) E. Schultz (U)	#49	M. Dapino	T. Greetham (Moog)

10:10am – 10:30am	Break (coffee and soft drinks)
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10:30am – 11:50am	Technical Session II: <i>Moderated by L. Headings</i> (FOR SVC MEMBERS ONLY)	Presenter(s)	SVC #	Project Leader(s)	Mentor(s) (Organization)
10:30am	Mechanoluminescent Paintable Light Sources in Automotive Lighting Systems	S. Krishnan (G)	#46	V. Sundaresan	D. Detwiler, N. Verwys (Honda R&D)
10:50am	Ultrasonic Additive Manufacturing for Automotive Structures: Effect of UAM Process on Manufactured Parts	X. Chen, Y. Rong (G), T. Han (G)	#51A	M. Dapino, L. Headings	R. Hahnlen (Honda R&D)
11:10pm	UAM Process Modeling	G. Venkatraman (G)	#51B		M. Davis (Battelle)
11:25am	Development of Two Smart Mechanical Components for Reducing Vibration and Noise: Part B – Vibration Damping and Energy Harvesting	Z. Deng, B. Losey (U),	#47B	M. Dapino, Z. Deng	V. Asnani (NASA), D. Detwiler (Honda R&D)
	Magnetic Additively-Manufactured Structural Hybrid (MASH)	I. Nas (G)	#54		

11:55am – 12:30pm	Lunch
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12:30pm – 1:30pm	Technical Session III: <i>Moderated by L. Fredette</i> (FOR SVC MEMBERS ONLY)	Presenter(s)	SVC #	Project Leader(s)	Mentor(s) (Organization)
12:30pm	Design of Matrix and Particulates for Simulcure 3D Printing Technique	P. Vijayaraghavan (G)	#52	V. Sundaresan	P. Buca (Parker Hannifin)
12:50pm	Multiscale Finite Element Simulation of the Mechanical Behavior of Fiberglass Insulation	M. Ji (G), M. Yang (G)	#55	S. Soghrati	A. Davis (Owens Corning)
1:05pm	Morphing Panels for Aerodynamic Performance	S. Chillara (G)	#45	M. Dapino, L. Headings	U. Gandhi (Toyota)

Key: G – Graduate Student U – Undergraduate Student

1:30pm Closed Session Adjourns
(IAB members should go to E525. Non-IAB members may move to labs to talk with students.)

1:30pm-3:00pm INDUSTRIAL ADVISORY BOARD (IAB) MEETING SESSION II (in E525)

- Center Operations –Marcelo Dapino
- LIFE Form Summaries and Discussion – Victoria Hill
- Next Steps in Phase III
- Members' Perspective
- Action Items and Adjourn