I/UCRC Evaluators’ Meeting
June 6, 2013

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Larry Hornak, Shashank Priya
Program Directors (IIP/ENG)
Rita Rodriguez
Program Director (CNS/CISE)
Alex Schwarzkopf, Expert

Welcome to the Industry/University
Cooperative Research Centers
Outline

• Staff update
• What’s New: IUCRC opportunities
• Center status
• Status of Proposals Received in March 2013
• Others:
  – Global positioning of I/UCRC
  – I/UCRC Data Migration (Denis Gray)
  – SBIR/I/UCRC supplement study (Denis)
  – IUCRC Observations (LH)
  – I/UCRC vs I-Corps
  – Updating I/UCRC website
Staff Update

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NOTE: For MIPRs/IA...Alexandra Hale is the contact person
What is New: Other Opportunities for I/UCRCs

• Veterans Research Supplement (VRS)

• Accelerating Innovation Research (Research Alliance Competition)

• Opportunity for Support of Innovative Managing Director Models in I/UCRC (pilot activity)

• Stay tuned for more!
EXISTING CENTERS & SITES
&
POTENTIAL CENTERS & SITES
I/UCRC Fast Facts – FY12 Snapshot

Program Funding
• $16.4M in Program Funding (ENG, CISE)
• $130M in Total Center Funding,
• 8:1 Leveraging of NSF funds.

Centers Nationally:
• 61 Centers with 178 Sites
• Over 1080 memberships

• 52% Large Business, 26% SB, 15% Federal Members

Students
• 2100 students engaged
• 1000 graduated in 2011, over 30% hired by members
• 350 PhDs, 425 MS & 250 UGs graduated in 2011, trained in Center research

Sustainability
• Over 40 Graduated I/UCRCs remain in operation true to model
Strategic partnership that strengthens IAB, education, and research.
<table>
<thead>
<tr>
<th>ENG Multi-University Centers</th>
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<tbody>
<tr>
<td>1. Advanced Forestry</td>
<td>21. Plug-In Hybrid Electric Vehicles</td>
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<tr>
<td>2. Advanced Packaging and Processing (III)</td>
<td>22. Power Systems Engineering Research Center (III)</td>
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<tr>
<td>4. Composites Infrastructure (4; Rutgers &amp; Miami)</td>
<td>24. Sensors and Actuators (III)</td>
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<td>5. Ceramics Composites Optical Materials Center (2; Clemson Lead?)</td>
<td>25. Smart Vehicles Concepts (TAMU?)</td>
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<td>8. Electromagnetic Compatibility (down to 3)</td>
<td>28. Connection One</td>
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<td>10. Friction Stir Processing (down to 4)</td>
<td>30. Water and Equipment Policy</td>
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<tr>
<td>11. Fuel Cells (status unknown)</td>
<td>31. Wood Based Composites</td>
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<tr>
<td>16. Logistics and Distribution</td>
<td>36. Child Injury Studies</td>
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<tr>
<td>17. Membrane Science, Engineering &amp; Technology</td>
<td>37. Center for Tire Research</td>
</tr>
<tr>
<td>18. Next Generation Photovoltaics</td>
<td>38. Center for Optical Wireless Applications</td>
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<tr>
<td>20. Pharmaceutical Development</td>
<td>ENG Single-University Centers</td>
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<tr>
<td>40. Agricultural, Biomedical, and Pharmaceutical Nanotechnology</td>
<td>41. Advanced Vehicle Electronics (III)</td>
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<tr>
<td>42. Electronic Micro-Cooling (III)</td>
<td>43. Non-Destructive Evaluation (III)</td>
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41 ACTIVE ENG CENTERS; 117 SITES
Industry/University Cooperative Research Centers

**CISE Multi-University Centers**

1. Advanced Knowledge Enablement
2. **Autonomic Computing**
3. Dynamic Data Analytics
4. e-Design *(UCF & CMU OUT)*
5. Embedded Systems
6. Experimental Computer Systems
7. Hybrid Multicore Productivity *(GT OUT)*
8. Identification Technology
9. Intelligent Maintenance
10. intelligent Storage *(CRIS)*
11. Research in Storage Systems *(CRSS)*
12. Net-Centrics Systems
13. Reconfigurable Computers
14. Search & Rescue Robots
15. Security and Software Engineering Research Center *(Iowa State?)*
16. Surveillance Theory
17. **Wireless Internet (OUT); being replaced by another CENTER**
18. Visual Decision Informatics
19. Unmanned Aircraft Systems
20. Configuration Analytics and Automation

**19 ACTIVE CISE CENTERS; 52 SITES**
New Sites Seeking to Join Existing IUCRCs (FY 2013)

- Safety, Security, Rescue Research Center: 1
- Integration of Composites into Infrastructure: 1
- Excellence in Logistics and Distribution: 2
- Laser and Plasma in Advanced Manufacturing: 1
- Health Organization and Transformation: 1
- Pharmaceutical Development: 1
- Tire Research: 1
- Intelligent Maintenance Systems: 1
- Security & Software Engineering Research Center: 1
- Advanced Forestry Systems: 1
- E-Design: 1
New & Renewal Proposals Under Consideration (FY 2013)

ENGINEERING:
• SIX (6) Full Center Proposals including 1 Phase III; no new evaluator (EV) needs
• FOUR (4) Planning Grant Proposals; need EV
• TWO (2) Center Proposals for Renewal

CISE:
• TWO (2) Full Center Proposals including ONE (1) Renewal; no new evaluator (EV) needs
• ONE (1) Planning Grant Proposal (need EV)
Global Positioning of I/UCRC (2013)

- Presentation to OSTP
- Discussion at the Lab-to-Summit Meeting
- Meeting with Canadian Minister Gary Goodyear
- Teleconference with John McDougall of NRC
- Presentation to UIDP (Cal Tech…)
- Presentation to APLU Summit (June 11)
- Discussion at the US-Japan S&T (State Department)
- Meetings with Foreign Delegates at NSF…
I-Corps Effect on I/UCRCs

• Jay Lee (IMS): has a start-up

• Nikos (SSR-RC): “Pivoted,” and pivoted to the Agriculture Market Segment; MCGA is now a member
Important Items

- Fundamental Research proposal – ongoing; ENG and CISE
- SBIR membership in IUCRCs – ongoing; awaiting Denis’ findings
- CORBI – ongoing
- Center Fact Sheet (operational)
- MIPR – complete information on the IUCRC homepage
- Annual report
  - Research.gov
  - Evaluator’s report with Denis’ cover page
  - Membership certification for the reporting period
  - Discrepancy between Evaluator report and membership certification
- REU, RET, VRS - ongoing
- LIFE forms
  - Role of NCSU (password issues?)
Planning Grant Boot Camp (In Effect)

- Boot camp for Planning Grantees
- Planning grant agenda to be reviewed and approved by NSF
- Must complete planning grant workshop prior to submission of a full proposal
- Presentation at Planning Grant Workshops
- Planning grant workshop deliverables:
  - List of ALL POTENTIAL RELEVANT RESEARCH PROJECTS sent to ALL POTENTIAL SPONSORS
  - Must include EXECUTIVE SUMMARIES & BACK-UP MATERIAL (if needed)
  - Must include VISION and MISSION Statement of the proposed Center
  - Sponsors prioritize and send back list to PIs (5+ top research projects)**
  - PIs sort through and identify the top 5+ research projects
  - PIs report back RESULTS to NSF & ALL POTENTIAL SPONSORS
  - PIs list these TOP 5+ projects in the FULL PROPOSAL
  - If awarded, these VETTED research projects now effectively start the first IAB meeting
What Evaluators need to Know!

• In the absence of NSF PDs, summarize **in one page**
  ❑ Center membership status per site (note changes)
  ❑ Attendance (particularly members per site)
  ❑ Cooperative Operation (Mode, Dynamic)
  ❑ **CONCERNS**, if any (is this the time NSF PD should get involved?)
  ❑ **SUCCESS stories** (particularly impact)
  ❑ Others:
    ➢ Evidence that research projects are guided by IAB, and not a collection of targeted research projects
    ➢ Project across multiple sites (ideal)
    ➢ Greater # of projects presented vs projects funded
    ➢ Technology roadmap (strategic vision)