

Preliminary SVC Meeting Agenda, 24-25 July 2012

Fifth Annual Summer 2012 Project Review & IAB Meeting
NSF I/UCRC Smart Vehicle Concepts Center <www.SmartVehicleCenter.org>
Hosted by The Ohio Aerospace Institute

Location: The Ohio Aerospace Institute, 22800 Cedar Point Road, Cleveland, OH 44142

DAY 1: Tuesday, 24 July 2012

OPEN SESSION for Registered Participants

Time	Topic	Presenter
9:30 - 10:30	NASA Tour	Open only to US Citizens and Permanent residents
10:30 – 11:30am	Registration	
11:30-4:45pm	OPEN SESSION (for SVC Sponsors and Invited Guests)	
11:30am – 1:15pm	Lunch & Poster Display	Graduate/Undergraduate Students
1:25-1:40	Welcome by NASA	NASA Official
1:40-2:10pm	State of the Center	R. Singh
2:10-2:30pm	NSF I/UCRC Program	NSF Program Director and Evaluator
2:30-2:40pm	IAB Meetings	T. Greetham (Moog)
2:40 – 4:20pm	Research Presentations	
2:40pm	Non-contact Measurement, Visualization, and Analysis of Smart Dynamic Systems	M. Dapino
3:10 – 3:40	Break (Coffee and Soft Drinks)	
3:40pm	Self-healing Gas-Retention Bladder Membrane Incorporating Self-Healing Ionomers	V. Sundaresan
4:10pm	Passive and Adaptive Vibration Control Devices	R. Singh J. Dreyer

4:45pm Adjourn

Day 2: Wednesday, 25 July 2012

CLOSED SESSION for SVC Sponsors and Invited Observers only

Note: Guests may attend Day 2 (Closed sessions) if they sign the non-disclosure form. If interested, contact Caterina Runyon-Spears soonest for the form (runyon-spears.1@osu.edu)

Time	Topic	Presenter	SVC #	Project Leader(s)	Mentor(s) (Organization)
8:00 – 8:30	Coffee and Bagels				
8:30 – 8:40	Project topics, leaders and mentors	M. Dapino			
	Project evaluations (LIFE Forms)	E. Sundstrom			
8:40 – 10:20	Technical Session I (FOR SVC MEMBERS ONLY)				
8:40am	Electrohydrostatic Actuation and Sensing	J. Larson	#1	M. Dapino	T. Walters (Moog)
9:00am	Characterization and Modeling of Passive and Adaptive Bushings and Mounts: Part A – Rubber Bushings Part B – Hydro Bushings Part C - Body Frames	J. Dreyer	#40A	R. Singh & J. Dreyer	C. Gagliano (Honda R&D) & M. Dunlop (TRC) & V. Allgeier (YUSA) & B. Liu (F.tech)
9:20am		T. Chai	#40B		
9:40am		S. Noll	#40C		

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Time	Topic	Presenter	SVC #	Project Leader(s)	Mentor(s) (Organization)
10:00am	Ultrasonic Friction Control	S. Dong	#31A	M. Dapino	A. Fox (Honda R&D)

10:00 – 10:20	Break (coffee and soft drinks)				
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Time	Topic	Presenter	SVC #	Project Leader(s)	Mentor(s) (Organization)
10:20 – 12:20	Technical Session II (FOR SVC MEMBERS ONLY)				
10:20am	Enhanced Methods for Reducing Powertrain Vibration and Noise: Part A - Powertrain Vibration Transmitted through Mounts	J. Liette	#42A	R. Singh & J. Dreyer	B. Kim & T. C. Kim (Hyundai-Kia Motors)
10:40pm	Part B - Reduction of Powertrain Surface Radiated Noise	R. Taulbee	#42B		
11:00am	Development of Interfacial Force Sensing Systems using Experimental and Computational Methods: Part C - Analysis of Vibration Transmission Through Hydrodynamic Bearings for Reduced Noise	N. Masticola	#20C	R. Singh & J. Dreyer	R. Glover (Eaton)
11:20am	Joining of Shape Memory Alloys and Structural Materials		#36	M. Dapino	T. Calkins (Boeing)
11:40am	Multifunctional Composites with Embedded Sensing	R. Hahnen	#7	M. Dapino	M. Norfolk (EWI)
12:00pm	Force Sensing with Galfenol Alloys	T. Walker	#41	M. Dapino	T. Greetham (Moog)

12:20-12:40	Break & Boxed Lunch				
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Time	Topic	Presenter	SVC #	Project Leader(s)	Mentor(s) (Organization)
12:40 – 2:00	Technical Session III (on Sponsored Projects)				
12:40pm	Ni-rich Shape Memory Alloy Fatigue Testing and Modeling		#2.1	D. Lagoudas	T. Calkins (Boeing)
1:00pm	Ni-Rich NiTi and NiTiHf High Temperature Shape Memory Alloys	A. Evirgen	#1.3	I. Karaman	J. Mabe (Boeing)
1:20pm	Development of Interfacial Force Sensing Systems using Experimental and Computational Methods: Part B - Bearing Preload and Stiffness Estimation	R. Singh/J. Dreyer	#20B	R. Singh & J. Dreyer	B. Dykas (Army) & T. Krantz (NASA Glenn)
1:40pm	Thermally Invariant Smart Composites	R. Hahnen	#43	M. Dapino	P. Evans (MIT Lincoln Laboratory)

2:00pm Closed Session Adjourns

2:15-4:15 INDUSTRIAL ADVISORY BOARD (IAB) MEETING

- SVC Operations Report – Raj Singh
- Minutes of Feb. 2012 Meeting and Action items
- LIFE Form Summaries and Discussion – Eric Sundstrom
- Bylaws and Other IAB Items – Tom Greetham
- Smart Materials Database
- Member Perspective – Sponsors
- Next Steps and Winter 2013 Meeting
- Adjourn

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