**METAL PROCESSING INSTITUTE**

**ACRC/CHTE SPRING MEETING AGENDA**

**November 30 – December 1, 2010**

*WPI Campus Center – Odeum A & B, and C*

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**Wednesday, December 1, 2010**

7:30 a.m. Registration and Continental Breakfast  
*Odeum A & B, Campus Center*

8:00 a.m. Welcome & Opening Comments - *D. Apelian*

8:15 a.m. Opening Remarks from ACRC Chair – *D. Weiss*

8:25 a.m. Opening Remarks from CHTE Chair – *M. Nallen*

8:35 a.m. Overview of the ACRC Research Portfolio – *M. Makhlouf*

9:00 a.m. Overview of the CHTE Research Portfolio – *R. Sisson*

9:20 a.m. Overview of CR³ – *D. Apelian*

9:30 a.m. **Break**

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**PLEASE NOTE:**

Combined Meetings are in black  
Items in blue refer to ACRC meetings  
Items in green refer to CHTE meetings

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**ACRC Project Presentations in Odeum A & B**

9:45 a.m. Predicting the Response of Aluminum Alloys to Heat Treatment (*L. Wu* )

10:15 a.m. Friction Stir Processing of Aluminum Cast Alloys for High Performance Applications (*N. Sun* )

10:45 a.m. Aluminum Nano Composites for Elevated Temperature Applications (*C. Borgonovo* )

11:15 a.m. Helium-Assisted Sand Casting of Aluminum Alloys (*M. Saleem* )
11:45 p.m. Update on Other Externally Funded Projects: HyperCast (M. Makhlouf)
12:00 p.m. High-Performance Die Casting Alloys: Castings for Improved Readiness (M. Makhlouf)
12:15 p.m. High Performance Nano Composite Materials – Superior Weapons through Castings Program – (A. Nabawy)

CHTE Project Presentations in Odeum C

9:45 a.m. Atmosphere vs. Vacuum Carburizing Fatigue Test Comparison (R. Sisson)
10:30 a.m. Carbonitriding and Subcritical/Ferric Nitrocarburizing (R. Sisson)
11:15 a.m. Project Selection (R. Gaster)
11:45 a.m. Grain Growth in Steels (R. Sisson)

12:30 p.m. Buffet Lunch – 2nd Floor Lounge Area
1:30 – 2:30 p.m. Focus Group Meetings - Session I (see schedule attached)
2:45 – 3:45 p.m. Focus Group Meetings - Session II (see schedule attached)
3:45 p.m. Debriefing Odeum A & B
4:00 p.m. Meeting Adjourns
### 1:30 – 3:45 P.M. Focus Group Meetings

#### Session I: 1:30 – 2:30 P.M. Focus Group Meetings (*Three meetings in parallel*)

<table>
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<tr>
<th>Location</th>
<th>Topic</th>
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| **ACRC**   | Friction Stir Processing of Aluminum Cast Alloys for High Performance Applications  
             (N. Sun and D. Apelian)  
             *Chairman’s Room, Campus Center* |
| **CHTE**   | Predicting the Response of Aluminum Alloys to Heat Treatment  
             (L. Wu and M. Makhlouf)  
             *Taylor Room, Campus Center* |

#### Session II: 2:45 – 3:45 P.M. Focus Group Meetings (*Two meetings in parallel*)

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| **ACRC**   | Aluminum Nano Composites for Elevated Temperature Applications  
             (C. Borgonovo and M. Makhlouf)  
             and  
             High Performance Nano Composite Materials – Superior Weapons through Castings Program  
             (A. Nabawy and M. Makhlouf)  
             *Taylor Room, Campus Center* |
| **CHTE**   | Carbonitriding and Subcritical/Ferric Nitrocarburizing  
             (R. Sisson)  
             *Mid-Century Room, Campus Center* |
WPI Campus Center
Meeting Rooms

Top Floor:
Odeum A, B, C
Hagglund Room
Mid-Century Room
Peterson Room

Middle Level:
Morgan Room

Lower Level:
Taylor Room
Chairman’s Room