Southeast Florida
Regional Partnership

Indian River - St. Lucie - Martin
Palm Beach - Broward - Miami-Dade - Monroe

PARTNERSHIP MEMBER GENERAL INFORMATION

Partnership Member (Name of Organization)	Florida Atlantic University (FAU)
Membership Status (Please indicate whether the organization is a General Partner or Consortium Member)	Consortium Member (Pending Consortium Member agreement signed by FAU)
Address	777 Glades Road Boca Raton, FL 33431
Main Contact Name	Leonard Berry, Ph.D. Or Elizabeth Wojtisek, MBA
Telephone	(561) 799-8544
Email/Website	berry@fau.edu (Leonard Berry) ewojtise@fau.edu (Elizabeth Wojtisek)
Name of Chief Executive Officer or Director	Mary Jane Saunders, Ph.D., President
Number of Years in Business	50+
Task/s (as defined in the Comprehensive Work Plan) Please list in bulleted form those task areas in which your organization is interested in performing paid work. Greater detail can be provided in the accompanying document.	• Task 1 (Build Collaborative Partnerships) in the form of a supportive Virtual Meeting System; and, • Tasks 2 (Regional Resource Library and Scorecard), 3 (Conduct Public Engagement), and 4 (Enhance Regional Leadership and Technical Capacity). After Consortium Partner Agreement is signed: FAU will provide in-kind support in the form of participation in meetings on project issues and committees; assistance with research and evaluation activities. FAU will also help coordinate climate change related activities and partnerships at local, state, and federal levels. FAU participants (*The Florida Center for Environmental Studies, The Climate Change Initiative, Departments of Regional Planning, Geosciences, School of Architecture, Civil Engineering, Computer Science and Engineering, and others, coordinated via the National Science Foundation's Industry-University Cooperative Research Center for Advanced Knowledge Enablement at Florida International University and Florida Atlantic Universities [NSF's I/UCRC-CAKE at FIU/FAU]);*

Southeast Florida
Regional Partnership

Indian River - St. Lucie - Martin
Palm Beach - Broward - Miami-Dade - Monroe

PARTNERSHIP MEMBER GENERAL INFORMATION

Partnership Member (Name of Organization)	Florida International University (FIU)
Membership Status (Please indicate whether the organization is a General Partner or Consortium Member)	Consortium Member (Pending Consortium Member agreement signature by FIU)
Address	Modesto Maidique Campus, 11200 SW 8 St., Miami Florida 33199
Main Contact Name	Atorod Azizinamini, Ph.D., P.E., Naphtali Rishe, Ph.D.
Telephone	305-348-3821, 305-348-2025
Email/Website	aazizina@fiu.edu, rishen@cs.fiu.edu / http://cake.fiu.edu
Name of Chief Executive Officer or Director	Mark B. Rosenberg, Ph.D., President
Number of Years in Business	39 years
Task/s (as defined in the Comprehensive Work Plan) Please list in bulleted form those task areas in which your organization is interested in performing paid work. Greater detail can be provided in the accompanying document.	• Task 1 (Build Collaborative Partnerships) in the form of a supportive Virtual Meeting system • Task 2 (Regional Resource Library and Scorecard) • Task 3 (Conduct Public Engagement) • Task 4 (Enhance Regional Leadership and Technical Capacity)

Florida Atlantic University and Florida International University
July 14, 2011

Regional Vision and Blueprint for Economic Prosperity

Partnership Member General Information

Partnership Member (Name of Organization)	FIU-FAU I/UCRC CAKE (NSF Industry/University Cooperative Research Center – Center for Advanced Knowledge Enablement)
Membership Status (General Partner or Consortium Member)	Consortium Members (FIU and FAU Pending Consortium Member agreement signature)
Address	FIU, Modesto Maidique Campus, 11200 SW 8 St., ECS 243 Miami Florida 33199 and FAU, 777 Glades Road, Boca Raton, FL 33431
Main Contact Name	Center Directors: Naphtali Rishe, Ph.D. / Borko Furht, Ph.D. PIs: Leonard Berry, Atorod Azizinamini
Telephone	305-348-2025 / 561-297-3180
Part of Consultant Team responding to the SOQ	Yes
Email/Website	rishen@cs.fiu.edu / borko@cse.fau.edu http://cake.fiu.edu
Name of Director/Officers	Naphtali Rishe, Ph.D. / Borko Furht, Ph.D.
Number of Years in Business	5 years

Overview and Form of Organization

FAU Principal Investigator: Leonard Berry, berry@fau.edu
FIU Principal Investigator: Atorod Azizinamini, atorod.azizinamini@fiu.edu
Co-Principal Investigator for IT and FAU CAKE Site Director: Borko Furht, borko@fau.edu
Co-Principal Investigator for IT and FIU CAKE Site Director: Naphtali Rishe, rishe@fiu.edu

The National Science Foundation's (NSF) FIU-FAU Cooperative Research Center for Advanced Knowledge Enablement (CAKE) was established to develop long-term partnerships among industry, academe and government. The Center is supported primarily by industry center members, with NSF taking a supporting role in its development, evolution, and core funding. The Center's mission is to conduct industry-relevant studies in the representation, management, storage, analysis, search and social aspects of large and complex data sets, with particular applications in geospatial location-based data, disaster mitigation, and healthcare. Center affiliation is open to industrial members and government agencies. Affiliation benefits include early access to the Center's research innovations, twice-yearly meetings on a university campus, and opportunities to interact with faculty, students, and industry peers.

Statement of Qualifications and Project Understanding

FIU's College of Engineering and Computing (CEC) computing and research infrastructure can provide substantial support for the data, computing, and research needs of the entire planning process through the coordinated efforts of the I/UCRC-CAKE, the High Performance Database Research Center (HPDRC), and GIS-RS. The resources available through these entities include high-end hardware, software, data and tools, particularly in the areas of complex GIS and related applications. The present infrastructure of HPDRC includes Internet-2, Ampath, hundreds of servers and workstations, a $400K research computing cluster, and a high-performance database appliance for geospatial applications.

Particularly important to the data and analysis needs of the planning project is FIU HPDRC's TerraFly, which is a technology and tools for visualization and querying of geospatial data. The visualization component of the system provides users with the experience of virtual "flight" over maps comprised of aerial and satellite imagery overlaid with geo-referenced data. The data drilling and querying component of the system allows the users to easily explore geospatial data, to create geospatial queries, and get instant answers supported by high-performance multidimensional search mechanisms. TerraFly's server farm ingests, geo-locates, cleanses, mosaics, and cross-references 40TB of basemap data and user-specific data streams. TerraFly's Application Programming Interface allows rapid deployment of interactive Web applications and has been used to produce systems for disaster mitigation, ecology, real estate, tourism, and municipalities. TerraFly's Web-based client interface is accessible from anywhere via any standard Web browser, with no client software to install.

TerraFly tools include user-friendly geospatial querying, data drill-down, interfaces with real-time data suppliers, demographic analysis, annotation, route dissemination via autopilots, customizable applications, production of aerial atlases, and an application programming interface (API) for production of Web-based map applications. For more information see http://TerraFly.FIU.edu.

GIS-RS supports research and teaching from many academic units, including Engineering, Computer Science, Biology, Environmental Studies, Earth Science, Public Health, International Studies, and other FIU entities in the areas of geo-spatial data, visualization, analysis, and modeling. The major research focus of the center is in Web Portal GIS technology, geospatial data dissemination and visualization, Geo-spatial metadata management and creation, web interactive mapping, and other applications. . The Center has over 12 years of experiences in collaborative, and synergetic projects with various disciplinary areas including urban planning, Everglades restoration, water resources planning and policy advocacy, disaster reduction, hurricane related research, and biological research (see also http://gislab.fiu.edu/portal/Projects/tabid/90/Default.aspx)

GIS-RS is also provides large collection of geo-spatial datasets worldwide, with a special focus on South Florida, Latin American and Caribbean and other environmental sensitive regions of the world. CEC, with I/UCRC-CAKE and GIS-RS, will use their considerable capabilities and expertise to maximize the use of existing data and new data provided by SFRP Consortium Partners or others for geo-spatial data processing, data compilations, and data mining from an expanding FIU data warehouse and SFRP documents and data library depository (including the collection of documents and data collected by the SFRPC, TCRPC, FAU another SFRP Consortium Members for the SFRP during the last year or otherwise) that will support trend and scenario analysis and other 2060 RPSD deliverables.

Proposed Project

The advantage of our partnership is that it is institutionally based in Southeast Florida. The universities are positioned in locations where all counties involved can benefit from. Other partners such other state colleges, and private universities can add to the outreach capability which is very important for this project.

Research activities can benefit from data and information. The project can be the beginning step that can help bring other potential sources of money such as NSF grants or other. The data that needs to be identified is: property data, tax base, land use, land ownership, elevation data, property insurance data, employment, company location, land use, economic activity, employment centers, transportation, economic sectors, education, healthcare, population, demographics, water management, and natural systems.

Heterogeneous Virtual Meeting Platform
FAU and FIU, through the NSF I/UCRC CAKE (Industry/University Cooperative Research Center – Center for Advanced Knowledge Enablement) will lead in providing a heterogeneous virtual meeting platform for the SFRP and its constituency. The video conferencing system selected for virtual meetings is the multi-party conferencing system from Vidyo Inc. This conferencing system uses the state-of-art in video compression standard known as Scalable Video Coding (SVC) to support conferencing among end-points with varying bandwidth capabilities. The use of SVC allows high quality video conferencing even when some endpoints have low quality connection. The system also includes a conferencing gateway that converts video feeds from traditional conferencing system to Vidyo format using the SVC standard to ensure high quality. The Vidyo virtual meeting system will interoperate with existing Polycom and Tandberg video conferencing systems already deployed at locations across the region. These will also be tied into existing SFRP meeting locations.

Approach to Creation of 3D Multimedia Web Geo-Portal to Enhance Decision-making, Regional and Local Planning, and Policy Advocacy
To further aid in the development of a 2060 RPSD, the FIU/FAU I/UCRC CAKE proposes to develop two technologies that can be used for scenario exploration and plan development, as well as outreach efforts across multiple domains. The first involves the development of a Web Portal "Discovery Center" that will provide planners, decision makers, and the public with the ability to quickly and easily explore key information and various proposed scenarios via a robust yet easy-to-use web interface. The types of exploratory capabilities that system would be able to provide could include: 1) An intelligent knowledge base; 2) A discovery system; 3) A 3D Data visualization function; 4) Multimedia capabilities that illustrate impacts of different scenarios; 5) Forecasting capabilities that demonstrate probable social and environmental impacts; 6) Effect modeling and seek or develop new models to accurately analyze and predict potential planned responses; 7) A cost estimation center to explore projected impact and plan mitigation costs over time; 8) Impact across multiple domains of various proposed planning scenarios

The group also proposes to aid in the development of public education and outreach website for the 2060 RPSD.

Task #1 – Conduct Public Engagement

- Provide a heterogeneous virtual meeting platform to develop the regional partnership and enhance collaboration
- The virtual meeting systems will be deployed at key locations, accessible from main highway arteries in the 7 counties to expand participation.

Task #2 - Regional Resource Library and Score Card, Data collection/Management & Virtual Present
ABSTRACT and PLAN, FIU & FAU propose to create:

- Regional Resource Library and the Data Warehouse that permits development of a Virtual Present
- Define indicators that measure success (meet deeply held values and address major regional needs)
- Construct a Virtual Present so Partnership members can better understand every aspect of the region

Indicator & Measure Development

- Conduct survey of indicators used in other regions
- Review and summarize regional values based on values survey
- Define initial set of indicators that measure region's success at meeting the deeply held values

Regional Resource Library & Data Warehouse

- Create a Regional Resource Library that can provide needed information to Work Groups and others throughout the process
- Build a Data Warehouse of available and relevant data *and information*
- Identify Data Gaps that should be addressed in future assessments
- Create a Modeling Structure to Synthesize, Analyze, and Summarize Data
- Develop a Virtual Present using data *and information* from Data Warehouse

Expected Outcomes

- Descriptions of indicators and methods of establishing their relevance to regional values *and major regional issues*
- A web accessible Regional Resource Library developed, maintained, improved, and expanded
- "Virtual Present"
- Transfer of data and software to Partnership

Trending & Regional Scorecard

Consistent with the HUD Work Plan, FIU & FAU propose to:

- Ascertain trends based on the Virtual Present assuming no policy changes
- Develop an Initial Regional Scorecard on the Virtual Present and Trend Futures

Trending and Regional Score Card

- Create a Trend Futures that would envision the region in 10 year increments until 2060 by analyzing
    - Census and other available data
    - Past patterns of development
    - Current plans and policies
    - Forecast of population, households, and employment
    - Distributing forecast results proportional to current pattern or otherwise as data & available information indicates

Trending and Regional Score Card

- Publish the Initial Regional Scorecard of existing conditions and the Trend Futures Scenario
- Establish a regular schedule of monitoring progress towards achieving the Vision by improving the Scorecard Results
- Conduct Regional Housing Assessment for use in the Resource Library

Task #3 - Regional Summits and other meetings ABSTRACT and PLAN

Regional Summits

- Organize and facilitate the consensus at regional summits
    - Kick-off Summit
    - Virtual Present/Trend Future Summit
    - Virtual Present/Trend Future with Alternate Futures evaluations & emerging regional vision Summit
    - Final Summit presentation of

- Regional Visions
- Blueprint
- Implementation steps
- Announce demonstration projects

Cross Cutting/Administrative/Educational meetings

- Organize and facilitate the consensus at "other virtual meetings for cross cutting issues and technical or administrative discussions"
- Organize and develop educational and core/technical skills efforts
- Regional Values Polling and discussion regarding same at Regional Summits and use with Scorecard

Task #4 - Enhance Regional Leadership and Technical Capacity

Partners

FAU participants (*National Science Foundation's Industry-University Cooperative Research Center for Advanced Knowledge Enablement at Florida International University and Florida Atlantic Universities [NSF's I/UCRC-CAKE at FIU/FAU] will coordinate with The Florida Center for Environmental Studies, The Climate Change Initiative, Departments of Regional Planning, Geosciences, School of Architecture, Civil Engineering, Computer Science and Engineering, and others)*

FIU participants *(National Science Foundation's Industry-University Cooperative Research Center for Advanced Knowledge Enablement at Florida International University and Florida Atlantic Universities [NSF's I/UCRC-CAKE at FIU/FAU] will coordinate with the College of Engineering and Computing, including School of Computing and Information Sciences, High Performance database Research Center, and Department of Civil and Environmental Engineering, Lehman Center for Transportation Research; College of Medicine; The Metropolitan Center;, FIU Library Geographic Information Systems and Remote Sensing Center; Research Institute on Social & Economic Policy; and others*).

Tools and/or Resources

The process for developing a regional plan for sustainable development includes development and implementation of the regional vision to involve a variety of outreach and community feedback methods and develop a strategic communication plan and team that will provide a two-way flow of communication. Communication methods may include web-based and electronic tools that will include online storytelling, use the latest social networking tools and blogs, real-time news feeds on issues affecting the region, on-line surveys and websites to contribute comments, traditional outreach tools, posters and flyers and community events, programs on community-specific radio and television stations, speaker's bureau, easy to read multiple language fact sheets, newspaper inserts, newsletters, and communication and engagement within the community. Advisory committees will be charged with garnering input from and staying connected with the variety of community sectors that compose the region during the visioning and implementation process.

An assessment will be done to explore existing conditions which include inventory of what is currently available including information from the region's transportation models, redevelopment and land suitability models, water supply models, and other models. Data will be examined and synthesize to assess how each aligns with the project.

Planners and economists will develop the final plan of choice and path to proceed when gathering information. The consortium members working on these activities will identify the various data sets that need to be summarized in order to effectively comprehend the current conditions and future trends with respect to transportation, housing, the environment, fresh water supplies, energy needs, public health, cultural diversity, revitalization and preservation of existing communities, leveraging federal, state, local, private, and other resources, and all the issues identified the original proposal and work plan.

Remedy strategies for each barrier will be identified. Performance, tracking, and monitoring will also provide oversight. Tracking metrics may include developing transparent monitoring plan to allow its members and the public to evaluate progress and guide the progress of plan implementation, linking to the seven regional livability principles, enabling consortium members, stakeholders, and residents to understand and have a dialogue, and monitoring results will be communicated in a variety of ways.

FAU and FIU will lead in providing a heterogeneous virtual meeting platform for the SFRP and its constituency. The video conferencing system selected for virtual meetings is the multi-party conferencing system from Vidyo Inc. This conferencing system uses the state-of-art in video compression standard known as Scalable Video Coding (SVC) to support conferencing among end-points with varying bandwidth capabilities. The use of SVC allows high quality video conferencing even when some endpoints have low quality connection. The system also includes a conferencing gateway that converts video feeds from traditional conferencing system to Vidyo format using the SVC standard to ensure high quality.

Portfolio: Project Examples

Transportation

With support from the Florida Department of Transportation, Florida Atlantic University is investigating the potential sea level rise impacts to transportation infrastructure using LiDAR and other GIS and satellite techniques. FAU has arrived at a drill down approach to match ground data, on-the-ground investigation, aerial photographs and LiDAR data to identify vulnerable infrastructure. However, given the uncertainty with respect to predicting the timing of climate change impacts, FAU has also created milestone benchmarks in sea level elevation and is recommending that roadway elevations should be standardized at 10 ft above sea level for the 2060 and 2100 timeframes. Recommendations can be used to determine safe, reliable, cost-efficient and seamless multimodal transportation system that can be accessed by the whole population. GIS and satellite techniques can be used to develop a composite regional map with high speed rail alignment options.

Community Assets and Culture

Faculty in FAU's College of Urban Planning, Education, Business and Arts and Letters are actively conducting studies in the areas of cross-culture communication, management and education and vulnerability analysis. These studies are utilizing the community based participatory research, outreach, and education paradigm and include environmental and climate justice stakeholders with a special emphasis on the cultural and ethnic diversity of Florida's citizens and communities. Attention can be given to partnering with local arts and housing partners, and redevelopment agencies.

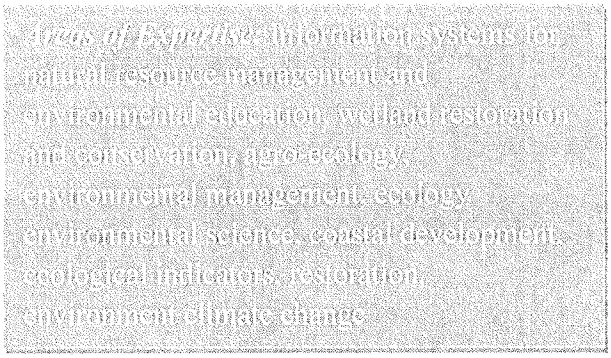
Climate Resiliency

FAU's climate change research program has six overarching goals under the rubric of outreach and technology development. Under this program, FAU is becoming a focus in the development of interdisciplinary climate change adaptation solutions and establishing a leadership role in developing new climate change assessment and adaptation technologies. ICCE program goals are: (1) synthesize current information on climate change impacts on natural systems and human-dominated built environments, (2) organize forums for communicating synthesized data, (3) develop collaborative relationships among governmental, non-governmental, business and academic organizations to set climate change research priorities based on consensus, and finally, (4) develop adaptation solutions that can be applied at the local, regional, and international scale. ICCE goals will help develop a coordinated adaptation to protect natural, built, and human communities from the effects of climate change and will help develop a regional climate change adaptation plan.

Resumes submitted separately

Leonard Berry, Ph.D.

Director
Florida Center for
Environmental Studies and the
FAU Climate Change Initiative
at Florida Atlantic University



Professional Experience

Dr. Leonard Berry is the founder and director for the Florida Center for Environmental Studies and the FAU Climate Change Initiative and is a professor of geography at Florida Atlantic University. Dr. Berry has worked on environmental and development training programs for USAID, UNSO, and UNEP, and worked for the World Bank in a number of capacities. He is currently the principle investigator on several ongoing projects including a Florida Department of Transportation project assessing the impacts of sea level rise on transportation infrastructure and a Florida State University System funded project creating a climate change task force for the State of Florida. His other research interests include effective information systems for natural resource management and environmental education, renewable energy, and sustainability issues. Dr. Berry has worked on hydrological issues in Africa, South America and the United States. He is a core member of the Inter American Water Resources Network, The Southeast Florida Regional Climate Change Compact's sea level rise technical working group, and chairs the board of the WaterWeb Consortium, an international water information group

Project Experience

- Interdisciplinary Collaborative climate and Energy (ICCE) Initiative, Florida Atlantic University - Director – Coordinating cross-institution multidisciplinary research (basic and Applied) on climate change mitigation and adaptation in Southeast Florida
- Principal Investigator on the FDOT funded project, "Development of a Methodology for the Assessment and Mitigation of Sea Level Rise Impacts on Florida's Transportation Modes and Infrastructure'
- Principal Investigator on the Florida SUS funded project " An SUS climate change task force: Science addressing the needs of Florida agencies, industry, and citizenry"
- Center for Ocean Energy Technology, Florida Atlantic University - Lead Environmental Scientist – Analysis of environmental impacts of ocean energy technology
- Florida Center for Environmental Studies - Director- Collection, analysis, research and promotion of scientifically sound information concerning tropical and sub-tropical freshwater, estuarine and coastal ecosystems

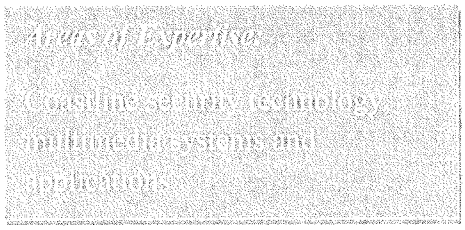
- Inter-American Water Resources Network–Board Member – Promote the formulation of water policies and sustainable water management in the Americas
- Water web Consortium - Chair member - Development of databases to promote the sharing of information concerning water and the earth environment.

Publications

- Berry, L., Gritzner, J. and G. Milan. The Earth Restoration Project. An Overview in Stanley D. Brunn, Ed. Engineering Earth: The Impacts of Mega engineering. Springer Science. In Press.
- Berry, L. Impact of Climate Change on American International Aquifers. Chapter in forthcoming book. International Aquifers in the Americas. UNESCO Paris, France.
- Berry, L. The Implications of Climate Change for Coastal Cities. Victoria, Brazil. October 2008.
- Berry, L., J. Jolley. Climate Change Workshop Summary. Practical Issues Related to Climate Change in Florida. January 12-13, 2006.
- Berry, L. and L. Boukerrou. Climate Information Needs for Decision Makers: Special Reference to water. Climate Science in Support of Decision-Making Workshop (poster). 2005
- Berry, L. Rehabilitating the Degraded Drylands in South America: Moving from Indicators to Sustainable Land Management. International Institute for Agricultural Cooperation (IICA) Brasilia. 35 pp.
- Berry, L. and W. Lusigi. Sustainable Land and Water Management. GEF. Washington, D.C. 60 pp.
- Berry, L., D. Campbell, G. Jewitt, Community-Based Integrated Land and Water Management in Africa. UNEP/GEF. 2004. 188 pp.
- Berry, L. Final Report. "Water Supply for El Triunfo, Guatemala." Florida Center for Environmental Studies
- Berry, L. Managing Water for Sustainability. US-Africa Foundation. Orlando. Aug

Borko Furht, PhD

Professor and Chairman
Department of Computer Science and Engineering at Florida Atlantic University



Professional Experience

Dr. Furht's current research is in multimedia systems, video coding and compression, 3D video and image systems, video databases, wireless multimedia, and Internet computing. Dr. Furht has been Principal Investigator and Co-PI of several multiyear, multimillion dollar projects – on Coastline Security Technologies, funded by the Department of Navy, I/U CRC Center funded by NSF, One Pass to Production funded by Motorola, NSF PIRE project on Global Living Laboratory for Cyber Infrastructure Application Enablement, and High-Performance Computing grant from NSF. Dr. Furht is a founder and editor-in-chief of the Journal of Multimedia Tools and Applications. Dr. Furht has consulted for many high-tech companies and various colleges and universities and has been an expert witness for Cisco and Qualcomm. He has also served as a consultant to various colleges and universities.

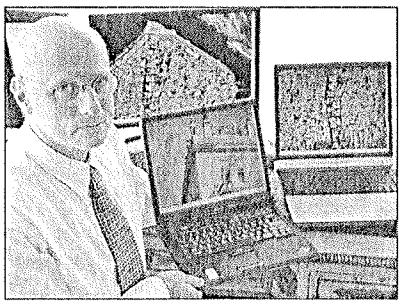
Project Experience

- One of PIs in a Federal Earmark Research Project on Center for Coastline Security Technologies
- Co-PI in NSF funded project on A Global Living Laboratory for Cyberinfrastructure Application EnablementFounder and Editor in Chief of the *Journal of Multimedia Tools and Applications*
- Consulting Editor for the Book Series on Multimedia Systems and Applications (Springer) Consulting Editor for the *Book Series on Telecommunications* (CRC Press, Taylor & Francis Group)
- Editor-in-Chief of Multimedia Security Handbook (with D. Kirovski, Microsoft Research), CRC Press, 2005.
- Editor-in-Chief of Encyclopedia of Wireless and Mobile Communications, OnlineVersion , *Auerbach Publishing, Taylor & Francis Group, 2008.*
- Editor-in-Chief of Handbook of Mobile Broadcasting, *(jointly with Syed Ahson), CRC Press, Taylor & Francis Group, 2008.*
- Editor-in-Chief of Handbook of Long Term Evolution of the 3GPP Radio Technology , *(jointly with Syed Ahson), CRC Press, Taylor & Francis Group, 2008.*
- Editor-in-Chief of Encyclopedia of Multimedia, 2nd Edition, *Springer, 2008.*
- Editor-in-Chief of Handbook of Digital Media in Entertainment and Arts, Springer, 2009.
- Editor-in-Chief of Handbook of HSDPA/HSUPA, (jointly with Syed Ahson),CRC Press, Taylor & Francis Group, 2009.
- Editor-in-Chief of Handbook of Cloud Computing, Springer 2010.
- Center of Excellence for High-Performance Computing (Technical Proposal)

- President Obama's Inauguration (Amizing digital image technology)
- World University Presidents Summit, Belgrade (Serbia), April 2009
- Seven IT Grand Challenges
- Editor-in-Chief of Handbook of Social Networks Technologies and Applications, Springer 2010.
- Presentation: Vision of the Computing in the New Global Economy, 2009
- Presentation: The Magic of the Hypercube: From Parallel Computing to Multimedia, 2009
- Presentation: Inaugural Department's Presentation, 21 August, 2009
- Presentation: Meeting with PhD Students, September 2009
- Presentation: Vision of Information Science and Technology in the New Global Economy, 2010
- Editor-in-Chief of Handbook of Augmented Reality Technologies and Applications, Springer 2011
- Presentation: I/U CRC
- Presentation: MUE
  Presentation: IAB Meeting, November 2010
- IabMeetings
- Belgrade, October2010
- Editor-in-Chief of Handbook of Data Intesive Computing, Springer 2012.
- Presentation: Vision of Engineering,ICMCS,April2011
- Presentation: Dean's Interview, May 9, 2011

FIU | FLORIDA INTERNATIONAL UNIVERSITY

Naphtali David Rishe
High Performance Database Research Center,
School of Computing and Information Sciences
University Park, FIU ECS-243, Miami, FL
rishe@fiu.edu
Office (305) 348-1706
FAX: (305) 348-1707



Summary of Achievements

The inaugural Outstanding University Professor
Professor of Computer Science
Director, FIU High Performance Database Research Center
Director, NASA Regional Applications Center in Miami
Director, NSF FIU-FAU-Dubna Industry/University Cooperative Research Center for Advanced Knowledge Enablement
Director, NSF Center of Research Excellence in Science and Technology at FIU
Director, Health Information Technology Initiative

Experience

Dr. Rishe is the Author of 3 books on database design and geography; Editor of 5 books on database management and high performance computing; Inventor of 4 U.S. patents on database querying, semantic database performance, Internet data extraction, and computer medicine; Author of 300 papers in journals and proceedings on databases, software engineering, Geographic Information Systems, Internet, and life sciences; Awardee of over $40 million in research grants by Government and Industry, including NASA, NSF, IBM, DoI, USGS; Architect of major industrial projects -- both prior to his academic career, and as a consultant since; Founder and Director of the High Performance Database Research Center at FIU (HPDRC); Director of the NSF Center for Research Excellence in Science and Technology at FIU (CREST) and of the NSF International FIU-FAU-Dubna Industry-University Cooperative Research Center for Advanced Knowledge Enablement (I/UCRC); Mentor of 70 postdocs, PhDs and MS; the inaugural FIU Outstanding University Professor. Rishe's TerraFly project has been extensively covered by worldwide press, including the *New York Times*, *USA Today*, NPR, *Science* and *Nature* journals, and *FOX TV* News.

Principal Projects:

- TerraFly -- a 40 TB database of aerial imagery and Web-based GIS
- Semantic Wrapper of Relational Databases and Application of SQL for Concise Semantic Querying
- Semantic Database Management
- Medical Informatics

Vitae, ATOROD AZIZINAMINI, Ph.D., P.E.

ACADEMIC EXPERIENCE

Dec 2010 – Present	Chairperson, Civil and Environmental Engineering Department, Florida International University
7/98 –Dec 2010	Funding Director, National Bridge Research Organization (NaBRO), University of Nebraska-Lincoln
1/2008 – Dec, 2010	Distinguished College of Engineering Professor, University of Nebraska-Lincoln
4/2000 – 1/2008	Professor, Civil Engineering Department, University of Nebraska-Lincoln.
5/95 – 4/2000	Associate Professor, Civil Engineering Department, University of Nebraska-Lincoln.
8/89 - 5/95	Assistant Professor, Civil Engineering Department, University of Nebraska-Lincoln.

INDUSTRIAL EXPERIENCE

10/85 - 8/89	Structural Engineer with Construction Technology Laboratories (CTL), Structural Development Section, Skokie, IL.
10/78 - 8/80	Structural Design Engineer, R.P. Hucks Engineering, Inc., Charleston, SC
Registration	Registered Professional Engineer in Nebraska and Montana
Consulting Activities:	Have provided Consulting work for design of steel bridges in Nebraska, Wyoming, Montana and Oregon. Field testing of post tension concrete bridges for detecting corrosion, Field testing historic bridges for rating, Expert witness in bridge related cases. Rating bridges with fracture critical members. Gusset plate and its influence on rating steel bridges. Economical alternatives for retrofitting bridges with damaged gusset plates

SELECT NATIONAL AWARDS

1. American Institute of Steel Construction **(AISC), Special Achievement Award**, for developing folded plate girder systems for short span bridges and bringing the concept to market, Dec 2010
2. University Endowed Professorship, Jan 2008
3. **"Partnership in Excellence Award"**, for "Contribution to Accelerated Bridge Construction Technology Transfer", Given by FHWA, May 26, 2006
4. **"2005 Prize Bridge Competition Merit Award"**, in recognition of outstanding design in structural steel-Medium Span Category- presented by American Institute of Steel Construction, 2005
5. **"Best Paper Award"**, for " High Performance Steel Cost Comparison Study-Box Girders", co-authored by Richard Horton (HDR Engr.), Edward Power (HDR Engr.), Atorod Azizinamini and Gary Krupika (HDR Engr), Presented at FHWA Steel Bridge Conference, December 2004.
6. **"Major Achievement Award"**, Presented by Federal Highway Administration (FHWA), for activities, research and educational activities for promoting use of High Performance Steel at national level, December 2004
7. January 1998, **Innovation in Steel Bridge Award**, American Iron and Steel Institute
8. 1997, Member of the collaborative research team winning the **1997 CERF Charles Pankow Award for Innovation** (High Performance Steel Initiative) given by the ASCE Engineering Foundation, (principal investigator of the project at the University of Nebraska-Lincoln).
9. November 1996, **FHWA Award of Appreciation**, for Advancement of High Performance Concrete Technology.

SELECT PROFESSIONAL SOCIETY MEMBERSHIP

1. **Member**, European fib Commission 5 – Service Life of Concrete Bridges (2010- present)
2. **Chairman**, ASCE Bridge Technical Administrative Committee (Bridge TAC), Responsible for overseeing the activities of the following ASCE Bridge Committees (2003 – 2006)
3. **Chairman**, ASCE Steel Bridge Committee, 1997-2003
4. **Member**, ASCE, Bridge Security Committee, 2005-Present
5. **Chairman**, ACI 363 High Strength Concrete Sub-Committee (ACI 363-1), 1996-1999
6. **Member**, TRB Committee A2C05, "Dynamic and Field Testing of Bridges," 1995-2005
7. **Member**, American Iron and Steel Institute Steel Bridge Task Force (membership and attending the bi-annual meeting by invitation only), 1994-present
8. **Chairman**, ACI 408 Subcommittee on Bond in High Strength Concrete, 1991-1999
9. **Chairman**, ACI 441 Subcommittee on High Strength Concrete Columns, 1991- 1999