Registration Form

Register me for the CISP Industry Member Meeting, 18 - 19 October 2005, Atherton Hotel, 125 South Atherton Ave., State College, PA. Registrations will be accepted by e-mail, mail, fax or register on-line at: http://www.cisp.psu.edu/events/index.htm through Wednesday, 5 October 2005.

Name
Company
Address
City State/Province Country
Telephone Fax Number E Mail
18 - 19 October 2005
I will attend: □ 18 Oct 2005 □ 19 Oct 2005 □ Both Days
Fax or mail completed registration form by 5 October 2005 to:
Sharon L. Elder
Executive Director
Center for Innovative Sintered Products
147 Research West
University Park, PA 16802
Fax: (814) 863-8211 Phone: (814) 865-1914 (inquires)
E Mail: CISP@psu.edu

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Atherton Hotel - 125 S. Atherton Ave., Phone: 800-832-0132, email: atherton@statecollege.com
$75.00 flat rate (on-line reservation code: CISPI181005)
The Penn Stater Conference Center Hotel - Penn State Research Park, Phone: 800-233-7505 email: pshs@pshs.psu.edu
$93.00 flat rate (reservation code: CIS1018)
Additional information on the meeting, hotel accommodations and detailed maps visit our web site: www.cisp.psu.edu

Map & Directions

Need help? Call 814-865-2121

Hail and Farewell
Industry Member Meeting
18 -19 October 2005 • Atherton Hotel • State College, PA

- Powder, Roast & Toast (Rand German)
- Powder Production by Gas Atomization
- Laser-Based Deposition Technologies
- High Velocity Particle Consolidation

Penn State Center for Innovative Sintered Products
### Program Highlights

#### Special Guest Speakers

**Iver E. Anderson**  
Dr. Anderson is a Senior Metallurgist at the USDOE-Ames Laboratory and an Adjunct Professor of Materials Science and Engineering at the Iowa State University. He received his Ph.D. in metallurgical engineering from the University of Wisconsin-Madison. His research interests are rapid solidification, development of high pressure gas atomization for production of metal powders with controlled size and surface chemistry, advanced powder processing for fabrication of structural components, electronic, magnetic and hydrogen storage materials, development of a centrifugal atomization process for production of coarse spherical powders, alloy design and microstructure/property relationships of joining materials.

**Albert E. Segall**  
Dr. Segall received his Ph.D. in Engineering Science and Mechanics from the Pennsylvania State University in 1992. After completing his degree, Dr. Segall remained at Penn State and served as the Associate Director of the Center for Advanced Materials and a Senior Research Associate at the Applied Research Laboratory until 1999. In 1999, he joined the Washington State University Vancouver faculty as an Associate Professor of Mechanical and Manufacturing Engineering where he eventually became the Director of Engineering Programs. In the 2002, Dr. Segall returned to Penn State as an Associate Professor of Engineering Science and Mechanics and has served as the Co-Chair of the Intercollege Graduate Program in Materials since 2004.

#### The Quest for Control and Efficiency in Powder Production by Gas Atomization

- The difficulty of “tuning” a gas atomization process for a new composition
- Production of high performance metal and alloy powders
- Grand challenges for process research
- Potentials of close coupled atomization
- Progress toward improved coupling of the supersonic gas flow energy

#### Laser-Based Deposition Technologies

- Physics of the laser deposition
- Processes for laser-based deposition
- Areas of application for laser coating and near net shape fabrication

#### High-Velocity-Particle-Consolidation (HVPC) and the Development Ni/Boron-Nitride Self-Lubricating Coatings

- Tailored coatings using high-velocity particles
- Ni and Boron-Nitride lubricant on Ti
- Wear and fretting resistant

**Richard P. Martukanitz**  
Dr. Martukanitz is currently Head of the Laser Processing Division, as well as Assistant Director of the Applied Research Laboratory. He has spent the last 15 years involved in the development of laser processing technology. He is also the founder and Director of the Laser Processing Consortium, an organization that has included over 50 commercial companies over the past nine-years. He received his Ph.D. in Materials Science and Engineering from the Pennsylvania State University. Dr. Martukanitz is a Fellow of the Laser Institute of America and serves on their Board of Directors. He also serves as a member of the American Welding Society’s C7C Committee for Laser Processing and Peer Reviewer Program.

**Laser-Based Deposition Technologies**

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<thead>
<tr>
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<tbody>
<tr>
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<td>12:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>12:30</td>
<td>Continental breakfast</td>
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#### Special Dinner Event

**Come roast and toast the Center’s Director and bid him hail and farewell on his new adventure.**

**Powder Roast & Toast**

**Randy German**

**CISP Industry Member Meeting**

**18-19 October 2005**

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**16:50** Closing – plan for tomorrow
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- Physics of the laser deposition
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**CISP Industry Member Meeting**
18-19 October 2005

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<tr>
<td>1:30</td>
<td>Welcome and introductions – Sharon Elder</td>
</tr>
<tr>
<td>1:45</td>
<td>The Potential of Particulate Composites – Ivi Smid</td>
</tr>
<tr>
<td>2:05</td>
<td>Pressing to Full Density through Dynamic Compaction – Guneet Sethi</td>
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<td>Thermodynamics Rationalization for Atmosphere Selection in Sintering - Chantal Binet</td>
</tr>
<tr>
<td>3:00</td>
<td>Break</td>
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<tr>
<td>3:30</td>
<td>Binder Removal in Nitrogen/Hydrogen Atmospheric Mixtures – Lou Campbell</td>
</tr>
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<td>3:50</td>
<td>Laser-Based Deposition Technologies – Rich Martukanitz</td>
</tr>
<tr>
<td>4:30</td>
<td>CISP status – collaboration efforts – Judy Todd</td>
</tr>
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<td>4:45</td>
<td>Financial update - Judy King</td>
</tr>
<tr>
<td>5:00</td>
<td>Social/poster session</td>
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<tr>
<td>6:30</td>
<td>Dinner</td>
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<tr>
<td>7:30</td>
<td>Powder, Roast and Toast - A Tribute to Rand German</td>
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<td>8:15</td>
<td>Closing – plan for tomorrow</td>
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<td>3:00</td>
<td>Meeting adjourned</td>
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Dear Rand,
Best of Luck in your new position we will MSU CISP Staff

Hail and Farewell

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