METAL PROCESSING INSTITUTE
ACRC/CHTE SPRING MEETING AGENDA
May 24-25, 2011

WPI Campus Center – Odeum A and B

Tuesday, May 24, 2011 (Steering Committee and Board Members Only)

1:30 – 3:30 p.m.  ACRC Steering Committee Meeting
Chairman’s Room, Campus Center

4:00 – 6:00 p.m.  CHTE Board Members Meeting
Chairman’s Room, Campus Center

6:30 p.m.  Reception & Dinner (All Members)
ACRC and CHTE Awards to be presented
Higgins House, WPI

Wednesday, May 25, 2011

7:30 a.m.  Registration and Breakfast
Odeum A & B, campus Center

8:00 a.m.  Welcome and Opening Comments – D. Apelian
Opening Remarks from ACRC Chair – D. Weiss
Opening Remarks from CHTE Chair – M. Nallen

8:45 a.m.  Overview of the ACRC Research Portfolio – M. Makhlouf
Overview of the CHTE Research Portfolio – D. Apelian/R. Sisson

10:00 a.m.  Break

PLEASE NOTE:
Combined Meetings are in black
Items in blue refer to ACRC meetings
Items in green refer to CHTE meetings
ACRC Project Presentations in Odeum A

10:15 a.m. Predicting the Response of Aluminum Alloys to Heat Treatment (Lance Wu)
10:45 a.m. Friction Stir Processing of Aluminum Cast Alloys for High Performance Applications (Ning Sun)
11:15 a.m. Aluminum Nano-Composites for Elevated Temperature Applications (Cecilia Borgonovo)
11:45 a.m. High Performance Nano-Composites: Superior Weapons through Casting (M. Makhlouf)
12:00 p.m. HyperCAST – Vehicle Energy Efficiency via SHS Composite Cast Components (M. Makhlouf)
12:15 p.m. Aluminum Die Casting Alloys (M. Makhlouf)

CHTE Project Presentations in Odeum B

10:15 a.m. Nitriding – Fundamentals, Modeling, and Process Optimization (M. Yang)
10:45 a.m. Carbonitriding – Fundamentals, Modeling and Process Optimization (L. He)
11:15 a.m. Atmosphere vs. Vacuum Carburizing Fatigue Test Comparison (L. He, L. Zhang)
11:45 a.m. NDT Testing for Hardness & Carburization Case Depth (L. Zhang, L. He)
12:00 p.m. Grain Growth Kinetics in Steels (G. Guo)
12:15 p.m. Air Products Internship (X. Wang)

12:30 p.m. Lunch in Odeum C, Campus Center

Luncheon Speaker: Dr. Warren Hunt: "Integrated Computational Materials Engineering: Overview and Opportunity"
1:30 – 2:30 p.m.  Focus Group Meetings – Session I (see below)

2:45 – 3:45 p.m.  Focus Group Meetings – Session II (see below)

3:45 p.m.  Reconvene in Odeum A-B

4:00 p.m.  Meeting Adjourns

<table>
<thead>
<tr>
<th>Time</th>
<th>Session I:  1:30 – 2:30 p.m.  Focus Group Meetings</th>
<th>Session II:  2:45 – 3:45 p.m.  Focus Group Meetings</th>
</tr>
</thead>
</table>
| **ACRC**   | Friction Stir Processing of Aluminum Cast Alloys for High Performance Applications (*N. Sun and D. Apelian*)  
*Chairman’s Room, Campus Center*  
Predicting the Response of Aluminum Alloys to Heat Treatment  
(*L. Wu and M. Makhlouf*)  
*Taylor Room, Campus Center*  
Nitriding – *Fundamentals, Modeling and Process Optimization*  
(K. Rong)  
*Mid-Century Room, Campus Center*  
Carbonitriding – *Fundamentals, Modeling and Process Optimization*  
(K. Rong)  
*Mid-Century Room, Campus Center*  
Aluminum Nano Composites for Elevated Temperature Applications  
(*C. Borgonovo and M. Makhlouf*)  
*Chairman’s Room, Campus Center*  
Atmosphere vs. Vacuum Carburizing Fatigue Test Comparison  
(*L. He, K. Rong*)  
*Mid-Century Room, Campus Center*  
NDT Testing for Hardness and Carburization Case Depth  
(*L. Zhang, L. He, K. Rong*)  
*Mid-Century Room, Campus Center* |
WPI Campus Center - Meeting Rooms

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

Middle Level:
- Morgan Room

Bottom Level:
- Taylor Room
- Chairman’s Room