

Louisiana Tech University



BREEZE BULLETIN

Office of University Research (<http://research.latech.edu>)

Obstacles can't stop you. Problems can't stop you. Most of all, other people can't stop you. Only you can stop you.

Jeffrey Gitomer
(American author)

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2014-15 TECH FRINGE RATES

The 2014-15 Tech Fringe Rates :

Faculty/Unclassified/Post Doc: 48.08%
 Civil Service: 57.08%
 Temporary/Part-time: 9.81%
 DROP: 20.08%

Click the following link to download a pdf chart: http://research.latech.edu/files/documents/2014-15_fringe_rates.pdf.

IN-HOUSE WORKSHOPS

For a full list of in-house workshops, go to http://research.latech.edu/resources/training_workshops/latech_workshops.

- **Grants.gov:** April 28, 2-3pm, WT1535
- **NSF Fastlane:** May 12, 2-3pm, WT1535
- **BoR Support Funds:** June 9, 2-3pm, WT1535

New Faces in University Research

Thank you, Tech community, for your patience and assistance during our recent personnel transition. We are happy to introduce, and please join us in giving a warm welcome to, our new additions to the University Research Team:

Ms. Courtney Hilton, University Research Contracts Administrator/ January 2015:

Ms. Hilton graduated Summa Cum Laude from Louisiana Tech University with a B.S. degree in Accounting. She continued her academic education receiving a MBA at University of Louisiana at Monroe. In addition to the successful completion of her degrees, she also received her State Board of LA CPA. While pursuing her degree at Louisiana Tech University, Ms. Hilton worked in the Office of Internal Audit as an Audit Clerk. Upon graduation, she began her professional career at Grambling State University as Director of Internal Audit; subsequently returning to Louisiana Tech University as the Manager of Financial Reporting in the Comptroller's office. Mrs. Hilton's professional goals are to serve the faculty, staff and students through providing support and guidance pertaining to the services of the Louisiana Tech University Research office.

Mrs. Jamie Hancock, University Research Post Award Coordinator/ February 2015:

Mrs. Hancock graduated from Louisiana Tech University with a B.A. degree in Speech Communication. She began her post-college career at Louisiana Tech as a Student Employment Coordinator/Financial Aid Counselor in the Financial Aid office. She continued pursuing her career at Texarkana College as Scholarship Coordinator, then returning to Louisiana Tech to serve as Assistant Director and later promoted as Associate Director of Student Financial Aid. Mrs. Hancock's professional goals are to provide post-award services of the Louisiana Tech University Research office to the university faculty, staff and students.

In the short time they have taken up residence on the 15th floor/WT, they have proven themselves invaluable. Thank you and welcome to Louisiana Tech Office of University Research!

NEW GRANTS AWARDED

PI/Co-PI	Title	Funding Agency	\$ Awarded
Arden Moore	<i>Three Dimensional Hexagonal Boron Nitride Networks for High Temperature, High Thermal Conductivity Ceramic Composites</i>	NASA/LASPACE	34,750
Bogdan Strimbu	<i>Use of High Resolution Aerial Photography and Other Remote Sensing System Mounted on UAV for Forestry Application</i>	Weyerhaeuser	35,000
Mary C. Moore	<i>Environmentally Responsive Drug Delivery Microparticles for Oral Delivery of Sodium, Nitrite</i>	NASA/LASPACE	5,000
Carlos Montes	<i>Utilization of Geopolymer Concrete in Solidification/Stabilization of Sorbent Impacted Fly Ash, Power Plant Wastewater Treatment Solids and Other CCPs</i>	EPRI	227,662
A. Jaganathan	<i>Robotic Mapping & Installation System for Subsurface Utility Relocation</i>	DOT/Intelligent Automation	30,000
Terri Maness	<i>Overwinter Survival of Henslow's Sparrows In Louisiana</i>	US Wildlife & Fisheries/LADWF	61,835.46
Edward Bell	<i>Rehabilitation Long-Term Training</i>	US Dept. of Education	750,000
Yuri Lvov	<i>EPA Student Fellowship/Joshua Tully</i>	EPA	27,000
Jay Wang	<i>Development of an Innovative Model for Analyzing Current (Wave)-Dike-Vegetated Soil Interaction and its Application in Louisiana Coastal Restoration Projects</i>	BoR	10,000
Arden Moore	<i>Ultrathin Hexagonal Boron Nitride for Near-junction Thermal Management of Electronics</i>	BoR	10,000
Joanne Hood	<i>REAP Grant</i>	US Dept. of Edu.	39,733
Leland Weiss	<i>MEMS Based Solution for an Integrated & Miniaturized Multi-Spectrum Energy Harvesting & Conservation System</i>	NASA/Radiance	300,000
David Mills	<i>Three Dimensional (3D) Metal Printing and Additive Manufacturing for Aerospace Applications</i>	NASA/LaSPACE	5,000
Yuri Lvov	<i>Building an Internationally Competitive Neutron Scattering Research Program</i>	DOE/BoR	65,625
October 2014		Total:	1,601,605
Donna Hood	<i>Basic Carryover Grant-Post-Secondary</i>	Dept. ED/LCTCS/ La Delta CC	2,400
Shaurav Alam	<i>Performance of Liner Subjected To Cyclic Pressure Changes at Tap Location at Macro and Micro Levels</i>	Sanexen	3,500
Mark DeCoster	<i>CELLDIPS: Cell Discovery Platforms for Commercial and Educational Applications</i>	NSF	50,000
November 2014		Total:	55,900
Teresa Murray	<i>Study of Cellular Dynamics in an Electromagnetic Field for Regenerative Healing</i>	BoR	10,000
Shaurav Alam	<i>Testing of Manhole Covers Subjected to Simulated AASHTO H-20/HS-20</i>	Southern Trench-	2,745
December 2014		Total:	12,745
Tom Iseley	<i>Basic Research on Application of Trenchless Technology in Medium and High Pressure Gas Pipeline Rehabilitation</i>	China Univ. of Geosciences	64,660
Prabhu Arumugam	<i>Procurement of a Large-Zoom Stereo Microscope and a Bipotentiostat Module for Micro Fabricating An Integrated Microfluidic-carbon Nanotube</i>	NASA/BoR	14,995
Dentcho Genov	<i>Electromagnetic Metamaterials Based on Diluted Metal Nanoparticle Composites</i>	BoR	4,500
Tom Iseley	<i>APICAL Research</i>	CenturyLink	25,229
January 2015		Total:	109,384
David Mills	<i>Anti-bacterial and Anti-protein Biofouling Halloysite Nanotube/Silicone Composites.</i>	BoR	20,000
Sanjay Tewari	<i>Capacitive Deionization Based Treatment and Metal Recovery From Lead-acid Battery Recycling Wastewater Stream</i>	BoR	15,000

NEW GRANTS AWARDED (CONT'D FROM PAGE 2)

PI/Co-PI	Title	Funding Agency	\$ Awarded
Prabhu Arumugam	<i>Development of High Surface Area Nanocrystalline Diamond Electrodes: Towards Commercialization of a Highly Portable On-site Mixed Oxidant Generator for Oil-Contaminated Water</i>	BoR	19,950
Jamie Newman	<i>The Role of the Notch Signaling Pathway in Mesenchymal Stem Cells</i>	BoR	4,500
Mark DeCoster	<i>OPT-IN: Partnership to Integrate Millifluidics & 3D-printed Cell Platforms</i>	BoR	20,000
Don Schillinger	<i>UTEACH@LaTech</i>	National Math & Science Initiative	1,450,000
Carlos Montes	<i>Study on the Solidification Potential of Brine from Wastewater and Impacted CCPs</i>	Alchemy Geopolymer Solutions	15,001
N.Wasiuddin	<i>Apical Reentry Test Plan</i>	Century Link	29,315
February 2015			Total: 1,573,766
B. Ramachandran	<i>Examination of Intellectual Property Developed by Advano, LLC for Scaled-up Manufacturing of Functionalized Silicon Nanoparticles</i>	New Louisiana Angel Fund, LLC	4,257
Niel Crews	<i>Phase II SBIR: Microfabrication Assistance, Characterization Testing, and Metrology for Radiance Prototypes</i>	DoD/Radiance	2,000
Chester Wilson	<i>DILTON</i>	AFRL/CIC	50,712
March 2015			Total: 56,969
			YTD Total 5,901,265

ADDITIONAL GRANT FUNDING FOR EXISTING AWARDS

- E. Allouche, DEVELOPMENT AND DEMONSTRATION OF A CAST-IN-PLACE-FIBERS TECHNOLOGY, CenturyLink \$3,500;
- S. Napper, AFRL COLLABORATION PROGRAM-SENSORS RESEARCH, DOD/Clarkson, \$30,000;
- S. Napper, AFRL COLLABORATION PROGRAM-SENSORS RESEARCH, DOD/Clarkson, \$20,000;
- S. Napper, AFRL COLLABORATION PROGRAM-SENSORS RESEARCH, DOD/Clarkson, \$19,400;
- E. Allouche, FIELD DEMONSTRATION AND RETROSPECTIVE EVALUATION OF REHABILITATION TECHNOLOGIES FOR WASTEWATER COLLECTION AND WATER DISTRIBUTION SYSTEMS, EPA through Battelle, \$24,963;
- K. Kimbell-Lopez, BUILDING SUSTAINABILITY: POWERFUL INSTRUCTION THROUGH INTERACTIVE READ ALOUDS, LITERACY STATIONS, AND WORKSHOP MODEL (YEAR TWO CONTINUATION), US Dept. of Edu/LaSIP, \$40,981.70;
- L. Manning, POWERFUL INSTRUCTION THROUGH INTERACTIVE READ ALOUDS & WORKSHOP, US Dept. of Edu/LaSIP, \$84,482.43;
- D. Schillinger, STEAM POWER, US Dept. of Edu/LaSIP, \$104,647.25
- L. Guice, LOUISIANA EPSCOR RESEARCH INFRASTRUCTURE IMPROVEMENT: COMPUTATIONAL MATERIALS EPSCOR CHAIR SUBCONTRACT, BoR \$16,320;
- E. Allouche, FIELD DEMONSTRATION AND RETROSPECTIVE EVALUATION OF REHABILITATION TECHNOLOGIES FOR WASTEWATER COLLECTION AND WATER DISTRIBUTION SYSTEMS, EPA/Battell \$18,550;
- D. Liu, AN EFFICIENT MODEL FOR FLOWS OF LARGE NUMBER OF PARTICLES AT MODERATE TO HIGH REYNOLDS NUMBERS AND ITS APPLICATIONS, NSF \$53,004;
- L. Weiss, CAREER: AMBIENT THERMAL ENERGY HARVESTING FOR POWER PRODUCTION, NSF \$81,439;
- J. Palmer, SUPERIOR GRADUATE FELLOWS SUPPORTING FIVE AREAS OF EXCELLENCE IN ENGINEERING 2013-2017, BoR \$50,000;
- P. O'Neal, LOUISIANA TECH RAPD SENIOR DESIGN PROGRAM, NSF \$24,998;
- J. Palmer, GRADUATE FELLOWS IN ENGINEERING 2011-15, BoR \$25,000;
- B. Ramachandran, GRADUATE FELLOWS IN COMPUTATIONAL ANALYSIS AND MODELING 2011, BoR \$50,000.

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PROPOSALS SUBMITTED

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$ Requested
15-079	Gibson, Mark		McIntire-Stennis Cooperative Forestry Research Program - 2015	USDA	245,757
15-080	Alam, Shaurav	Hall/Iseley	Tensile and Flexural Creep Testing of Liners Used in Pressurized and Gravity Water Mains	Premier Pipe USA	43,066
15-081	Liu, Don	Moore, Arden	Modeling, Design and Evaluation of Enhanced Phase Change Heat Transfer on Surfaces with Micro- and Nano-features	NSF	337,346
15-082	Atkison, Travis	Gourd, Jean	SFS at LaTech: Louisiana Tech University's Scholarship for Service Program	NSF	2,274,848
15-083	Hegab, Hisham	Orr/Apter-Deselles	IUSE/PFE:RED: Interweaving Professionalism, Engineering Fundamentals, and Applications	NSF	2,000,000
15-084	Romer, Braden	Szymanski/Hollins	Lumbopelvic Rhythm During Anterior Load Lifting	BoR/ENH	211,975
15-085	Heiden, Kathleen		Fashion From High School to College to Career: Enhancing Programs Through a Virtual Learning Environment	BoR/ENH	244,439
15-086	Thompson, Elaine	Rudnicki, Robert	North Louisiana History and Culture since the Civil War: A Symposium	BoR/ENH	17,420
15-087	Ker, Jun-Ing		Enhancement of Flexible Manufacturing Laboratory	BoR/ENH	65,000
15-088	Livingston, Mary	Coleman/Igou/Tobacyk	Virtual Desktop Infrastructure for Advanced Statistical Analysis for Enhanced Research and Instruction in the Department of Psychology and Behavioral Science at Louisiana Tech University	BoR/ENH	114,637
15-089	Moore, Mary	Arumugam/Jaganathan	Development of an Integrated Curriculum for Undergraduate Material Science and Engineering Course	BoR/ENH	100,000
15-090	Wang, Shengnian		Enhancing Nanomaterials and Energy Education with pyrolyzer and GCMS systems	BoR/ENH	75,990
15-091	Deal, Brad	DePaola, Pasquale	Digital Fabrication Enhancement via Robotic Milling Cell	BoR/ENH	186,250
15-092	Vincent, Lindsey		Bulldog Builders: SciTEC's "Funnery" for Educators and Innovators	BoR/ENH	59,895
15-093	Moore, Arden		GOALI: Hierarchical Hexagonal Boron Nitride Nanomaterials for Enhanced Thermal Management of Electronics	NSF	234,503
15-094	Tims, Heath	Crittenden/Swanbom	Enhancing Product Development through a Reverse Engineering Lab	BoR/ENH	40,504
15-095	Brown, Paula		Writing Matters: Enhancing the Effectiveness of the Louisiana Tech Writing Center Through a Writing in the Disciplines Program	BoR/ENH	146,531
15-096	Weiss, Leland		COLLABORATIVE RESEARCH: Hydrogen Sulfide Sensing for Bio and Hazard Mitigation	NSF	308,454
15-097	Wasiuddin, N.		Civil Engineering Senior Design Project: I-49 North, Segment K-Phase I (I-220 to MLK Dr.)	LTRC	5,000
15-098	Genov, Dentcho	Genov, Dentcho	Surface Plasmon Polariton Diode: Toward THz Optoelectronics at the Nanometer Length Scale	NSF	165,000

(*Missing File #'s denote withdrawn proposals)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 4 . . .)

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
15-099	Wang, Shengnian		Hybrid Field Microfluidics for Nonviral Nanoparticle Synthesis and Cell Reprogramming	NSF	299,968
15-100	Bishop, Thomas		CDS&E: ACI for Chromatin Modeling and Analysis	NSF	609,876
15-101	Romer, Braden		Load Carriage Effects on Gait Variability in ROTC Cadets	BoR/SURE	5,490
15-102	Murray, Teresa		High Spatiotemporal Resolution of Events in Progressive White Matter Damage in a Murine Model of TBI	NSF	298,788
15-103	Hood, Donna		Basic Carryover Grant-Post-Secondary	Carl Perkins	2,400
15-104	Liu, Don		Spectral Element Simulation of Electrokinetic Particulate Flows in Three Dimensions	NSF	197,711
15-105	Norris, Dave		I 20 Corridor Maker Space Innovation Network	EDA	500,000
15-106	Wang, Shengnian		Foamed Mesoporous Carbon/Silicon Composite Nanofibers for Energy Storage	NSF	299,968
15-107	Mills, David		Encapsulation of Clay Nanotubes for Combinatorial Drug Therapy	BoR/SURE	4,500
15-108	Alam, Shaurav	Iseley, Tom	Testing of Manhole Covers Subjected to Simulated AASHTO H-20/HS-20 Load	BlueGreen-TM Municipal Solutions	2,745
15-109	Palmer, James	Ramchandran, Ramu	Superior Graduate Fellows Supporting Five Centers of Excellence in Engineering 2016-2019	BoR/GF	400,000
15-110	O'Neal Patrick	Shipp, Mike	Universal Design: A Multidisciplinary Approach for Senior Design	NSF	125,000
15-111	Alam, Shaurav	Allouche, Iseley	Pickle Jar Testing of a PVC Liner	IPEX Management, Inc.	88,000
15-112	McCollum, Heather	Hughes/Lampthey/Jackson	Families4Health	HRSA	466,765
15-113	Murray, Teresa		GRIN Lens Implant For Preclinical In Vivo Documentation of TBI WM Damage and Drug Effects	NIH	350,962
15-114	Newman, Jamie		The Role of the Notch Signaling Pathway in Mesenchymal Stem Cells	BoR/SURE	4,500
15-115	Kim, Yeonsoo		Effectiveness of Individually Tailored Nutrition Therapy in Patients with Newly Diagnosed with Type 2 Diabetes	Academy of Nutrition and Dietetics	20,000
15-116	Liu, Don	Moore, Arden	Simulation of Bubble Flow Dynamics and Phase Change Heat Transfer with Experimental Validation	NSF	300,000
15-117	Ramachandran, Ramu	Campbell, William	Superior Graduate Fellows in Molecular Sciences and Nanotechnology 2015-2020	BoR/GF	200,000
15-118	Shoemaker, Sheryl	Ramchandran/Thomas	Increasing Diversity in Doctoral Populations at Louisiana Tech University 2015-19	BoR/GF	380,000
15-119	Dai, Weizhong		Computational Analysis and Modeling Doctoral Graduate Fellows	BoR/GF	200,000
15-120	Jones, Steven		Graduate Fellows in Biomedical Engineering 2015-2020	BoR/GF	200,000
15-121	Cahoy, Dexter	Strimbu, Bogdan	Superior Grad Fellows in Mathematics & Statistics	BoR/GF	200,000

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 6)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 5 . . .)

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
15-122	Arumugam, Prabhu		Procurement of a Large-Zoom Stereo Microscope and a Bipotentiostat Module...	NASA/EPSCoR	750,000
15-123	Montes, Carlos	Lvov/Allouche	High Temperature Resistance Geopolymers as Monolithic Refractory Concrete for Launch Pads	NSF	1,997,810
15-124	Bell, Edward		Louisiana Tech University Teachers of Blind Students	BoR/SURE	4,500
15-125	Moore, Mary		Optimizing Muscle Regeneration for Replacement of Damaged or Weakened Tissue	BoR/SURE	4,500
15-126	Hegab, Hisham	Orr/Desselles	IUSE/PFE:RED: The NEST (Nurturing Environment for STEM Talent)	Louisiana Sea Grant	2,500
15-127	Sawyer, Lee		SURE-Rachel Sun Rogers:Through Collisions Darkly: Searching for Dark Matter Candidates in Monojet Events	BoR/SURE	1,500
15-128	Genov, Dentcho		Electromagnetic Metamaterials Based on Diluted Metal Nanoparticle Composites	BoR/OPT IN	20,000
15-129	Wang, Jay		Erosion Resistance Evaluation of the Dredged Soils on Which Spartina Alterniflora was Established by Performing Field Vane Shear Tests	NSF	222,245
15-130	O'Neal Patrick		Addressing Health Disparities through Real-time Pharmacokinetics	NIH/SBIR	14,000
15-131	Mills, David		Anti-bacterial and Anti-protein Biofouling Halloysite Nanotube/Silicone Composites.	BoR/OPT IN	19,950
15-132	Liu, Don		Big-Data Simulations of Complex Fluid Flows on GPUs and Xeon Phi Coprocessors	NSF	314,210
15-133	Weiss, Leland		Development and Commercialization of a Hydrogen Sulfide Lab-on-a-Chip	BoR/OPT IN	15,000
15-134	Arumugam, Prabhu		Development of High Surface Area Nanocrystalline Diamond Electrodes: Towards Commercialization of a Highly Portable On-site Mixed Oxidant Generator for Oil-Contaminated Water	Gulf of Mexico Research Initiative	476,322
15-135	Leansuksun, Box		Transformative New Physics General Search Strategies for the LHC Enabled by a New Approach to Data Parallel Computing	BoR/OPT IN	20,000
15-136	Tewari, Sanjay		Capacitive Deionization Based Treatment and Metal Recovery From Lead-acid Battery Recycling Wastewater Stream	Louisiana Sea Grant	75,000
15-137	Wick, Collin	O'Neal, Patrick	The Effect of Surfactant Composition on Oil-in-water Micelle Size Distribution, Dispersant Effectiveness, and Critical Micelle Concentration...	Gulf of Mexico Research Initiative	476,322
15-138	DeCoster, Mark		OPT-IN: Partnership to Integrate Millifluidics & 3D-printed Cell Platforms	BoR/OPT IN	20,000
15-139	Wang, Jay		Soil Binding Ability of Natural Vegetation Spartina Alterniflora Established on Dredged Soils in Louisiana Coastal Areas	Louisiana Sea Grant	75,000
15-140	Shipp, Michael		Comprehensive Center for Rehabilitation Technology (CCRT)	Louisiana Rehabilitation Services	3,216,416
15-141	Tewari, Sanjay	Wang/Patterson	Remediation of Coastal Water, Beach Sediments, Soil, Marshes, and Wetlands Associated With Oil Spills	Gulf of Mexico Research Initiative	400,000

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 7)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 6 . . .)

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
15-142	Wang, Jay	Patterson, W.	Potential Impact of Oiling of Wetlands plan Spartina Alterniflora on Sustainability of the Marsh Accretion Projects	Gulf of Mexico Research Initiative	450,000
15-143	Liu, Don		Modeling Soil Particle Entrainment in Deltaic Rivers and Coastal Seas	NSF	222,269
15-144	Bennett, R.		When and How does High Pressure Supervision Become Abusive?	Australian Research Council	0
15-145	Maness, T.	Newman/Tewari	Effect of Environmental Stressors on the Health and Reproductive Success of Coastal Vertebrates	Gulf of Mexico Research Initiative	900,000
15-146	Arumugam, Prabhu		Development of a Novel Nanocrystalline Diamond Electrochemical Cell-bioremediation Hybrid Approach for On-site Remediation of Oil Contaminated Water	Gulf of Mexico Research Initiative	900,000
15-147	Patterson, William	Ross, William	Evaluation of Forest Community Composition, Structure, and Succession Nineteen Years After Planting the Cajun Electric Site, DeSoto Parish, Louisiana – Continuation for Second Year	Wildlife Habitat Coluncil (from US Fish & Wildlife Service)	12,000
15-148P	Iseley, Tom		APICAL Research	Century Link	109,800
15-149	McDonald, John		Catalyst development for Fischer-Tropsch Synthesis	American Strategic Innovations	88,496
15-150	Napper, Stan		CEA for CSC	La. Dept. of Education	1,800,000
15-151	Hollins, Bryant	Buboltz/Iasemidis	IOS Preliminary Proposal: The Role of Oxidative Stress on Cognitive Deficits in Sleep Deprivation	NSF	0
15-152	Orr, Marisa	Apter-Deselles, Marisa	IUSE:EHR: Collaborative Research: Enhancing Problem- and Project-Based Facilitation	NSF	382,284
15-153	Maness, T.		Using Social Entrepreneurship and Crowdsourcing to Infuse Quantitative Literacy into Undergraduate Life Science Curriculum	NSF	159,368
15-154	Newman, Jamie	Moore, Mary	Optimization of Cardiac Muscle Generation for Replacement of Damaged or Weakened Tissue	LSUHSC	25,000
15-155	Wasiuddin, N.	Islam, Readul	Development of a Foaming Warm Mix Additive from Industrial Waste for Asphalt Mixture	LTRC	30,000
15-156	Iseley, Tom	Xiaonan/Alam	Basic Research on Application of Trenchless Technology in Medium and High Pressure Gas Pipeline Rehabilitation	China University of GeoSciences (Wuhan)	64,600
15-157	Atkison, Travis	Gourd, Jean	Louisiana Tech's Center of Academic Excellence, Cyber Operations	NSA	0
15-158	Montes, Carlos		High Temperature Resistance Geopolymers as Monolithic Refractory Concrete for Launch Pads	NASA/EPSCoR	1,410,000
15-159	Adams, Josh		Identification of Drought Resilient Loblolly Pine Genotypes Using Integrated Genomic/ Physiological Techniques	DOE	3,818,403
15-160	Menkulasi, Fatmir		Development of a Composite Bridge System for Short and Medium-Span Bridges	LTRC	30,000
15-161	Alam, Shaurav	Hall/Iseley	Flexural Creep Testing of Newly Developed PVC Liner – TTM31 Formulation	IPEX Management, Inc.	17,385

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 8)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 7 . . .)

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
15-162	Alam, Shaurav		High Strength Super Light Weight Concrete for Transportation Infrastructures	LTRC	29,977
15-163	Tewari, Sanjay		Utilization of Fly/coal Ash Waste in Removal of Cadmium, Chromium, Copper, Nickel and Mercury From Industrial Wastewater	LTRC	29,987
15-164	lasemidis, Leon	Vlatchos, Ioannis	A New, Quantitative EEG Technique for Prediction of Post-traumatic Epilepsy in Individual Subjects after Traumatic Brain Injury	DOD	24,839
15-165	Voziyanov, Yuri		Correction of Mutations Using Flp-TAL and Cre-TAL Recombinases	NIH	357,834
15-166	Selmic, Rastko		Cognitive Prognostics Engine (CProg-Engine) for Autonomous and Complex Systems	DOD/STTR	34,322
15-167	Liu, Pei	Hughes, Susan	Assessing Current Status of Nutrition and Wellness Components in Child Care Centers Participating in the CACFP	National Food Service Management Institute	16,165
15-168	Adams, Josh		Maintaining Eastern Cottonwood Clones for In Vitro Processing for Futuragene© 2015	Futuragene	5,502
15-169	Alam, Shaurav	Iseley, Tom	Development of a Web-based Searchable tool of Renewal Technology for Water Distribution System in Each Region of the U.S.	Battelle Memorial Institute	24,963
15-170	Selmic, Rastko		Integrated Monitoring AWAREness Environment (IM-AWARE)	DOD/STTR	34,322
15-171	Arumugam, Prabhu		Development of a Novel Nanodiamond-enabled Electrochemical Oxidation Technology for Oil Spill Remediation	Gulf Research Program Early-Career Research Fellowships	74,999
15-172	Moore, Mary		Novel Environmentally Responsive Nanocarriers for Dual Controlled Drug Release of Diallyl Trisulfide and Sodium Nitrite Orally	LBRN	60,000
15-173	Menkulasi, Fatmir		Rehabilitation of Deteriorated Timber Piles using Fiber Reinforced Polymer (FRP) Composites	LTRC	149,916
15-174	Mills, David		Anti-Microbial Medical Device Coatings that Reduce Infection and Promote Healing	LBRN	0
15-175	Radadia, Adarsh		Evaluation of Impedance Biosensors as a Diagnostic Test For Determining the Prevalence of Rickettsia Felis in Cat Fleas	LBRN	60,000
15-176	Alam, Shaurav	Iseley, Tom	Evaluation of Resin Impregnated Fiberglass Liner Material used in CIPP Application Following ASTM D2992-12 Procedure	Applied Felts Inc. /Genedge Alliance	19,886
15-177	Moore, Mary C.		Novel Environmentally Responsive Nanoparticles for Dual Controlled Drug Release of Diallyl Trisulfide and Sodium Nitrite Orally	LSUHSC/PAC	25,000
15-178	lasemidis, Leon		Closed-loop Thalamic Neuromodulation in Genetic Generalized Epilepsies	NIH	46,632
15-179	Newman, Jamie		Manipulation of Notch Signaling Pathway in Treatment of Estrogen Independent Breast Cancer	LBRN	11,134
15-180	O'Neal Mike	Karim, Md	Determining Whether Secure Code has been Tainted Using a 'Need based' Approach	DARPA	3,352,894
15-181	Alam, Shaurav	Iseley, Tom	Experimental Evaluation of Structural Liners Subjected to Seismic Loading	Sanexen Environmental Services Inc.	67,710

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 9)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 8 . . .)

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
15-182	Wang, Jay		Predictions of Anti-Erosion Ability and Sediment Accretion Capability of Vegetation Spartina Alterniflora Established on Dredged Soils	Coastal Protection & Restoration Authority of Louisiana	94,132
15-183	Wick, Collin		Advanced Nanoporous Materials at the Nexus of Water, Energy, and Food Technologies	NSF	278,206
15-184	Hollins, Bryant		A Robust Method for Enriching and Quantifying Carbonylated Proteins	NIH	314,715
15-185	Moore, Mary C.		Development of Responsive Proactive Biopolymer Hydrogel to Promote Chronic Wound Healing	LBRN GS Program	11,134
15-186	O'Neal, Patrick		Optically-based Clinical Measurements of Edema Supporting CHF-related Pharmacological Interventions		0
15-187	Wasiuddin, N.		Apical Reentry Test Plan	Century Link	23,215
15-188	Lvov, Yuri		Synergistic Use of Particulates and Biopolymers in Oil Spill Response Strategies	US Dept. of the Interior Bureau of Safety & Environmental Reinforcement	0
15-189	Lvov, Yuri		Natural Tubular Clays as Synergistic Dispersants	Gulf of Mexico Research Initiative RFP-V	300,000
15-190	Jaganathan, Arun	Weiss/ Simicevic	Novel Strategy for Condition Monitoring, Diagnostic and Prognostics in Rotating Machinery	NSF	399,173
15-191	Montes, Carlos		Study on the Solidification Potential of Brine from Wastewater and Impacted CCPs	Alchemy Geopolymer Solutions	15,000
15-192	Moore, Arden		Understanding the Processing-Structure-Property Relationships in Hierarchical Hexagonal Boron Nitride Nanomaterials	NSF	254,003
15-193	Tewari, Sanjay		Water Purification and Desalination with Enhanced Membrane Capacitive Deionization	Department of the Interior, Bureau of Reclamation, Denver, Colorado	89,453
15-194	Iasemidis, Leon	DeCoster/ Murray	RII Track-2 FEC: Understanding the Brain: Micro and Macro Dynamics of Seizure and Memory Networks	NSF	6,000,000
15-195	O'Neal, Patrick	Sherer/Evans	Non-invasive Real-time Optical Control of Drug Exposure	NIH	299,979
15-196	Crews, Niel		Phase II SBIR: Microfabrication Assistance, Characterization Testing, and Metrology for Radiance Prototypes	Radiance Technologies/DOD	2,000
15-197	Menkulasi, Fatmir		Development of a Sustainable UHPC Bridge Deck for Movable Bridges	LTRC	174,926
15-198	Barrow, Katie		Southern pride: Assessing the Lived Experiences of LGBT Persons Residing in Louisiana	American Psychological Foundation	14,979
15-199	Carpenter, Jenna	Wasiuddin/ Wang	Southern Plains Transportation Center - First Eight Months of Year Three	OSTR DOT	92,967
15-200	Romer, Braden	Szymanski/ Tims/Vincent	Sport Science Discovery Programs	BoR/LASiP	0

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 10)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 9 . . .)

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
15-201	Moore, Arden		SWaP-sensitive Energy Solutions via Novel Hierarchical Nanomaterials	ONR	399,128
15-202	Ramachandran, Ramu	Wick, Collin	Examination of Intellectual Property Developed by Advano, LLC for Scaled-up Manufacturing of Functionalized Silicon Nanoparticles	New Louisiana Angel Fund, LLC	4,257
15-203	McFadden, Patti	Books, Paula	Sexual Health: Raising STI Awareness	Lincoln Health Foundation	4,800
15-204	Wilson, Chester		DILTON	AFRL	50,712
15-205	Schillinger, Don		Louisiana College of Education	NSF	96,706
15-206	Wick, Collin	O'Neal, Patrick	The Effect of Surfactant Composition on Oil-in-water Micelle Size Distribution, Dispersant Effectiveness, and Critical Micelle Concentration	Gulf of Mexico Research Initiative	531,037
15-207	Wang, Shengnian		NOVEL MESOPOROUS CARBON/ZEOLITES HYBRID CATALYST FOR DIRECT SYNTHESIS OF GASOLINE RANGE	ACS Petroleum Research Foundation	110,001
15-208	Lvov, Yuri		Natural Nanotube Clay Carriers for Enhanced Catalysis	ACS Petroleum Research Foundation	110,000
15-209	Swanbom, Mike	Tims, Heath	Cyber Discovery 1.0	DHS/CIC	206,250
15-210	Mhire, Jeremy	Tims, Heath	Cyber Discovery 2.0	DHS/CIC	164,910
15-211	Sherer, Eric	Cahoy, Dexter	Receipt of Colorectal Cancer Surveillance Care and Survival	NIH	132,704
15-212	Radadia, Adarsh		Evaluation of Impedance Biosensors as a Diagnostic Test For Determining the Prevalence of Rickettsia Felis in Cat Fleas	LBRN	60,000
15-213	Arumugam, Prabhu		Development of a Novel Electrochemical/Photochemical/Biological Technology for Oil Spill Waste Water Remediation	GoMRI	1,081,878
15-214	Wasiuddin, N.		Ductility of Extreme-Temperature Asphalt Binders by Shear and Extensional Rheology	LTRC	30,000
15-215	Gibson, Mark		Louisiana Forest Products Development Center at Louisiana Tech University	LSU Ag. Center	28,066
15-216	Wang, Jay	Patterson, W.	Potential Impact of Oiling on the Anti-erosion Ability of Spartina Alterniflora Established on Dredged Soils in Louisiana Coastal Area	GoMRI	542,130
15-217	Menkulasi, Fatmir		Development of a Composite Concrete Bridge System for Short and Medium-Span Bridges	CCPI	509,774
15-218	Iasemidis, Leon		Anesthetic Depth Monitor Senior Design Formal Project Proposal	The Biomedical Research Foundation	14,000
15-219	Moore, Mary C.		Responsive Nanocarriers for Dual Controlled Release of Vasodilator Therapeutics	LBRN/LaCATS	54,019
15-220	Moore, Arden		Batch Fabricated Multifunctional Thermal Sensors for High Temperature Propulsion Testing Environments	NASA	40,000
15-221	Alam, Shaurav	Iseley, Tom	Burst Pressure Tests of CIPP Liners AOC, LLC/National Liner	AOC LLC / National Liner	6,100

(*Missing File #'s denote withdrawn proposals)

(Cont'd on page 11)

PROPOSALS SUBMITTED (CONT'D FROM PAGE 10 . . .)

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
15-222	Alam, Shaurav	Hall, David	Burst Pressure Tests of CIPP Liners/ Insituform	Insituform Technologies LLC	22,570
15-223	Dua, Purna		A Predictive Modeling Framework for Studying Disparity in Colorectal Screening	LBRN LaCATS	76,779
15-224	Dua, Sumeet		A Data Fusion Based Multi-scale Imaging Analytics for Enhanced Treatment of Cerebral Aneurysm Rupture and Recurrence	LBRN LaCATS	76,182
15-225	Talton, Carolyn	Vincent, Lindsey K.	Project Math IDEA	BoR/LaSiP	160,336
15-226	Wilson, Chester		Nanostructured Doped Polymers for Aerospace Shielding Applications/N. Groden	LaSPACE/GSRA	5,000
15-227	Wilson, Chester		AUTONOMOUS SYSTEM FOR MOON DRILLING/K. Brown	LaSPACE/GSRA	5,000
15-228	Lvov, Yuri	Vincent, Lindsey K.	Making things Small	BoR/LASiP	166,785
15-229	Bishop, Thomas		NSF CC*DNI DIBBs: BigLEGO: Developing a Distributed Data Infrastructure and big data analysis software tools for Compute and Data Intensive Scientific Applications	NSF	500,000
15-230	Manning, Libby	Kimbell-Lopez, K.	Assessment Literacy: Data-Based Instruction	BoR/LASiP	167,027
15-231	Hollins, Bryant		A Novel Small Animal Sleep Deprivation Method	LaSPACE/GSRA	5,000
15-232	Johnston, Kathleen	Vincent, Lindsey K.	Enhancing STEM Content and Pedagogy through Dual Enrollment Programs	BoR/LASiP	157,763
15-233	Montes, Carlos		Development of Lunar Regolith Based Geopolymer Concrete in Vacuum Conditions	LaSPACE/GSRA	5,000
15-234	Wasiuddin, N.		Top Coat Material Testing	Century Link	16,222
15-235	Crittenden, Kelly	Schillinger, Don	Project FUEL-Fostering Understanding & Engagement in Learners	BoR/LASiP	108,335
15-236	Sheets, Tilman	Deselles, M.	Solution Architect Research Project	Psychology	100,000
15-237	Adams, Heidi	Ross, William	Use of Bats to Reduce Nantucket Pine Tip Moth Densities in Young Loblolly Pine Plantations	La. Dept. of Wildlife & Fisheries	20,045
15-238	Gourd, Jean		High School A.P. Computer Science Curriculum	CIC	37,443
15-239	DeSelles, Marita		Dell Safety Survey	Dell	9,300
15-240	Murray, Teresa		Investigating the Annexin A1-Formyl Peptide Receptor Pathway to Develop Innovative Anti-stroke Drugs	LSUHSC/PAC	4,300
15-241	Schillinger, Don	Vincent, Lindsey K.	COE/SciTEC/CIC STEAM Curriculum Alignment	CIC	28,937
15-242	Sherer, Eric	O'Neal, Patrick	A Nano-micelle Colloidal Long-term Perfusate for Hypovolemic Shock	NIH	92,089
15-243	Adams, Josh		Role of Loblolly Pine (Pinus taeda) Apoplastic Composition in Regulating Ecophysiological and Growth Responses to Environmental Stressors	AFRI/USDA	499,212

(*Missing File #'s denote withdrawn proposals)

OUTSTANDING RESEARCH SUMMARIES

LIBERAL ARTS:

Dr. David M. Anderson was co-Editor of *The Hank Williams Reader*, published in 2014 by Oxford University Press.

Dr. V. Elaine Thompson had her book *Clinton, Louisiana: Society, Politics, and Race Relations in a Nineteenth Century Southern Small Town* published in 2014 by University of Louisiana at Lafayette Press.

Dr. Andrew C. McKeivitt, will have a chapter called "Watching War Made Us Immune!: The Popular Culture of the Wars," in *Understanding the U.S. Wars in Iraq and Afghanistan*, Edited by Beth Bailey & Richard Immerman (New York University Press, 2015).

DISSERTATION HIGHLIGHTS

Doctor of Philosophy**College of Engineering & Science (December 2014)**

Dolgan, Konstantine (major advisor, Dr. Henry Cardenas)- "Electrochemical Treatment of Fatigue Cracks";

Islam, MD Rashedul (major advisor, Dr. Erez Allouche)- "Creep and Shrinkage Behavior of Fly Ash Based Geopolymer Concrete" ;

Magaña, Isidro Bernard (major advisor, Dr. Patrick O'Neal)- "Improving Practices in Nanomedicine Through Near Real-time Pharmacokinetic Analysis"

FUNDING AGENCY ANNOUNCEMENTS

Louisiana EPSCoR will no longer be funding the Pfund program. However, the Board of Regents Support Fund, through their R&D program, will be offering something similar to the Pfund program. The RFP relating to this should be released sometime in July.

Requests for Proposals

- USDA (agriculture, livestock, rural grants): <http://nifa.usda.gov/page/search-grant>;
- Grants.gov (most federal agencies, use key-word search to find application & rfp): <http://www.grants.gov/>;
- National Science Foundation (NSF), (special programs, program areas, links to recently announced rfps): <http://www.nsf.gov/funding/>;
- NSF Graduate Fellowship Research Program (extremely diverse and not only for traditional sciences): <https://www.nsfgrfp.org/>;
- NSF Social, Behavioral and Economic Sciences (SBE) funding opportunities: http://www.nsf.gov/funding/pgm_list.jsp?org=SBE

For more information on additional funding opportunities, go to: http://research.latech.edu/resources/funding_opportunities.