# Michael A. Stubblefield, PhD

Vice Chancellor for Research and Strategic Initiatives Southern University and A&M College



## Objective

To promote Louisiana in a fashion that advances an aggressive "Quality of Life" strategy that supports the Governor's vision of not only responding to opportunities, but anticipates future ones as well that supports a Louisiana economy that is research-driven and resource-sustained. In doing so, we effectively link government, education, research, and the private sector in promoting community development and economic growth.

### Experience

#### Vice Chancellor for Research, Southern University

#### October 2007 - Present

- Recommending research policy on a campus-wide basis in support of grants, contracts, and other sponsored projects at the University.
- Consolidating and coordinating policies, operations, and units related to (sponsored) research, technology transfer, and associated external and internal affairs programs at the University.
- Serving as the University's representative to enter into grants and contracts and to oversee their execution and closure.
- Providing technical and administrative oversight of strategic initiatives, research centers, institutes, and other research related functions.
- Developing and identifying funding opportunities from federal/state agencies, foundations, and corporations to support research efforts at the university.
- Providing leadership in support of Institutional Research and Effectiveness.
- Providing leadership for the Strategic Engagements and Economic Development efforts.

Director, Center for Energy and Environmental Studies	7/1998 - 09/2007
Director, Center for Information Technology Innovation	7/2002 - 09/2007
Associate Professor, SUBR Mechanical Engineering	7/2003 - Present
Assistant Professor, SUBR Mechanical Engineering	8/1997 - 6/2003
Director, Research and Development, Specialty Plastics, Inc.	10/1997 - 9/1998
Highlighted Internships	10/1997 - 9/1998

- Frito-Lay, Inc. 1991
- Central Intelligence Agency 1988, 1989, 1990

#### Education

PhD, Engineering Science, Louisiana State University

7/1997

Research Area: Composite Materials, Thermal and Fluid Sciences



# Honors, Distinctions, Appointments

2013-Pres	Chairman, Louisiana Optical Network Initiative
2015 <b>-P</b> res	Chairman (Interim), Oak Ridge Associated Universities, HBCU/MI
2013-2015	Co-Chairman, Oak Ridge Associated Universities, HBCU/MI
2011-Pres	Southern University Representative: Oak Ridge National Laboratory Mentor-Protégé Program
2011- Pres	National Science Foundation Proposal Reviewer
2010 - Pres	Oak Ridge Associated University - SU Councilor (Representative)
2009	Louisiana Board of Regents - Sponsored Programs Advisory Board Member
2008, 2013/14	Southern University - Grantsmanship Award: Millionaire Club
2008 - 2010.	National Science Foundation - Advisory Committee on Cyber Infrastructure
2007	LA Governor's Transition Higher Education Group of the Economic Growth Transition Advisory Council
	Appointee
2006	Southern University - Most Awarded Proposals / Grantsmanship Award -
	Millionaire Club
2006	Southern University - Most Awarded Proposals
2006	Southern University Grantsmanship Award - Millionaire Club
2006 - Pres.	East Baton Rouge Parish Brownsfield Steering Committee
2006 - Pres	Louisiana Optical Network Initiative, Management Council Member
2012 - Pres	Louisiana Optical Network Initiative, Vice Chairman
2004	Baton Rouge Business Report, "2004 Top Forty Under Forty" Awardee
2004	Baton Rouge Business Report, Featured Cover Story (June 22-July 23, 2004 edition)
2003	Southern University - Most Awarded Proposals
2003	Southern University Grantsmanship Award - Millionaire Club
	(Over \$1M in awarded grants/contracts)
2002	"Ten Paper Cup Award," ASME Energy Sources Technology and Exhibition Conference
2001/2002	Session Co-Chair: ASME Energy Sources Technology and Exhibition, February 5-7, 2001
	"2001 Inductee - SU Young Faculty Award: Science, Mathematics, Engineering, & Technology Hall of
	Fame" Southern University, Baton Rouge
2000	Vice Chairman, East Baton Rouge Parish Planning Commission for Brownfields
2000	Southern University Grantsmanship Award - Silver Club
1999	DuPont/Conoco Young Professor Award
1998	"1997 Distinguished Dissertation Award in Science, Engineering, and Technology," Louisiana State
	University, Top Dissertation in College of Engineering
1996	Huel D. Perkins Recognition Award Recipient
1993	First Place, Best Student Paper Award, 1993 ASME Pressure Vessels and Piping Division Conference,
100000	Denver Colorado, July 25-29, 1993.
1992-95	Louisiana Board of Regent's Fellowship Recipient
1991	GEM's Fellowship Recipient
1989 - 1991	United Negro College Fund Recipient
1987 - 1990	Central Intelligence Agency Undergraduate Scholar

# Publications (Authored/Co-Authored Refereed Papers)

1. "Heat Loss in Insulated Pipe - The Influence of Thermal Contact Resistance: A Case Study," *Composites, Part B: Engineering*, Vol. 27B, No. 1, pp. 85-93 (1996).

- 2. "Smoke and Toxicity Tests of Fiberglass-Resin Composite Pipe Samples," *Composites, Part B: Engineering*, Vol. 28B, pp. 287-293 (1997).
- 3. "Fire Endurance Tests of Dual-Wall Fiberglass-Resin Composite Pipe," *Composites, Part B: Engineering*, Vol. 28B, pp. 295-299 (1997).
- 4. "Development of Heat-Activated Joining Technology for Composite-To-Composite Pipe Using Prepreg Fabric," *Polymer Engineering and Science*, Vol. 38, No. 1, pp. 143-149, January (1998).
- 5. "Thermal Analysis Characterization of Fiberglass Epoxy Prepreg Used to Join Composite Pipes," *Polymer Engineering & Science*, April 1999, Vol.39, No.4
- 6. "Thermal Analysis of Curing Process of Epoxy Prepreg," Journal of Applied Polymer Science, Vol. 83, pp. 1074-1083, (2002).
- 7. "Investigation of Prepreg Bonded Composite Single Lap Joint," Composites, Part B: Engineering, Vol. 32B, No. 8, pp. 651-658, (2001).
- 8. "Dynamic Modeling of Curing Process of Epoxy Prepreg." Journal of Applied Polymer Science, Vol. 86, No. 8, 2002.
- 9. "Investigation into FRP repaired RC Columns," Journal of Composite Structures, Vol. 62, pp. 83-89, 2003.
- 10. "Fast Joining of Composite Pipes Using UV Curing FRP Composites," *Polymer Composites*, Vol. 25, No. 3, pp. 298-306 (2004).
- 11. "Transient Two Dimensional Numerical Modeling of Asymmetric Curing Process," *Polymer Engineering & Science*, 2003.
- 12. "Waste Tire Fiber Modified Concrete," *Composite Part B: Engineering*, Vol. 35B, No. 4, pp. 305-312, June (2004).
- 13. "Light Intensity Effect on UV Cured FRP Coupled Composite Pipe Joints," *Journal of Composite Structures,* Vol 64 (3-4), pp. 539-549, 2004
- 14. "Fast Joining of Composite Pipes Using UV Curing FRP Composites," *Polymer Composites*, Vol. 25, No. 3, pp. 298-306, (June, 2004).
- 15. "Waste Tire Fiber Modified Concrete," *Composite Part B: Engineering*, Vol. 35B, No. 4, pp. 305-312, June (2004).
- 16. "Development of Waste Tire Modified Concrete," *Cement and Concrete Research*, Vol. 34, No. 12, pp. 2283-2289, (December, 2004)
- 17. "Traffic capacity under air quality constraints." Advances in Transportation Studies-An International Journal, 6B, 73-84.
- 18. "Transient Two Dimensional Numerical Modeling of Asymmetric Curing Process," *Polymer Engineering & Science* (accepted, 2005)
- 19. "High-Velocity Impact Response of Glass Fiber-Reinforced Composites Subjected to Offshore Environmental Attack," *Composite Part B: Engineering*, (Submitted August 2005).
- 20. Urban Forest Ecosystem Structure and Function of the Gulf Coastal Communities in the United States. In E. Tiezzi et.al. (edited) Ecosystem and Sustainable Development V. Advances in Ecological Sciences, Vol 22. ISBN: 1-84564-013-6. WIT Press, Ashurst, Southampton, SO40 7AA, UK.
- 21. "Impact and Post Impact Response of Laminated Beams at Low Temperatures," *Composite Structures*, Vol. 79, No. 1, pp. 12-17, (June 2007)
- 22. "Bond Behavior of Joints under Mode-II Loading: A New Free End Slip Based Closed-form Solution," ASCE Journal of Engineering Mechanics, (2008).
- 23. Bering Glacier: Interdisciplinary Studies of Earth's Largest Temperate Surging Glacier, Chapter 24: Bering Glacier, Climate Change, and the Southern University Research Experience, Geological Society of America, (2009)
- 24. Louisiana: A Model for Advancing Regional e-Research through Cyberinfrastructure, to appear in Philosophical Transactions of the Royal Society A, (2009)
- 25. Crack Initiation Process of DCB Specimens Based on First-order Shear Deformation Theory, *Journal of Reinforced Plastics and Composites*, Vol. 29, No. 5,pp. 651-663 (2009).
- 26. Molecular Docking of Bisphenol A and Its Nitrated and Chlorinated Metabolites onto Human Estrogen-related Receptor Gamma, *Journal of Biochemical and Biophysical Research Communications*, 426(2):215-20. doi: 10.1016, 2012.

27. Various Shape Memory Effects of Stimuli-Responsive Shape Memory Polymers, *Journal of Smart Materials and Structures*, Vol. 22, 093001, (23pp), 2013.

<u>Dissertation</u> "Performance of Composite Piping Systems: Thermal, Fire Endurance, and Joining Characteristics," Ph.D. Dissertation, Louisiana State University, August 1997. Was the *Finalist* for the <u>1997 LSU Distinguished</u> Dissertation Award."

SPECIAL REPORT: A Green-Energy Plan for Louisiana for the 2009 Regular Session of the Louisiana State Legislature. SCR 13.

### Research/Educational Projects (Principal and Co-Principal Investigator)

- 1. "Optimization of Insulated Pipe System for Aerospace Application," NASA/Louisiana Space Consortium, 07/15/93 08/15/94, \$9,000.
- 2. "Development of Advanced Composite Piping Systems with Improved Fire Resistance and Smoke Toxicity Characteristics," Louisiana Board of Regents, Louisiana State University, and Smith Fiberglass Products, Inc., , 06/01/94 06/30/97, \$155,000.
- 3. "Development of Heat Activated Couplings for Composite/ Composite and Composite/Alloy Pipes," NASA/Louisiana Space Consortium, 05/01/97 02/28/98, \$10,500.
- 4. "Innovative Development of Joining/Fitting Technology for Advanced Composite Piping System," Advanced Technology Program/National Institute of Standards and Technology (ATP/NIST), 10/01/95 09/30/98,\$1,815,584.
- 5. "Design, Analysis, and Prototype Equipment Construction of an On-Site Joining Method for Composite and Alloy Materials," Louisiana Board of Regents, 06/01/96 06/30/99, \$358,293.
- 6. "Research Experiences for Minority Undergraduates in Advanced Composite Piping Systems," National Science Foundation, (07/01/97 06/30/2000, \$502,101.
- 7. "Research and Educational Experiences for Minority Undergraduates in Composite Materials," NASA, 09/01/97 08/31/2000, \$400,000.
- 8. "Modeling and Analysis of Heat-Activated Thermal Coupling for Joining Composite to Composite/Alloy Structures," NASA, 07/01/98 06/30/2001, \$298,750.
- 9. "Development of Fire Resistant Composite Pipe for Essential Delivery Systems," Louisiana Board of Regents, 06/01/98 06/30/2001, \$91,000.
- 10. "Mathematics and Science Enrichment Activities for Middle and High School Students," NASA, 07/01/98 06/30/2001, \$300,000.
- 11. "Joining FRP Composites Using Ultrasonic Welding Technology," Louisiana Board of Regents, 07/01/99 06/30/2002, \$130,000.
- 12. "Undergraduate Research Experiences in Composite Materials for Petrochemical and Offshore Applications," National Science Foundation, 07/01/99 06/30/2002, \$264,194
- 13. "Institute for Rehabilitation of Sewer Infrastructure (IRSI)," US Environmental Protection Agency, 06/97-08/01, \$250,000. (Stubblefield 7/2000 8/2001)
- 14. "Sewer Design Manual," US Environmental Protection Agency, 07/98 08/01, \$100,000
- 15. "Institute for Environmental Issues and Policy Assessment," US Environmental Protection Agency, 09/97-08/03, \$1,200,000,
- 16. "Mobile Environmental Classroom," Louisiana Board of Elementary and Secondary Education, 07/01/00 06/30/02, \$200,000
- 17. "Academic Enhancement, Research and Training for SU Computer Science, Engineering and Mathematics Students," National Science Foundation, 08/01/01-07/31/03, \$297,000
- 18. "Center for Coastal Zone Assessment and Remote Sensing," National Aeronautics and Space Administration, 02/01/03 01/31/08, \$5,988,000.
- 19. Shaw Mentor Protégé Program > \$1.5M

- 20. "Discovery and Visualization of Geospatial Intelligence for Homeland Security Using Computer Automated Virtual Environment (CAVE)," National Geospatial-Intelligence Agency, 06/2004 06/2006, \$120,000.
- 21. "Preliminary Planning and Assessment of the Atchafalaya Basin Floodway, Flat Lake Water Management," US Army Corps of Engineers, New Orleans, 06/2003 12/2004, \$250,000.
- 22. "Strategic Implementation Plan for the Formation of the Southern University Business and Research Corporation," US Department of Commerce, Economic Development Agency, 10/2004 9/2005, \$200,000 Cost-share match: La Department of Economic Development, \$110,000.
- 23. "Indefinite Delivery/Indefinite Quantity Contract with the US Army Corp of Engineers, New Orleans District," 06/2005-05/08, NTE \$1,500,000.
- 24. "Visualization of Historical Tactical Campaign For Effects-Based Operations Planning: An Approach of Computer Automated Virtual Environment," US Air Force Research Laboratory, 07/01/05 -08/31/06, \$99,812.
- 25. "Science Mission to Planet Earth (SMPE): IT-Integrated Coastal Education," National Science Foundation, 10/01/05-09/30/08, \$1,586,796.
- 26. "Collaborative Project: Faculty Development -- Multi University Research and Training in Information Assurance and Computer Security," <u>National Science Foundation</u>, Lead Institution: Louisiana State University: Collaborator (Louisiana Tech and Southern University, 01/01/07 09/30/2011, \$510,000.
- 27. "Preliminary Planning and Investigation Studies and Project Management Service for the New Orleans District Corp of Engineers," US. Corp of Engineers, New Orleans District, \$4,500,000,10/2006 10/2009.
- 28. "The LONI Institute: Advancing Biology, Materials, and Computational Sciences for Research, Education, and Economic Development," Louisiana Board of Regents, \$1,080,000 subaward to Southern (Awarding Agency: La Board of Regents, Lead University: LSU) 07/01/2007 to 06/30/2012.
- 29. "Smart Adhesively Bonded High-Performance Joint for Composite Structures" NASA EPSCoR/Louisana Board of Regents, \$2,007,000, PI: LSU; Southern University (SU)-PI: 10/01/2007 to 09/30/2010.
- 30. "Strengthening the Global Competence of Minority Students and Faculty in Forestry and Agriculture through Collaborative Programs with China," National Institute of Food and Agriculture, USDA, \$150,000, 8/01/2010 to 07/31/2013.
- 31. "ACE Implementation: The New Energy Workforce: Sustainable Materials, Energy, and Technology," National Science Foundation, \$3,000,000, 09/15/2010 to 09/30/2016.
- 32. "ACE Implementation Supplement: The New Energy Workforce: Sustainable Materials, Energy, and Technology," 2011 Summer Field Season Activities at the Bering Glacier, National Science Foundation, \$70,000, 09/15/2010 to 09/30/2016.
- 33. "ACE Implementation Supplement: The New Energy Workforce: Sustainable Materials, Energy, and Technology," Defining STEM Research Areas in International Research Participation, National Science Foundation, \$99,600, 09/15/2010 to 09/30/2015.
- 34. "IRES: Enhancing Global Competence and Research Skills in Climate Change and Urban Ecosystems Through Collaborative Research in China," National Science Foundation, \$150,000. 08/01/2011 to 07/31/2014.
- 35. "An Ecosystem Approach to Global Climate Change Education," National Aeronautics and Space Administration (NASA), \$725,512. 09/01/2011 03/01/2014.
- 36. "Center for Business Opportunities and Disaster Recovery Assistance," US Department of Commerce, EDA, \$1,000,000, 10/01/2012 09/01/2015.