

Louisiana Tech University



# BREEZE BULLETIN

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

*We only think when we are confronted with problems.*

*John Dewey  
(1859-1952, American philosopher, educator)*

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## 2015-16 TECH FRINGE/F&A RATES

Faculty/Unclassified/Post Doc: 47.75%  
 Civil Service: 57.65%  
 Temporary/Part-time: 9.98%  
 DROP: 20.45%  
 Federal F&A (SW): 49.40%

Click the following link to download as a pdf file: [http://research.latech.edu/files/documents/2015-16\\_fringe\\_rates.pdf](http://research.latech.edu/files/documents/2015-16_fringe_rates.pdf).

## OUR IN-HOUSE WORKSHOPS

For a complete list of in-house workshops, go to [http://research.latech.edu/resources/training\\_workshops/latech\\_workshops](http://research.latech.edu/resources/training_workshops/latech_workshops).

- **June 1, 2-3pm, WT1527** - Grant Administration - Courtney Jarrell;
- **July 12, 2-3pm, WT1535** - BoR Support Fund Overview;
- **August 16, 2-3pm, WT1535** - Grants.gov

## Research Excellence at Louisiana Tech

The Louisiana Tech Research Council was pleased to recognize outstanding faculty and student researchers throughout the campus at the 2016 Research Awards Reception on April 25, 2016. The Research Council of Louisiana Tech's purpose is to coordinate the research activities of the University, to strengthen interdisciplinary and inter-institutional research, to serve as a vehicle for discussion of problems involving the administration of research projects and grants, to recommend to the University administration policies concerning research and other sponsored programs, and to foster, stimulate, and advance the research effort of Louisiana Tech University.

The Research Council expresses admiration and appreciation for the accomplishments of the following individuals:

- **Outstanding Student Researchers** (from Student Research Symposium, held February 25, 2016):
  - ⇒ Outstanding Poster Presentation  
**Kaitlyn Heiden, Emily Byley, Peyton Percle, Erin Nevala**
  - ⇒ Outstanding Undergraduate Oral Presentation  
**Rachel Hegab**
  - ⇒ Outstanding Graduate Oral Presentation  
**Erik Beadle, Abhishek Panchal**
- **Outstanding Faculty Researchers** (selected by each College):
  - ⇒ Applied and Natural Science  
**Dr. Jamie Newman**, Assistant Professor, Biological Sciences
  - ⇒ Business  
**Dr. Hani Mesak**, Professor, Marketing & Analysis
  - ⇒ Education:  
**Dr. Guler Boyraz**, Assistant Professor, Psychology & Behavioral Sciences
  - ⇒ Engineering and Science  
**Dr. Mark DeCoster**, Associate Professor, Biomedical Engineering
  - ⇒ Liberal Arts  
**Dr. Jefferson Walker**, Assistant Professor, Communication
- **Outstanding Innovator** (demonstrated by ROI, patents, licenses in past 3 years)
  - ⇒ **Dr. Yuri Lvov**, Professor, Chemistry and Physics
  - ⇒ **Dr. Arun Jaganathan**, Associate Professor, Civil Engineering
- **Outstanding Doctoral Advisor** (demonstrated by doctoral graduates in past 3 years)
  - ⇒ **Dr. Melinda Bryan**, Associate Professor, Speech and Audiology



## NEW GRANTS AWARDED

PI	Title	Funding Agency	\$ Awarded
David Mills	<i>3D Printing of Stem-Cell Tissue Matrices</i>	LSUHSC	12,500
Sanjay Tewari	<i>Corrosion Map for Metal Pipes in Coastal Louisiana</i>	LTRC	49,999
Jamie Newman	<i>Microtopographical Effects on Differentiation of Mouse Embryonic Stem Cells into Cardiomyocytes/Nehal Patel</i>	Sigma XI	887
Jamie Newman	<i>New Frontiers in Biomedical Research Seminar Series</i>	Lincoln Health Foundation	4,809
Shaurav Alam	<i>Development of Proof of Concept for Conducting Tests Alike Pickle Jar Test on Avanti Grout Material</i>	Avanti Intl.	6,683
<b>January 2016</b>			<b>Total: 74,878</b>
Tara Haskins	<i>Nursing Faculty Practice Proposal: Bienville Parish School System</i>	Bienville Parish School Board	2919
N. Wasiuddin	<i>Research on Reduced Cost Apical Solutions</i>	CenturyLink	25,533
Arun Jaganathan	<i>Robotic Mapping and Installation System for Subsurface Utility Relocation (Phase 2)</i>	DOT/Intelligent Automation	200,000
Marisa Orr	<i>CAREER: Empowering Students to be Adaptive Decision-makers</i>	NSF	518,155
<b>February 2016</b>			<b>Total: 746,607</b>
Jamie Newman	<i>Multiwell Plate Reader for Biological Sciences</i>	LBRN	44,507
Chester Wilson	<i>Inexpensive Bulk Manufactured Graphene for 3D Manufactured Space Components</i>	NASA/LSU/LASPACE	32,351
Leland Weiss	<i>Hydrogen Sulfide Detection using Nano-diamond Materials and Electrodes</i>	Innolyzer	1,830
Heath Tims	<i>Cyber Discovery 1.0</i>	DHS/CIC	69,100
Tom Iseley	<i>Association Management Services for BAMl</i>	BAMl	50,000
Jeremy Mhire	<i>AICS @ LaTech</i>	DHS/CIC	90,000
Carlos Montes	<i>Improvement of the Performance Characteristics of Geopolymer-based Proppant</i>	Alchemy Geopolymer	10,370
N.Wasiuddin	<i>Field Performance Evaluation of Apical Solutions in Minnesota</i>	CenturyLink	2,000
Rastko Selmic	<i>Kalman Filter For Tracking Hand Gestures</i>	NASA/LSU/LASPACE	35,000
Stan Napper	<i>Cooperative Endeavor Agreement for IBM</i>	Louisiana Economic Development	1,000,000
Mark Gibson	<i>McIntire-Stennis Cooperative Forestry Research Program - 2016</i>	USDA/McIntire Stennis	48,354
<b>March 2016</b>			<b>Total: 1,383,512</b>
Shaurav Alam	<i>Resistance to Short-Time Hydraulic Pressure Test of Sandwiched Construction FRP Pipes</i>	QuakeWrap, Inc.	3,050
Chester Wilson	<i>(Darrian) Nanomanufactured Graphene Based Composites for Space/Aerospace</i>	NASA/LSU/LASPACE	6,000
Shaurav Alam	<i>Pickle Jar Testing of Sewer Manhole Coating Material</i>	SpectraShield	9,760
Shaurav Alam	<i>Testing of Sewer Manhole Coating Material</i>	SpectraShield	4,026
N.Wasiuddin	<i>Laboratory Evaluation of Early Field Performance of Apical System</i>	CenturyLink	24,523
P.Arumugam	<i>Evaluation of 3D-Printed Titanium Micropillars – Toward a Novel Electrochemical Nanoprobe Technology for Multi-analyte Brain Sensing</i>	NSF/BoR	25,000
Yuri Lvov	<i>Natural Tubular Clays as Synergistic Dispersants</i>	Gulf of Mexico Research Initiative/Tulane	287,500
Marisa Orr	<i>Expanding Access to and Participation in the Multiple Institution Database for Investigating Engineering Longitudinal Development</i>	NSF/Purdue	114,316
<b>April 2016</b>			<b>Total: 474,175</b>
			<b>Total YTD: \$10,202,364</b>

## PROPOSALS SUBMITTED

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$ Requested
16-190	Arumugam, Prabhu	Murray, Teresa	All-diamond Microelectrodes for Multi-analyte Brain Neurochemical Sensing	NIMH	380,986
16-191	Crittenden, Kelly	Turner, Galen	ESP: Exploring the role of Makerspaces on High School Campus through One Day Builds	NSF	549,051
16-192	Orr, Marisa	Apter-Deselles, M.	IUSE: Collaborative Research: Enhancing Problem- and Project-Based Facilitation in First-Year Engineering Instructors	NSF	325,278
16-193	Ellis, Selwyn	Syler, Rhonda	Cyber Security Training for Teachers	GenCyber	98,604
16-194	Alam, Shaurav	Iseley, Tom	Pickle Jar Test of Sewer Liner - Grout Materials - PART A	Milliken	10,980
16-195	Alam, Shaurav	Iseley, Tom	Pickle Jar Test of Sewer Liner - Grout Materials - PART B	Milliken	3,660
16-196	Alam, Shaurav	Iseley, Tom	Development of Proof of Concept for Conducting Tests Alike Pickle Jar Test on Avanti Grout Material	Avanti Intl.	6,683
16-197	Adams, Joshua		Maintaining Eastern Cottonwood Clones for In Vitro Processing for Futuragene© 2016	Futuragene Co.	4,587
16-198	Clay, Natalie		Unraveling the Environmental, Biological, and Climatological Effects on Carbon Mineralization Rates of Woody Decomposition Following Bark Beetle Disturbances	DoEnergy	125,717
16-199	Iasemidis, Leonidas	DeCoster/ Murray, T.	RII Track-2 FEC: Probing and Understanding the Brain: Micro and Macro Dynamics of Seizure and Memory Networks	NSF	6,000,000
16-200	Tewari, Sanjay		Utilization of Coal/bagasse Ash in Biologically Activated Carbon for the Removal of Pollutants from Industrial Wastewater ...	Environmental Research & Education Foundation	120,000
16-201	Crews, Niel		MRI: Acquisition of an Environmental Scanning Electron Microscope for Shared Use	NSF	409,956
16-202	Haskins, Tara		Nursing Faculty Practice Proposal: Bienville Parish School System	Bienville Parish	2,919
16-203	Murray, Teresa		EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations (RII Track-2 FEC)	NSF	0
16-204	Bardaweel, Hamzeh	Jaganathan/ Weiss	H-Shock: Hybrid Shock-Absorber Electromagnetic Energy Harvester	DOE	222,024
16-205	Tewari, Sanjay		Corrosion Investigation and Revitalization of Buried Copper Cables	CenturyLink	48,358
16-206	Clay, Natalie		Quantifying the Role of Biological Interactions in Woody Decomposition Processes	NSF	0
16-207	Newman, Jamie		The Role of Mediator in Regulating Mediator in Maintaining and Differentiating Human Mesenchymal Stem Cells	LBRN	100,000
16-208	Wilson, Chester		(Darrian) Nanomanufactured Graphene Based Composites for Space/Aerospace	NASA/EPSCoR/ MRS	6,000
16-209	Wilson, Chester		(Riley) Microscale Radiological, Environmental, and Biological Monitoring Microdevices for NASA	NASA/EPSCoR/ MRS	6,000

(\*Missing File #'s denote withdrawn proposals)

## PROPOSALS SUBMITTED (CONT'D FROM PAGE 3 . . .)

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
16-210	Giorno-McConnell, Rebecca		Spore Outer Structures: Contribution to Germination Heterogeneity	LBRN/INBRE/NIH	100,000
16-211	Moore, Arden		Understanding the Processing-Structure-Property Relationships in Hierarchical Hexagonal Boron Nitride Nanomaterial Composites	NSF	249,940
16-212	Wasiuddin, Naziuddin		Research on Reduced Cost Apical Solutions	CenturyLink	25,533
16-213	Wilson, Chester		Nanostructured Antenna Material for Large Bandwidth Big Data Transmission	DOD	100,125
16-214	Iasemidis, Leonidas	DeCoster/ Murray/ Evans/ Arumugam/ Vlachos	RII Track-2 FEC: Probing and Understanding the Brain: Micro and Macro Dynamics of Seizure and Memory Networks	NSF/BoR/EPSCoR	6,000,000
16-215	Lvov, Yuri		Metallo-ceramic Nano/micro/macro Manufacturing Based on Clay Nanotubes.	NSF/BoR/EPSCoR	25,000
16-216	Montes, Carlos		Utilization of Geopolymer Concrete in Solidification/Stabilization of Sorbent Impacted Fly Ash, Power Plant Wastewater Treatment Solids and Other CCPs	Electric Power Research Institute	30,640
16-217	DeCoster, Mark		NSF-NCS CORE+ Supplement Request for Existing EAGER Award	NSF	51,000
16-218	Arumugam, Prabhu		Evaluation of 3D-Printed Titanium Micropillars – Toward a Novel Electrochemical Nanoprobe Technology for Multi-analyte Brain Sensing	BoR/EPSCoR/CIMM	24,900
16-219	Wang, Shengnian		Stitched Hierarchical Nanofiber Hybrid Catalyst for GTL Process	NSF	299,985
16-220	Newman, Jamie		Characterization of Contractility in Embryonic Stem Cell-Derived Cardiomyocytes	LBRN Summer Research	7,500
16-221	Whitaker, Robert	Newman/ Mhire	Cultivating an Ethical Culture for Personalized Medicine	NSF	253,728
16-222	Poh, Scott		Effects of Activated Macrophages Response in Inflammation by Cell Penetrating Peptides	LBRN	19,000
16-223	Caldolera-Moore, Mary		In Vitro Characterization of PH Responsive Genipin-Chitosan Hydrogel for Diabetic Foot Ulcer Treatment	LBRN	7,500
16-224	Murray, Erica		3D Printing of Pt-Au Electrodes for NOx	BoR/NSF/CIMM	25,000
16-225	Caldolera-Moore, Mary		NIST Summer Undergraduate Research Fellowship (SURF) Program: Gaithersburg - Rachel Hegab	NIST	9,500
16-226	Moore, Arden		High Thermal Conductivity Polymer Composites at Low Loading via Foam-like Hexagonal Boron Nitride Nanomaterial Fillers	NineSigma	92,286
16-227	Wang, Shengnian	Wick/ Ramachandran	SNM: Scalable Manufacturing of Composite Electrodes for Lithium-Sulfur Batteries	NSF	1,280,000
16-228	Radadia, Adarsh		A Microelectrofluidic System for Neurological Disease Research	LBRN	19,000
16-229	Bardaweel, Hamzeh	Jaganathan, Arun	Non-Linear Vehicle Vibration Harvesting for Electric Power Generation and Efficiency Enhancement	DOE/EERE	600,000

(\*Missing File #'s denote withdrawn proposals)

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

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
16-230	Mainardi, Daniela	Murray, Erica	Designing NOx Gas Sensor Materials with Improved Sensitivity and Selectivity	NSF	432,890
16-231	Radadia, Adarsh		SusCheM: Directed Covalent Assembly of Nanodiamonds into Films for MEMS Applications	NSF CIMM MEP	343,411
16-232	Caldolera-Moore, Mary	Derosa, Pedro	Collaborative Research: Experimental-Computational Design of Nanoscale Hydrogel Materials for Biomedical Applications	NSF	530,000
16-233	Orr, Marisa	Evans/Sherer/Ming	RFE: Mathematics Skills Assessments	NSF	230,747
16-234	Jaganathan, Arun		Advancement of Elastic Guided Wave Inspection of Buried Infrastructure	NSF CMMI (DCSD)	208,053
16-235	Arumugam, Prabhu		Carbon Nanotube–nanocrystalline Diamond Hybrid Electrodes: A Route for Development of a Highly Sensitive Neurochemical Microsensor	BoR/TGEF	1,200
16-236	Hollins, Bryant	Cahoy, Dexter	A Robust Microfluidic Method for Detecting Carbonylated Proteins at Low Levels in Biological Samples	NIH	305,677
16-237	Weiss, Leland	Arumugam, Prabhu	Hydrogen Sulfide Detection using Nano-diamond Materials and Electrodes	Innolyzer	1,830
16-238	Arumugam, Prabhu		A Novel Ultrananocrystalline Diamond Microelectrode for Hydrogen Sulfide Sensing – Toward Reliable Chemical Sensor Technologies for Cardiovascular Disease Biomarkers	LSUHSC/PAC	24,997
16-239	Newman, Jamie	Caldolera-Moore	Optimization of Cardiac Muscle Generation for Replacement of Damaged or Weakened Tissue	LSUHSC/PAC	25,000
16-240	Bardaweel, Hamzeh	Jaganathan/Weiss	Scalable Nonlinear Broadband Electromagnetic Energy Harvester	NASA John C. Stennis Space Center	50,000
16-241	Dua, Sumeet		LBRN Admin Core	LBRN	63,688
16-243	Bardaweel, Hamzeh		Teaching and Technology: An eLearning Innovation Grant Program	BoR	8,800
16-244	Dua, Sumeet		Measurement of Nitric Oxide and Hydrogen Sulfide Production by Endothelial Cells under Flow Pre-specified Condition	LSUHSC/PAC	25,000
16-245	Barrow, Katie		LBRN Biomedical Data Mining and Biostatistics (BDMB) Subcore	LBRN	57,952
16-246	Radadia, Adarsh		Partnering with Communities of Faith to Build Sexual Health Awareness	Lincoln Health Foundation	47,575
16-247	Vincent, Lindsey		Trans Endothelial Measurements of Cytomegalovirus Infected Monocyte Invasion Using Field-Effect Transistor Amplified Impedance Spectroscopy	LSUHSC/PAC	25,000
16-248	Hollins, Bryant		Microfluidic Enrichment of Nitrosylated Proteins Using Surface-immobilized Gold Nanoparticles	LSUHSC/PAC	5,000
16-249	Mhire, Jeremy		AICS @ LaTech	CICS	90,000
16-250	Iseley, Tom		Association Management Services	BAMI	50,000

(\*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	\$
16-251	Tims, Heath	Mhire, Jeremy	Cyber Discovery 1.0	CICS	69,100
16-252	Vincent, Lindsey	Schillinger, Don	ICORE Technology PD for Formal Educators	Jackson State University/US Dept of Edu	67,000
16-253	Montes, Carlos		Improvement of the Performance Characteristics of Geopolymer-based Proppant	Alchemy Geopolymer Solutions	10,370
16-254	Wasiuddin, Nazimuddin		Field Performance Evaluation of Apical Solutions in Minnesota	CenturyLink	2,223
16-255	Madden, Diane	Campbell, Chris	WET-PreST: Water Education Training for Pre-Service Teachers	LEEC	2,484
16-256	Evans, Katie		Preparation for Industrial Careers in the Mathematical Sciences (PIC Math) Application	Mathematical Association of America	5,000
16-257	Caldolera-Moore, Mary		In Vitro Characterization of pH Responsive Proactive Chitosan Hydrogels for Chronic Wound Treatment	Sigma XI	898
16-258	Mills, David		3D Printing of Customized Implants for Cleft Lip, Palate and Orofacial Deformities and Defects	NIH	255,057
16-259	Lantz, Melanie		The Role of White Therapist Factors in Psychotherapy Process and Outcome with Black/African American Clients	Society for the Advancement of Psychotherapy	10,000
16-260	McDonald, John		Fischer-Tropsch Catalyst Development	American Strategic Innovations	663,404
16-261	Napper, Stan		Cooperative Endeavor Agreement for IBM	LED/IBM	1,000,000
16-262	Adams, Heidi		Influence of Forest Management Techniques on Natal Den Site Selection by Female Louisiana Black Bears	Louisiana Department of Wildlife and Fisheries	54,563
16-263	Adams, Joshua		Using Physiological Parameters to Refine Estimates of Short Rotation Poplar Performance, Productivity and Ecosystem Services under a Variety of Edaphic Conditions	NIFA	27,276
16-264	Mills, David		In-vitro Study of a Bioactive Clay/calcium Phosphate Bone Composite for Bone Repair	Osteo Science Foundation	91,715
16-265	Norris, Dave		Arkansas-Louisianan Multimodal Economic Corridor (ArkLaMEC) Initiative	UA - Little Rock	45,000
16-266	Kordal, Rich	Cahoy, Dexter	Data Analysis and Decision Support Using Advanced Text Analytics and Machine Learning	BoR/NASA	74,995
16-267	Maness, Teresa		Breeding Origins of Henslow's Sparrows Wintering in Louisiana	LDWF	61,123
16-268	Alam, Shaurav	Iseley, Tom	Resistance to Short-Time Hydraulic Pressure Test of Sandwiched Construction FRP Pipes	QuakeWrap Inc.	3,050
16-269	Caldolera-Moore, Mary		Novel Environmentally Responsive Nanoparticles for Dual Controlled Drug Release of Diallyl Trisulfide and Sodium Nitrite Orally - Renewal	LSUHSC/PAC	25,000
16-270	Arumugam, Prabhu		A Novel Ultrananocrystalline Diamond Microelectrode for Hydrogen Sulfide Sensing – Toward Reliable Chemical Sensor Technologies for Cardiovascular Disease Biomarkers	LSUHSC/PAC	24,998

(\*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	\$
16-270	Arumugam, Prabhu		A Novel Ultrananocrystalline Diamond Microelectrode for Hydrogen Sulfide Sensing – Toward Reliable Chemical Sensor Technologies for Cardiovascular Disease Biomarkers	LSUHSC/PAC	24,998
16-271	Alam, Shaurav	Iseley, Tom	Pickle Jar Testing of Sewer Manhole Coating Material	SpectraShield	9,760
16-272	Alam, Shaurav	Iseley, Tom	Testing of Sewer Manhole Coating Material	SpectraShield	4,026
16-273	Newman, Jamie	Caldolera-Moore	Optimization of Cardiac Muscle Generation for Replacement of Damaged or Weakened Tissue	LSUSHC/PAC	25,000
16-274	Wilson, Chester	Keith-Vincent, Lindsey	Electroplating Carbon and Iron Nanoparticles to Create an Alloy to be Used in 3-D Selective Laser Machining	BoR/SURE/EPSCoR	5,000
16-275	Wilson, Chester	Keith-Vincent, Lindsey	Mills: Darkening Aluminum Feedstock with Graphene for SLM Manufacturing	BoR/SURE/EPSCoR	5,000
16-276	Hollins, Bryant		The Effect of Printing Orientation, Infill Percentage, and Shell Layers on the Mechanical Strength of 3D Printed PLA Structures	BoR/SURE/EPSCoR	5,000
16-277	Wilson, Chester	Keith-Vincent, Lindsey	Hicks-Lightweight finned SLS structures for Bone cement reinforcement	BoR/SURE/EPSCoR	5,000
16-278	Vincent, Lindsey		LAPQI	Louisiana Dept. of Education/US Dept. of EDU	144,000
16-279	Weiss, Leland		NSTXL Internal Engine Thermal Capture for Power Production	ONR	0
16-280	Moore, Arden		SURE: Advanced Materials and Manufacturing Research for Thermal Systems Applications	BoR/SURE/EPSCoR	5,000
16-281	Turner, Galen	Keith-Vincent/Tims/Evans	Removing Barriers-Building Communities Which Have Collective Impact Beyond Traditional Boundaries	NSF	0
16-282	Dai, Weizhong		Fred Moxley Fellowship	Oak Ridge Institute for Science and Education	17,000
16-283	Wilson, Chester	Keith-Vincent, Lindsey	3D Laser Machined Nitinol for Stent Manufacture	BoR/SURE/EPSCoR	5,000
16-284	Wasiuddin, Nazimuddin		Laboratory Evaluation of Early Field Performance of Apical System	CenturyLink	24,523
16-285	Wilson, Chester	Keith-Vincent, Lindsey	Cobalt Feedstock for 3D Welding	BoR/SURE/EPSCoR	5,000
16-286	Wilson, Chester	Keith-Vincent, Lindsey	SLS Printed Catalyst for Natural Gas Dry Reforming	BoR/SURE/EPSCoR	5,000
16-287	Liu, Pei		Nutrition and Dietetics	Produce for Better Health Foundation	4,987
16-288	Vessel, Amy	Basinger, Dawn	Ouachita Parish Believe and Prepare Cohort 3	Ouachita Parish School Board	16,000
16-289	Moore, Arden		High Reliability Infrared Optics-Based Warning Systems for Overheight Impact Avoidance	LTRC	143,631

(\*Missing File #'s denote withdrawn proposals)

**ADDITIONAL GRANT FUNDING FOR EXISTING AWARDS**

- Joshua Adams, *Maintaining eastern cottonwood clones for in vitro processing for Futuragene© 2016*, FuturaGene \$4,587;
- Daniella Mainardi, *CREST Bioenergy Center*, NSF/North Carolina Agricultural & Technical State Univ. \$61,108;
- Carlos Montes, *Utilization of Geopolymer Concrete in Solidification/Stabilization of Sorbent Impacted Fly Ash, Power Plant Wastewater Treatment Solids and Other CCPs*, Electric Power Research Institute \$30,640;
- John McDonald, *Fischer-Tropsch Catalyst Development*, American Strategic Innovations \$\$663,404.

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**NSF/SOCIAL PSYCHOLOGY FUNDING OPPORTUNITY**

NSF Social Psychology (PD 98-1332)

Full Proposal Target Date: July 15, 2016 (July 15 Annually Thereafter)

Full Proposal Target Date: January 17, 2017 (January 17 Annually Thereafter)

**SYNOPSIS**

The Social Psychology Program at NSF supports basic research on human social behavior, including cultural differences and development over the life span.

Among the many research topics supported are: attitude formation and change, social cognition, personality processes, interpersonal relations and group processes, the self, emotion, social comparison and social influence, and the psychophysiological and neurophysiological bases of social behavior.

The scientific merit of a proposal depends on four important factors: (1) The problems investigated must be theoretically grounded. (2) The research should be based on empirical observation or be subject to empirical validation. (3) The research design must be appropriate to the questions asked. (4) The proposed research must advance basic understanding of social behavior.

For more information on additional funding opportunities, go to: [http://research.latech.edu/resources/funding\\_opportunities](http://research.latech.edu/resources/funding_opportunities) or contact Beth Free, Pre-Award Coordinator at 318-257-5075 or [bfree@latech.edu](mailto:bfree@latech.edu).

**DISSERTATION HIGHLIGHTS (WINTER 2016)****Pratik Adhikari, Kathmandu, Nepal**

BS (2010) Louisiana Tech University

Dissertation: "Improving Nano-Drug Delivery by Using Near-Real Time Sensing and Feedback"

Major Advisor: Dr. Patrick O'Neal

**Mungtra Chusilp, Khon Kaen, Thailand**

BE (2007) Chulalongkorn University, Bangkok, Thailand

MSE (2015) Louisiana Tech University

Dissertation: "Kinetic Energy Harvesting Mechanism for Vortex Drop Structures"

Major Advisor: Dr. Arun Jaganathan

**Ling Cui, Ruston**

BE (2009) Dalian Nationalities University, Dalian, China

MSE (2014) Louisiana Tech University

Dissertation: "Impedance Characterization of YSZ Based NOx Sensors"

Major Advisor: Dr. Bala Ramu Ramachandran

**Yingbo Zu, Jilin City, China**

BE (2006) Jilin University, Jilin, China

MSE (2011) Louisiana Tech University

Dissertation: "Micropillary Array Electroporation to Enhance Gene Delivery to Mammalian Cells for In Vitro Gene Delivery"