Industrial Advisory Board (IAB) Meeting
February 1, 2011
Sheraton Fort Lauderdale Beach Hotel
Self Introductions by Attendees

WVU – Pavement Panels

RU – Self Cleaning Composites

UM – GFRP Wrapped Columns

NCSU – Shallow Floor Framing System
Organizational Overview

- **Lead: West Virginia University**
  - Dr. Hota GangaRao: Center Director
  - Dr. Udaya Halabe: Site Director

- **Rutgers University**
  - Dr. P. Balaguru: Site Director

- **North Carolina State University**
  - Dr. Sami Rizkalla: Site Director

- **University of Miami**
  - Dr. Antonio Nanni: Site Director
Organizational Overview

- National Science Foundation
  - Dr. Rathindra (Babu) DasGupta: I/UCRC Program Director
  - Dr. Alex Schwarzkopf: Consultant

- CICI Evaluator
  - Dr. Denis Gray: North Carolina State University
To accelerate the adoption of polymer composites and innovated construction materials into infrastructure and transportation applications through collaborative research.
Status of the Center

- Center is halfway through the second year of operation
- WVU and RU’s application for “NSF Fundamental Research Project” on the Aging of Composites has been deferred for funding by NSF
- CICI has a booth at the ACMA Composites 2011 Convention and will be giving a presentation on Friday
- NSF is going to allow universities to count state and local government agencies if they meet the following conditions:
  - The agency cannot legally sign the membership agreement
  - Agency sends a letter agreeing to follow the agreement rules and by-laws
  - University accepts the agency as a member
  - Federal agencies can join through inter-agency transfer
## Center Impacts

<table>
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<tr>
<th>Site</th>
<th>Under-graduates</th>
<th>Graduate Students</th>
<th>Degrees</th>
<th>Papers</th>
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University of North Dakota and North Dakota State University are actively looking into joining CICI due to their work in bio-polymers

Dr. Wayne Seames of UND will give a brief presentation on their interests and research activities
Industry Partners
- Lockheed Martin – Full
- Bedford Reinforced Plastics – Associate
- Fiber-Tech Industries – Associate
- Foster Supply – Associate
- FriiPwr USA Ltd – Pending Associate
- SPX – Pending Associate
- Booth Energy – Pending Associate

Projects:
- Resin Design for Fire Safety Requirements
- Strength and Fatigue Life Prediction
- Aging-Durability Testing and Analysis of Composite
- Nondestructive Evaluation of FRP Composites Using Infrared Thermography (IRT)
- Design, Manufacture and Implementation of Structural Panels
Status of the Center – RU

- Industry Partners
  - Baltek
  - Rutgers University Facilities Department
  - Slag Cement Association

- Projects:
  - Evaluation of Retrofitted RC Beams at High Temperatures
  - Composite Guard Rail System
  - Protective Multi-Purpose Coatings
Industry Partners
◦ AltusGroup, Inc., – Full
◦ Freyssinet, Inc., – Full
◦ Fyfe Company, LLC, – Full
◦ Grancrete, Inc. – Full
◦ Martin Marietta Composites – Full
◦ Nippon Steel Materials Co., Ltd. – Full

Projects:
◦ Rapid FRP Repair of Damaged Reinforced Concrete Columns
◦ 3-D FRP Sandwich Panels with Corrugated Sheets for Bridge Decks
◦ Innovative Bonding and Fibers for Strengthening Concrete Structures
◦ Innovative FRP Shear Transfer Mechanism for Precast Prestressed Concrete Sandwich Panels
◦ FRP Anchorage Systems for Strengthening Infill Masonry Structures
Status of the Center – UM

Industry Partners
- Strongwell - Full
- Structural Preservation Systems - Full
- Composite Rebar Technologies, Inc. - Full

Projects:
- Durability Study of RC Seawalls Constructed with GFRP I-Bars and SIP Panels
- Guide for Design and Use of Flexible Carbon Grid Reinforcement for the Repair
- Large-Diameter Composite Hollow Rebars
- External Confinement of RC Columns by means of GFRP laminates
- ICE Methodology for FRP Characterization
- Safety Analysis of Composite Materials for Existing and New Construction
Review of Agenda

- NSF Presentation by Alex Schwarzkopf
- Project Presentations
  - Presentations will be short, but more information is given in the summary sheets
  - Please complete a LIFE form after each presentation
- Feedback Questionnaire Evaluation – Denis Gray
- Industry Workshop
  - Review LIFE forms
  - Discuss Member Company Needs and Future Projects
  - Closed Door IAB Meeting