METAL PROCESSING INSTITUTE
ACRC+CHTE FALL MEETING AGENDA
December 10-11, 2013

Tuesday, December 10, 2013

12:00–1:45 p.m. ACRC Steering Committee Meeting
Chairman’s Room, Campus Center

12:00 – 1:45 p.m. CHTE Board Members Meeting
Taylor Room, Campus Center

1:30 p.m. Registration
Odeum C, Campus Center

2:00 p.m. Welcome – D. Apelian
Opening Remarks from ACRC Chair – K. Anderson
Opening Remarks from CHTE Chair – M. Pershing

2:45 p.m. Overview of the ACRC Research Portfolio – M. Makhlouf
Overview of the CHTE Research Portfolio – R. D. Sisson

3:15 p.m. Break

3:30 – 5:30 p.m. Project Presentations for ACRC and CHTE

ACRC Project Presentations – Odeum C

3:30 p.m. Clean Aluminum Processing
S. Hudson, D. Apelian

4:00 p.m. Aluminum Nano-Composites for Elevated Temperature Applications
I. Anza, M. Makhlouf

4:30 p.m. Alternate Eutectic Systems for Aluminum Casting Alloys
T. Koutsoukis, M. Makhlouf

5:00 p.m. Aluminum Alloys for High Temperature Applications
Y. Fan, M. Makhlouf

PLEASE NOTE:
Combined Meetings are in black
Items in blue refer to ACRC meetings
Items in green refer to CHTE meetings
CHTE Project Presentations – *Hagglund Room, Campus Center*

3:30 p.m. **NDT Testing for Hardness & Carburization Case Depth**  
*L. Zhang, R. D. Sisson*

3:50 p.m. **Life Improvements to Alloys and Fixtures**  
*M. Yang, A. Wang and R. D. Sisson*

4:10 p.m. **Induction Tempering**  
*X. Cai, M. Yang, R. D. Sisson*

4:30 p.m. **Gas Quench Steel Hardenability Standard**  
*Y. Lu, R. D. Sisson, K. Rong*

4:50 p.m. **Tempering Carburized and Through Hardening Steels (WPI MQP project)**  
X. Cai, S. Shrestha, N. Holman, K. Paklin, R. D. Sisson

5:10 p.m. **Cold Spray Nanomaterials by Design (ARL project)**  
*D. Belsito, B. McNally, L. Bassett, A. Birt, D. Apelian, R. D. Sisson*

6:00 p.m. **Reception and Dinner**  
*Worcester Art Museum*  
*55 Salisbury Street*  
*Worcester, MA 01609*

**Wednesday, December 11, 2013**

8:00 a.m. **Breakfast**  
*Odeum A*

8:30 a.m. **Industry Presentations**  
- GKN Sinter Metals – I. Donaldson  
- CPS Technologies Corporation – Richard Adams  
*Odeum A, WPI Campus Center*
### 9:30 – 11:00 a.m.  Focus Groups – Session A

| ACRC          | Aluminum Nano Composites for Elevated Temperature Applications  
|               | I. Anza and M. Makhlouf  
|               | Mid-Century Room  
|               | Clean Aluminum Processing  
|               | S. Hudson and D. Apelian  
|               | Odeum A  

| CHTE          | NDT Testing for Hardness and Carburization Case Depth  
|               | L. Zhang and R. D. Sisson  
|               | Chairman’s Room  
|               | Improvements to Life of Alloys and Fixtures  
|               | M. Yang and R. D. Sisson  
|               | Taylor Room  

### 11:00 – 12:30 p.m. Focus Groups – Session B

| ACRC          | Alternate Eutectic Systems for Aluminum Casting Alloys  
|               | T. Koutsoukis and M. Makhlouf  
|               | Mid-Century Room, Campus Center  

| CHTE          | Induction Tempering  
|               | X. Cai, M. Yang, and R. D. Sisson  
|               | Chairman’s Room  
|               | Gas Quench Steel Hardenability Standard  
|               | Y. Lu, R.D. Sisson and K. Rong  
|               | Taylor Room  

### 12:45 – 2:30 p.m.  Lunch with Presentation by Alan Taub, Professor of Materials Science & Engineering, University of Michigan: "Breakthroughs Needed in Lightweight Materials for Transportation" Odeum C, WPI Campus Center

#### 2:30 – 3:30 p.m.  Debrief

#### 3:30 p.m.  Adjourn