

RESEARCH & DEVELOPMENT GRANTS

Grants from External Sponsors

1) Title:	Virtual Hydrologic Observatory: Integration of field observations and process-based simulations
Funding Agency:	National Science Foundation (NSF)
Role:	PI
Amount	\$149,449
Period:	1/2008 - 2/2010
2) Title:	Improving Rainfall Estimation over the Nile Basin Using Merged Multi-channel Infrared and Microwave Satellite Observations
Funding Agency:	National Science Foundation (NSF)
Role:	PI
Amount	\$58,500
Period:	8/2009 - 8/2011
3) Title:	Uncertainty of Radar Rainfall Estimates and Implications for Hydrologic Flood Predictions
Funding Agency:	Research Competitiveness Program - Louisiana Board of Regents Support Fund
Role:	PI
Amount	\$99,150
Period:	6/2006 - 6/2010
4) Title:	Validation of NASA Satellite-Rainfall Products: Investigating the Use of Radar-Rainfall Data as a Ground Reference
Funding Agency:	NASA EPSCoR – Developing Aerospace Research & Technology
Role:	PI
Amount	\$28,852
Period:	6/2009 - 6/2010
5) Title:	Assessment of Satellite Rainfall Estimates for Improved Flood Predictions
Funding Agency:	LaSPACE-NASA Space Grant
Role:	PI
Amount	\$29,749

Period:	3/2007 - 9/2008
6) Title:	Development of a Virtual-Reality Hydro-ecological and Engineering Observatory System
Funding Agency:	Louisiana Board of Regents Support Fund Enhancement Program
Role:	PI
Amount	\$80,092
Period:	6/2007 - 6/2009
7) Title:	Analysis of Rainfall-Accident Relationships Using High-Resolution Radar-Rainfall Data
Funding Agency:	Louisiana Transportation Research Center (LTRC), Transportation Innovation For Research Exploration (TIRE)
Role:	PI
Amount	\$29,796
Period:	1/2007 - 5/2008
8) Title:	Error Analysis of the Multi-sensor Precipitation Estimation Products Using Ground Reference Independent Data
Funding Agency:	National Weather Service, National Oceanic and Atmospheric Administration (NOAA)
Role:	PI
Amount	\$10,000
Period:	8/2006-12/2007
9) Title:	Variability of Rain Drop Size Distributions and Implications for Remote-Sensing of Rainfall
Funding Agency:	LaSPACE-NASA Space Grant
Role:	PI
Amount	\$20,853
Period:	4/2005-8/2006
10) Title:	An Uncertainty Analysis framework for the CLEAR Ecosystem Model: Using Barataria Basin as Test Domain and Skill assessment
Funding Agency:	Louisiana Department of Natural Resources (through the Coastal Louisiana Ecosystem Assessment and Restoration CLEAR)
Role:	PI

Amount	\$15,700
Period:	1/2005 – 12/2006
11) Title:	Exploratory Analysis of Spatio-Temporal Dependency Structure of Radar Rainfall Estimation Error Using Dense Surface Observations.
Funding Agency:	Pfund program (EPSCoR National Science Foundation)
Role:	PI
Amount	\$9,500
Period:	7/2006-5/2007
12) Title:	Travel Grant for Emerging Faculty (TGEF)
Funding Agency:	National Science Foundation EPSCoR TGEF program
Role:	PI
Amount	\$2,000
Period:	April 2006
13) Title:	Uncertainty Analysis of Salinity Forecasting Using Remote Sensing Rainfall Data for (awarded to my graduate student)
Funding Agency:	NASA-LaSPACE Graduate Student Research Assistance Program
Role:	PI
Amount	\$4,000
Period:	9/2006-8/2008
14) Title:	Validation of NASA-TRMM MPA Precipitation Estimates Using Gauge and Radar Surface Data (awarded to my under-graduate student assistant)
Funding Agency:	NASA-LaSPACE Under-graduate Student Research Assistanship Program (LURA)
Role:	PI
Amount	\$10,000
Period:	9/2007-8/2009
15) Title:	Flood Prediction and Water Management for Sinai Peninsula, Egypt, Using Remote Sensing and Distributed Hydrologic Modeling Techniques
Funding Agency:	National Science Foundation

Role:	Co-PI
Amount	\$54,768
Period:	8/2005-9/2008
16) Title:	Water and Sediment Budget Analyses for the Chenier Plain
Funding Agency:	Coastal Restoration and Enhancement through Science and Technology (CREST) Program
Role:	Co-PI
Amount	\$87,387
Period:	7/2004-12/2006
17) Title:	Evaluation of Alternative Levee Design for Category 5 Hurricanes in Chenier Plain
Funding Agency:	US Army Corps of Engineers, the New Orleans District
Role:	Co-PI
Amount	\$227,000
Period:	1/2006-12/2006
18) Title:	Lafayette Flood Study: Hydrologic Modeling – DFIRM
Funding Agency:	US Army Corps of Engineers
Role:	Co-PI
Amount	\$42,258
Period:	10/2004-2/2006
19) Title:	Oil and Chemical Spill Contingency Plan for the Lower Mississippi River
Funding Agency:	Louisiana Applied Oil Spill Research and Development Program
Role:	Co-PI
Amount	\$64,611
Period:	5/2003 – 4/2005
20) Title:	Hydrologic Investigation of Low-gradient Watersheds
Funding Agency:	Army Research Office, Department of Defense
Role:	Co-PI

Amount	\$24,807
Period:	06/2004 – 06/2005
21) Title:	Hydro-Ecological Modeling of Lower Mississippi
Funding Agency:	The Louisiana Governor’s Applied Coastal Research and Development Program
Role:	Co-PI
Amount	\$124,999
Period:	5/2003 – 4/2005
22) Title:	Laboratory Experimental Study for the Hydraulics and Structural Performance of Flap Gates
Funding Agency:	Louisiana Department of Natural Resources
Role:	Co-PI
Amount	\$55,911
Period:	03/2004 – 10/2004
23) Title:	Technical and Hydrologic Review and Evaluation for the Statewide Flood Protection Program
Funding Agency:	Louisiana Department of Transportation and Development
Role:	Co-PI
Amount	\$68,824
Period:	12/2004 and 12/2005

[Grants Funded by the University](#)

1) Title:	Development of a Computational-Intensive and Visualization-based Atmospheric and Hydrologic Forecasting Making System
Funding Source:	Information Technology ITI Program – University of Louisiana at Lafayette
Role:	PI
Amount	\$60,716
Period:	7/2007 - 7/2008
2) Title:	Open Source Analytical Tools for Geospatial Data Analysis

Funding Source:	Information Technology ITI Program – University of Louisiana at Lafayette
Role:	Co-PI
Amount	\$92,454
Period:	7/2007 - 7/2008
3) Title:	CREST Scholars Award (awarded to my graduate student)
Funding Agency:	University of Louisiana at Lafayette through Coastal Restoration and Enhancement through Science and Technology (CREST) Program
Role:	PI
Amount	\$2,500
Period:	11/2006-11/2007
4) Title:	Civil Engineering: Upgrade and maintenance of computer labs
Funding Source:	STEP Grant Program – University of Louisiana at Lafayette
Role:	Faculty Investigator
Amount	\$31,550
Period:	Spring 2007
5) Title:	Web-based instructional improvements for the Engineering Fluid Mechanics Course
Funding Agency:	Instructional Improvement Mini-Grants, Office of Academic Planning and Faculty Development, UL Lafayette
Role:	PI
Amount	\$580
Period:	Fall 2006
6) Title:	Campus visit for Dr. Ali Tokay from NASA-GSFC
Funding Agency:	Office of Academic Planning and Faculty Development, UL Lafayette
Role:	PI
Amount	\$500
Period:	Spring 2007