



Center for Integration
of Composites into
Infrastructure

Industrial Advisory Board Meeting
November 12–13, 2009
Erickson Alumni Center
Morgantown, WV



NC STATE UNIVERSITY

UNIVERSITY
OF MIAMI





Center for Integration of Composites into Infrastructure

OBJECTIVE

Develop the research agenda for the first year of operation for the Center for the Integration of Composites into Infrastructure (CICI). November 12 will consist of project presentations and the discussion of projects along with voting on the research agenda will occur on November 13.

CENTER PARTICIPANTS

West Virginia University (lead)

Dr. Hota GangaRao, Center Director
Dr. Udaya Halabe, Site Director
Dr. Rakesh Gupta
Dr. Ruifeng Liang
Dr. PV Vijay

Rutgers University

Dr. P. Balaguru, Site Director
Dr. Husam Najm
Dr. Stephen Tse

University of Miami

Dr. Antonio Nanni, Site Director
Dr. Fabio Matta

North Carolina State University

Dr. Sami Rizkalla, Site Director
Dr. Emmett Sumner
Dr. Rudi Seracino

National Science Foundation

Dr. Denis Gray, Center Evaluator
Dr. Rathindra DasGupta, Lead
I/UCRC Program Director
Dr. Glenn Larsen, Program Director
Dr. Alex Schwarzkopf, Consultant

GENERAL MEETING INFORMATION

The meeting will be held on November 12 and 13, 2009 at the Erickson Alumni Center on the campus of West Virginia University in Morgantown, WV. Directions to the center can be found at <http://alumni.wvu.edu/eac/> or by calling 304-293-4731. Discounted hotel rates are available at the Euro-Suites, 501 Chestnut Ridge Road (304-598-1000) \$75.00 a night plus taxes, the Hampton Inn, 1053 Van Voorhis Road (304-599-1200) \$94.00 a night plus taxes and at Residence Inn, 1046 Willowdale Road (304-599-0237) \$98.00 a night plus taxes. Please identify yourself as being with the "WVU-CICI" group to receive the discounted room rate. Parking is available at the Erickson Alumni Center for \$0.75 per hour. Dress is business casual during the day and business for the dinner. All attendees are encouraged to bring laptop computers for the completion of the LIFE forms. For questions, please contact Mark Skidmore at mark.skidmore@mail.wvu.edu or 304-293-9983. Additional information can be found at: www.cemr.wvu.edu/cfc/cici/

REGISTRATION

There is no charge to participants to attend the IAB meeting; however preregistration is required by 10/29/09. To register for the conference, please complete the registration form found at www.cemr.wvu.edu/cfc/cici/ and send it to the Constructed Facilities Center as per the instructions provided. Prospective members are encouraged to attend; however they will not be allowed to participate in IAB votes and will be required to sign a nondisclosure agreement unless a signed letter of commitment is given before the meeting begins. Meals as outlined in the agenda will be provided at no cost to participants.



Center for Integration of Composites into Infrastructure

NOVEMBER 12, 2009

7:00 – 8:00 am	Registration, breakfast and Site Directors Meeting
8:00 – 8:15 am	Welcoming remarks – Curt Peterson, WVU VP for Research & Economic Development (Invited Speaker)
8:15 – 8:25 am	Proposed center vision – Dr. Hota GangaRao, Center Director
8:25 – 8:55 am	Capabilities of the proposed center – Dr. Udaya Halabe, Dr. P Balaguru, Dr. Rudi Seracino & Dr. Fabio Matta
8:55 – 9:50 am	NSF I/UCRC presentation – NSF
9:50 – 10:10 am	Project Presentations I
9:50 – 10:00	Resin Design for Fire Safety Requirements – Rakesh Gupta, WVU
10:00 – 10:10	Strength and Fatigue-Life Prediction of Composites – Hota GangaRao, WVU
10:10 – 10:30 am	Break
10:30 – 11:50 am	Project Presentations II
10:30 – 10:40	Aging-Durability Testing and Analysis – Ray Liang, WVU
10:40 – 10:50	Nondestructive Evaluation of FRP Composites Using InfraRed Thermography – Udaya Halabe, WVU
10:50 – 11:00	Design, Manufacture and Implementation of Flat Panels and Structural Shapes – PV Vijay, WVU
11:00 – 11:10	Innovative Composite Bridge Decks using Wood – Huam Najm, RU
11:10 – 11:20	Nano Composites for Enhancing Structural Integrity of Reinforced Concrete Structural Elements – P Balaguru, RU
11:20 – 11:30	Nano Inorganic Matrices for Fabricating Nano-Composites – Stephen Tse, RU
11:30 – 11:40	Hybrid Timber-FRP Systems for Buildings – P. Balaguru and Husan Najm, RU
11:40 – 11:50	Self-Cleaning, De-Polluting Micro Composites for Protection of Structures – P. Balaguru, RU
11:50 – 1:10 pm	Lunch
1:10 – 3:00 pm	Project Presentations III
1:10 – 1:20	Fiber Reinforced Cementitious Matrix Composites for Infrastructure Rehabilitation – Fabio Matta, UM
1:20 – 1:30	Eco-Friendly Off-White Reinforced Concrete – Fabio Matta, UM
1:30 – 1:40	Assessment and Validation of Prognostic Structural Health Monitoring System Prior and After Bridge Rehabilitation – Fabio Matta, UM
1:40 – 1:50	Strengthening of One-Way Reinforced Concrete Slabs with Mechanically Fastened FRP Laminates – Fabio Matta, UM
1:50 – 2:00	Experimental Evaluation of Full-Scale GFRP-Confined Reinforced Concrete Columns – Fabio Matta, UM



Center for Integration of Composites into Infrastructure

NOVEMBER 12, 2009 (CONTINUED)

	2:00 – 2:10	3-D Composite Sandwich Panels – Sami Rizkalla, NCSU
	2:10 – 2:20	Lightweight Concrete using EPS Spheres – Sami Rizkalla, NCSU
	2:20 – 2:30	Composite Cementitious Material for Strengthening Concrete Structures – Sami Rizkalla, NCSU
	2:30 – 2:40	Innovative Cold Formed Steel Studs – Emmett Sumner, NCSU
	2:40 – 2:50	Composite, Low-Profile Flooring System – Emmett Sumner, NCSU
	2:50 – 3:00	Kenaf Fiber-Reinforced Concrete – Rudi Seracino, NCSU
3:00 – 3:20 pm	Break	
3:20 – 4:45 pm	Industry Workshop – Discuss center projects and identify company needs that were not addressed in research project presentations – Industry moderated	
4:45 – 5:00 pm	Review of evening and day 2 activities – Dr. Hota GangaRao	
6:00 – 7:00 pm	Reception with remarks by Dr. James P. Clements, WVU President	
7:00 – 8:30 pm	Dinner	

NOVEMBER 13, 2009

7:00 – 8:00 am	Registration and breakfast
8:00 – 9:30 am	Feedback from the Industry Workshop – NSF moderated
9:30 – 10:30 am	Review and Discuss LIFE forms – NSF or center evaluator moderated
10:30 – 10:50 am	Break
10:50 – 11:15 am	Review and Discuss LIFE forms (continued)
11:15 – 11:45 am	Industry session with NSF (closed door)
11:45 – 12:00 pm	Summary and closing remarks – Center Director and Site Directors

WVU Laboratory tours available in the afternoon to any interested parties.

UNIVERSITY POLICY COMMITTEE

Dr. Curt Peterson, VP for Research and Economic Development, WVU Research Corporation (chair)
Dr. Yogesh Jaluria, Dean of the School of Engineering, Rutgers University
Dr. James M. Tien, Dean of the School of Engineering, University of Miami
Dr. Louis A. Martin-Vega, Dean of the School of Engineering, North Carolina State University
Dr. Hota GangaRao, Center Director
Dr. Udaya Halabe, West Virginia University Site Director
Dr. P. Balaguru, Rutgers University Site Director
Dr. Antonio Nanni, University of Miami Site Director
Dr. Sami Rizkalla, North Carolina State University Site Director