Meeting the Challenges of Multi-University Centers

Panel:

Linda C. Caudill, WBCC Managing Director
Virginia Polytechnic Institute

Krishna Kavi, NCSS Director
University of North Texas – Dallas

Dennis Ray, PSERC Deputy Director
University of Wisconsin – Madison

Moderator:
Craig S. Scott, University of Washington
Linda Caudill, Managing Director
Wood-Based Composite Center (WBC)
Founded as IUCRC in 2010

Two-Site: Phase I
Two Partner Sites
Mission

Advance the science and technology of wood-based composite materials
About our Center

- Membership: 10 members representing:
  - Adhesive and additive suppliers to wbc industry
  - Manufacturers of wbc products
  - Government agencies (U.S., Australia)
  - European-based research laboratory

- Prior to the housing market collapse 18 members, evenly distributed between manufacturers and suppliers. Today, the majority are chemical producers.
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• Prior to the housing market collapse 18 members, evenly distributed between manufacturers and suppliers. Today, the majority are chemical producers.
• Established: 1999
• I/UCRC Panning Grant Awarded: 2009
• I/UCRC Center Awarded: 2010
• Two NSF Sites and Two Partner Universities
• No new Sites added
WBC Organizational Structure

Center Leadership Team
- Director (VT)
- Co-Director (OSU)
- Managing Director

NSF
- Program Director
- External Evaluator

Members
- Industrial Advisory Board
- Executive Committee
- Technical Committee

Partner Universities
- VT
- OSU
- UBC

NSF Sites
- Project 1
- Project 2
- Project 3
- Project n
Novel Characteristics:

- Two Partner Universities (not Sites); subcontracted for research
- Each Site subcontracts to only one Partner University
- Collaborative recruiting efforts include Directors, members and partner universities
- In all WBC activities, a member’s university affiliation is not considered

Innovative Management:

- Managing Director serves both sites, presents united front
- All documentation is standardized across four universities
- Lead Site invoices the other for expenses, as necessary
Novel Characteristics/Innovative Management

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Thank you.

Questions for Linda?
Krishna Kavi, Director
Net-Centric Software and Systems (NCSS)
Phase I, Four-Site Center

NCSS MISSION: Advance research & development of net-centric and Cloud based computing environments
About NCSS: Approximately 20 members

- Defense and aerospace industries
- Electronics & computer systems manufacturers
- Software developers
- Healthcare application developers
- Cloud infrastructure & software service developers
- Governmental agencies

Many multiple memberships
2005-06: DFW universities form research consortium

2006: Working group: UNT, UTD, UTA, SMU, Raytheon, Lockheed Martin Aero, TI

2007: 1st IUCRC attempt

2007: 2nd attempt

2009: NSF Net-Centric IUCRC approved: UNT lead, UTD as site and SMU as affiliated site

2010: ASU becomes 3rd site

2012: MST becomes 4th site

2012: Purdue planning grant proposal
NCSS Organizational Structure

Center Leadership Team
- Director (UNT)
- Admin Asst

NSF Program Director

NSF External Evaluator

University Policy Committee(s)

Members
- Industrial Advisory Board

Partner Universities
- UNT
- UTD
- ASU
- MST

Projects
- Project 1
- Project 2
- Project 3
- Project n

Project 1
Project 2
Project 3
Project n
Novel Characteristics:
- Original university administrators waived indirect cost on memberships, provided the funds are used to support graduate students
  - One membership = one graduate student for approximately 1 year
- Moving towards more collaborative recruiting efforts include Directors, members and partner universities

Innovative Management:
- Bi-monthly meetings for progress reporting & planning
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Innovative Management:
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Ideas For Collaboration

• Encourage members vote on more than one project, perhaps with strong preference for one
• Each site contributes funds to a pool that will support a competitive research project from any university site(s)
• Multiple sites propose larger joint project, supported by members from the different sites
Ideas For Collaboration

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Thank you.

Questions for Krishna?
Empowering minds to engineer the future electric energy system

Dennis Ray, Director
Power Systems Engineering Research Center (PSERC)
(www.pserc.org)

A National Science Foundation Industry-University Cooperative Research Center
PSERC

Our core purpose:
Empowering minds to engineer the future electric energy system

What is important to us:
Pursuing, discovering and transferring knowledge
Producing highly qualified and trained engineers
Collaboration
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What we’re working toward:
An efficient, secure, resilient, adaptable, and economic electric power infrastructure serving society

A new generation of educated technical professionals in electric power

Knowledgeable decision-makers on critical energy policy issues

Sustained, quality university programs in electric power engineering
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PSERC Organization

Mirrasoul Mousavi, ABB, Chair
Jim Gronquist, Southern Co, Vice-Chair

Director
Vijay Vittal

Executive Comm.

Deputy Dir.
Dennis Ray

Markets Research Stem
Shmuel Oren, Berkly
Jim Price, CAISO

T&D Technologies Research Stem
Ward Jewell, Wichita
George Rodriquez, SCE

Systems Research Stem
Peter Sauer, U of Ill.
Doug McLaughlin, Southern Co.
13 Collaborating Universities

- Arizona State University - Gerald Heydt
- University of California at Berkeley - Shmuel Oren
- Carnegie Mellon University - Marija Ilic
- Colorado School of Mines - P.K. Sen
- Cornell University - Lang Tong
- Georgia Institute of Technology - Sakis Meliopoulos
- Howard University - James Momoh
- University of Illinois at Urbana - Peter Sauer
- Iowa State University - Venkataramana Ajjarapu
- Texas A&M University - Mladen Kezunovic
- Washington State University - Anjan Bose
- University of Wisconsin-Madison - Chris DeMarco
- Wichita State University - Ward Jewell
Industry Members

ABB
American Electric Power
American Transmission Co.
ALSTOM Grid
Arizona Public Service
BC Hydro
Bonneville Power Admin.
California ISO
CenterPoint Energy
Duke Energy
EPRI
Exelon
GE Energy
FirstEnergy
Institut de recherche d’Hydro-Québec (IREQ)
ISO New England
ITC Holdings
Lawrence Livermore National Lab
Midwest ISO
Mitsubishi Elec. Research Lab
NASA
National Renewable Energy Lab.
New York ISO
New York Power Authority
Pacific Gas and Electric
PJM Interconnection
PowerWorld Corp.
RTE (France)
Salt River Project
San Diego Gas & Electric
Southern California Edison
Southern Company
Southwest Power Pool
TVA
Tri-State G&T
U.S. DOE
Western Area Power Admin.
PSERC Evolution

- 1986: Idea for PSERC
- 1996: NSF IUCRC planning meeting
- 1996: PSERC established w/ 4 universities
- 1998: Added one universities (total 5)
- 1999-2000: Added six universities (total 11)
- 2000: Added Executive Director
- 2001: Added two universities (total 13)
- 2006: Transition to new lead school
- 2012: Began Phase III
Thank you.

Questions for Dennis?
HOW TO:

Proactively foster MU center growth. Collaboratively recruit new MU sponsors. Accentuate the MU/IUCRC leveraging potential for sponsors.

Market your MU center to universities. Strategies for adding sponsors & university sites.
HOW TO:
Maintain positive collaborative relations between MU sites.
Center Maintenance: Avoiding loss of and/or dealing with terminated(ing) sponsors.
HOW TO:
Orient new MU members.
Present one mind-set to industry when a new “center” sponsor joins through one MU site.
HOW TO:
Promote “buy-in” to the EESSENTIAL role of collaborative project selection.

Develop and manage truly collaborative projects.
HOW TO:
Manage/coordinate bi-annual meetings.
Keep the fire burning.