

# **CFSP Technical Workshop and Annual IAB Spring Meeting**

Dates: April 22-24, 2008 Wichita State University Wichita, KS

## Tuesday, 22 April 2008 CFSP I/UCRC TECHNICAL WORKSHOP

7:00- 8:00-	8:00 8:15	Registrations & Continental Breakfast Welcome		
8:15-	9:15	Review of South Dakota School of Mines & Technology projects (Arbegast)  CFSP04-AMP-02: Intelligent Process Control Algorithms (Complete)  CFSP05-AMP-01: CFSP/CNDE TIE- Effects of Defects in FSW (Complete)  CFSP07-AMP-01: FSW of Titanium Beam Structures (Current)  CFSP07-AMP-03: Refill FSSW of Magnesium Structures (Current)  CFSP07-AMP-04: Distortion Control in Stiffened Structures (Current)  CFSP07-AMP-05: NSF REU Supplemental - IUCRC Management Tools (Complete)  CFSP08-AMP-01 (P): FSW of Gray Cast Iron (Proposed)  CFSP08-AMP-02 (P): NSF Supplemental / VT- Automated Database Tools (Proposed)		
9:15-	10:15	Reviews of University of South Carolina Projects (Reynolds)  CFSP04-USC-01: Thermal Management of Aluminum FSW (Current)  CFSP04-USC-02: Improved Weldability of Titanium Alloys (Current)  CFSP06-USC-01: Dissimilar Metal FSW of Aluminum to Magnesium (Current)  CFSP07-USC -01: Supplemental -Control and Response Variable in FSW (Current)  CFSP08-USC-01 (P): Mg Joint Project / USC Task> (Proposed)		
10:15-		Break		
10:30-				
11:00-	12:00	Reviews of Brigham Young University Projects (Nelson et al)  CFSP04-BYU-01: FSW of X-65 Steels (Complete)  CFSP04-BYU-02: FSW of Austenitic Alloys (Complete)  CFSP06-BYU-01: FSW Tool design study (Current)  CFSP07-BYU-01: FSW&P of Nickel Base Superalloy (Current))  CFSP07-BYU-02: FSW Higher strength HSLA steels (Current)  CFSP07-BYU-03: Comparisons of FSP Models in 304L (Current)  CFSP07-BYU-04: Supplemental -Control and Response Variable in FSW (Current)		
12:00-		Lunch		
1:00-	2:00	Reviews of Missouri University of Science and Technology projects (Mishra)  CFSP05-UMR-01: Friction Stir Microstructural Modification (Current)  CFSP05-UMR-02: Robotic Friction Stir Welding of Thin Sheets (Complete)  CFSP06-UMR-01: E-Design and the FSW Process (VPI TIE) (Complete)  CFSP06-UMR-02: Friction Stir Spot Welding (Complete)  CFSP08-MST-01 (P): Mg Joint Project / MST Task > (Proposed)		
2:00-	2:30	IAB Presentations		
2:30- 2:45-	2:45 3:45	Break Reviews of Wichita State University Projects (Burford) CFSP07-WSU-01: Performance of Discontinuous FSW (Current) CFSP07-WSU-02: Faying Surface Treatments of FSSW (Current) CFSP07-WSU-03: "Low" Z force FSSW (Current) CFSP08-WSU-01 (P): Mg Joint Project / WSU Task > (Proposed) CFSP08-WSU-02 (P): FSW Lap Weld Analysis with FSW Tool Software 2.0 (Proposed)		
3:45- 4:30 -	4:30 10:00	Wrap-up and review of second day activities Tour & Dinner at the Kansas Cosmosphere & Space Center		

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## Wednesday, 23 April 2008 CFSP I/UCRC SPRING MEETING

7:45-	8:00	Registrations
8:00-	8:10	Welcome (Dr. David McDonald – VP Research, WSU / confirming)
8:10-	8:20	Introductions of Participants (Arbegast)
8:20-	8:40	Dr. Rathindra (Babu) DasGupta (NSF) and Dr. Ron Beck (Center Evaluator)
8:40-	9:00	State-of-the-Centers (Arbegast)

### **Review and Life Forms for Current and Continuing Projects**

9:00-	9:10	CFSP07-AMP-01:	FSW of Titanium Beam Structures
9:10-	9:20	CFSP07-AMP-03:	Refill FSSW of Magnesium Structures
9:20-	9:30	CFSP07-AMP-04:	Distortion Control in Stiffened Structures
9:30-	9:40	CFSP05-UMR-01:	Friction Stir Microstructural Modification
9:40-	9:50	CFSP06-BYU-01:	FSW Tool design study
9:50-	10:00	CFSP07-BYU-01:	FSW&P of Nickel Base Superalloy

#### 10:00- 10:30 Break and Poster Session

10:30-	10:40	CFSP07-BYU-02:	FSW Higher strength HSLA steels
10:40-	10:50	CFSP07-BYU-03:	Comparisons of FSP Models in 304L
10:50-	11:00	CFSP07-WSU-01:	Performance of Discontinuous FSW
11:00-	11:10	CFSP07-WSU-02:	Faying Surface Treatments of FSSW
11:10-	11:20	CFSP07-WSU-03:	"Low" Z force FSSW
11:20-	11:30	CFSP04-USC-01:	Thermal Management of Aluminum FSW
11:30-	11:40	CFSP04-USC-02:	Improved Weldability of Titanium Alloys
11:40-	11:50	CFSP06-USC-03:	Dissimilar Metal FSW of Aluminum to Magnesium

### 11:50- 1:00 Lunch

1:00-	1:30	Center Business (Baumann & Sorensen)
1:30-	2:15	IAB Closed Meeting / Site Director Meeting
2.15-	2:30	Technology Road Man Discussion

### **New Project Proposals**

4:30 -	8:30	Tour & Dinner at the Cessna Citation Assembly Plant
3:20 -	4:30	Wrap-up and Discussions
3:10-	3:20	CFSP08-WSU-02 (P): FSW Lap Weld Analysis with FSW Tool Software 2.0 ( <i>Proposed</i> )
2:50- 3:00-	3:00 3:10	CFSP08-WSU-01 (P): Mg Joint Project / WSU Task > (Proposed) CFSP08-USC-01 (P): Mg Joint Project / USC Task> (Proposed)
2:30- 2:40-	2:40 2:50	CFSP08-AMP-01 (P): FSW of Gray Cast Iron CFSP08-MST-01 (P): Mg Joint Project / MST Task > (Proposed)

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## Thursday, 24 April 2008 CFSP I/UCRC Spring Meeting

8:00- 8:05- 9:00-	8: 05 9:00 10:00	Handout Life Form Summaries to IAB Site/Sponsor Meetings to discuss life forms Life form review for entire IAB
10:10-	10:15	Break
10:15-	11:30	IAB Meeting
11:30- 12:00-		IAB feedback Box Lunch
1:00		Adjourn / Tour of NIAR Full Scale Test Facility (at Hawker Beechcraft)

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