

Louisiana Tech University



BREEZE BULLETIN

Office of Sponsored Projects (<http://research.latech.edu/about/welcome>)

Opportunity dances with those who are ready on the dance floor.

*H. Jackson Brown Jr.
(American Author of "Life's Little Instruction Book" Series)*

TABLE OF CONTENTS

New Grants Awarded	2
Proposals Submitted	3-6
Winter 2017 Dissertations	7

2017-18 TECH FRINGE/F&A RATES

- Faculty/Unclassified/Post Doc: 49%
- Temporary/Part-time: 10.03%
- DROP: 21%
- Federal F&A (S/W): 49.40%

Go to the following link to download as a pdf file: http://research.latech.edu/files/documents/2017-18_La_Tech_Fringe_Rates.pdf.

OSP IN-HOUSE WORKSHOPS

To more efficiently accommodate busy schedules, the Office of Sponsored Projects can also hold workshops at the College level by request. Each workshop lasts approximately an hour. Please contact Beth Free (bfree@latech.edu) to reserve a seat in the workshops below or to discuss scheduling one at your college.

All workshops below will be held in Conf. Rm. 331 Keeny Hall.

April 10: 2-3pm - Funding Sources

May 8: 2-3pm- Life in the Fastlane System (NSF)

June 5: 2-3pm - New! Grants.gov & Workspace

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

New NIH Grant Submission Site: ASSIST

The Application Submission System & Interface for Submission Tracking (ASSIST) system is used to prepare and submit grant applications electronically to NIH and other Public Health Service agencies. Prior to using ASSIST, applicants should identify a Funding Opportunity Announcement (FOA) to which they'd like to apply. FOAs are posted in the NIH Guide for Grants & Contracts and/or in Grants.gov each of which has robust search capabilities. The FOA text will indicate whether ASSIST can be used to apply to that opportunity. You will need the FOA number (e.g., PA-15-987) to initiate an application.

Active Grants.gov and eRA Commons (NIH) credentials are required to prepare and submit applications using ASSIST.

ASSIST allows participants to do the following:

- Leverage current eRA Commons credentials to access ASSIST
- Delegate application preparation responsibilities to multiple users within and outside the applicant organization while maintaining appropriate access control and security
- Populate data from established eRA Commons profiles
- Run validations on federal-wide and agency business rules prior to submission
- Generate Table of Contents, headers, footers, page numbers, etc. automatically
- Print/Preview applications prior to submission in the format used by the agency

NEW GRANTS AWARDED

PI	Title	Funding Agency	\$ Awarded
Tewari/Palmer	<i>Combined Effect of Sea-level Rise and Coastal Land Subsidence – Identification of Critical Transportation Infrastructure At-risk in Coastal SPTC Region</i>	DOTD/Univ.OK	25,400
Turner/Chowriappa/ Leangsuksan	<i>Riverstone Software Contract</i>	Riverstone Software	120,000
Teresa Maness	<i>Integration of ESRM to Enhance STEM Teaching and Student Learning</i>	NSF/Univ. of Houston	7,500
Sumeet Dua	<i>Cyber Protection through Situational Awareness in Distributed Networks</i>	USAF/Clarkson	65,000
Shengnian Wang	<i>Synthesis of Hierachically Porous Zeolites by Solid-State Crystallization and Their Catalytic Properties</i>	ACS Petroleum Fund	110,000
Hegab/Dua/Gourd/	<i>SFS@LaTech: Cyber Engineers for our Future</i>	NSF	1,312,488
Melanie Gleason	<i>LDOE Clincial Residency Support Request</i>	LDE	10,000
November 2017		Total:	1,650,388
Eric McConnell	<i>Louisiana Forest Products Development Center at LA Tech University</i>	LSU Ag. Center	25,000
Bryant Hollins	<i>A Microfluidic platform for Enhancing Methylglyoxal Detection in Type 1 Diabetic Brain Tissue</i>	LSU/PAC	17,540
December 2017		Total:	42,540
Scott Poh	<i>The Use of Novel Electrochemical Sensors to Detect Oxidative Stress Generated by Macrophage in the Brain</i>	BRF	25,000
Iseley/Matthews J.	<i>Update to NUCA Trenchless Manual</i>	NUCA	9,000
Curtis McGiffin	<i>SRI through Cyber Innovation Center</i>	Air Force/CIC	15,462
Curtis McGiffin	<i>Support for Nuclear Deterrence and Escalation Workforce Development - NUC 300</i>	NSRI/CIC	30,541
Prabhu Arumugam	<i>Engineering a Reliable Ultrananocrystalline Diamond Electrode Technology Using 3D-Printed Titanium Substrates</i>	NSF/BoR	10,000
Erica Murray	<i>Effect of 3D Printing on Corrosion Characteristics of Stainless Steel</i>	NSF/BoR	10,000
Kasra Momeni	<i>A Phase-Field Model of Plastic Deformation for Multiscale Metal Forming Processes</i>	NSF/BoR	10,000
Kasra Momeni	<i>Fatigue in 3D Printed Structures: A Multiscale Approach</i>	NSF/BoR	10,000
Yuri Lvov	<i>Nanoclay Based Anti-Aging Drug Formulations</i>	BRF	25,000
Mary Caldolera-Moore	<i>Development and Testing of a Chitosan Formulation for 3D Printing for Wound Applications</i>	NSF/BoR	5,000
Mary Caldolera-Moore	<i>Combinatorial Material for Muscle Regeneration Applications</i>	NSF/BoR	5,000
Alam/Matthews	<i>Development of Proof of Concept for Determination of Longevity of Avanti Grout Material – Phase III</i>	Avanti International	3,899
Jeremy Mhire	<i>AICS 2018 Scenario Development</i>	DHS/CIC	62,000
Jeremy Mhire	<i>AICS @ LaTech (2018)</i>	DHS/CIC	90,000
January 2018		Total:	310,902
		2017-18 YTD	6,216,647



PROPOSALS SUBMITTED

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$ Requested
18-163	Wang, Jay		Assessment of the Resilience of the Coastal Marsh Spartina Alterniflora ...	La. Sea Grant/NOAA	75,000
18-164	Alam, Shaurav	Matthews, John	Pickle Jar Test of Ambient Cured Epoxy Material	IRSI	13,341
18-165	Moore, Arden		On-demand Radiative Heating and Cooling via Reversible, Spectra-selective Surface Emissivity Control	ASHRAE	99,212
18-166	Matthews, John	MooreA./ MatthewsE/ Momeni/ Drozdenko	Resiliency of Urban Drinking Water, Wastewater, and Storm Water Infrastructure	NSF	2,000,000
18-167	Alam, Shaurav	Eklund, Sven	ALFA - Artificial Lignin & Flyash Based Aggregate	EPA/SBIR/STTR	49,278
18-168	Cole, Marsha		Application of Ultrasound Probe Homogenization Technology to Increase Sucrose Recovery from Masecutes and Improve the Exhaustion of Final Molasses	American Sugar Cane League	68,403
18-169	Momeni, Kasra		Thermodynamic and Kinetic Databases and Data-driven Understanding and Design of Phase Transformations in 2D Materials	NSF	0
18-170	Momeni, Kasra		Data-Driven and Simulation Informed Synthesis of quasi-/2D Structures in Solution	NSF	0
18-171	Adams, Joshua		Maintaining Eastern Cottonwood Clones for In Vitro Processing for Futuragene(C) 2018	Futuragene	3,904
18-172	Alam, Shaurav	Matthews, John/Iseley, Tom	ASTM D790, D638 and D2990 Flexure and Tensile Creep Testing of SQUAREHAB Material	AQUAREHAB USA Inc.	23,001
18-173	Momeni, Kasra		Radiation-Induced Amorphization and Interfacial Phase Formation in Materials with Intermetallics for Light Water Reactors	US Dept. of Energy	800,000
18-174	Momeni, Kasra		Developing a High-Fidelity Design Framework for Selective Laser Melting Additive Manufacturing Processes: A Multiscale Modeling and Experimentation Approach	NSF	432,732
18-175	Madadi, Mahboubeh		Collaborative Research: Optimal Maintenance Planning Through Dynamic Sensor Fusion	NSF	128,015
18-176	Lynam, Joan	AdamsJ/ Wasiudden	Forest Byproduct Conversion to Asphalt Shingle Binder-Applied Research	USDA/Forestry	368,230
18-177	McGiffin, Curtis		SRI through Cyber Innovation Center	AFGSC	15,462
18-178	Sun, Chuanbing Shawn		Investigating Available State-of-the-Art Technology for Determining Needed Information for Bridge Rating Strategies	LTRC	67,152
18-179	Arumugam, Prabhu		Diamond-Carbide Interface Tuning with High Entropy Alloy Substrates for Electrochemical Wastewater Treatment	NSF	324,556
18-180	Jaganathan, Arun		Elastic guided wave tomography of buried concrete pipes using full-waveform inversion	NSF	315,819
18-181	Alam, Shaurav	Matthews, John	Investigating Available State-of-the Art Technology For Determining Needed Information for Bridge Rating Strategies	LTRC	99,992

(*Missing File #'s denote withdrawn /duplicate proposals)

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

* FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
18-182	Wang, Shengnian		Coupling Electrospinning and Foaming Processes to Manufacture Mesoporous Composite Nanofiber Mats	NSF	299,998
18-183	Bardaweel, Hamzeh		Harvesting Low Frequency Oscillations From NASA John C. Stennis Space Center Using a Novel Nonlinear Vibration Energy Harvesting Platform	NASA/Stennis Space Center	34,019
18-184	Mhire, Jeremy		AICS 2018 Scenario Development	DHS/CIC	62,000
18-185	Mhire, Jeremy		AICS @ LaTech (2018)	DHS/CIC	90,000
18-186	Drozdenko, Benjamin	MatthewsE/ Azmi/Chen	SCC: Empowering Small City Public Services with an IoT-based Sensor Network	NSF	0
18-187	Lvov, Yuri		Composite Electrolytes for Advanced Batteries From Functionalized Nanoclays	NSF	800,000
18-188	McGiffin, Curtis		Support for Nuclear Deterrence and Escalation Workforce Development - NUC 300	NSRI through CIC	30,541
18-189	Fatila, Elisabeth	Ramachandran/Radadia/ S.Wang	MRI: Acquisition of a Nuclear Magnetic Resonance Spectrometer to Support Research and Education in Molecular and Materials Sciences in North Louisiana	NSF	563,363
18-190	DeCoster, Mark	MurrayT/ Nestorova	Commercial Applications for the Biodegradable Nanocomposite CuHARS: drug Repurposing and Millifluidics	NSF	200,000
18-191	Dua, Prerna		A Predictive Modeling Framework to Study Intervention in Diabetes Mellitus	Medtronic	52,053
18-192	Madden, Diane	Keith-Vincent	I3 SciTEC Core Expansion	Jacksonville State University	84,000
18-193	McDonald, John		Catalyst Development for Fischer-Tropsch Synthesis	American Strategic Innovations	26,840
18-194	Alam, Shaurav	Matthews, John	Development of Proof of Concept for Determination of Longevity of Avanti Grout Material – Phase III	Avanti International	3,899
18-195	Momeni, Kasra	Weiss/ Jaganathan	Smart Hierarchically Designed Bricks for High-efficiency Buildings	DoE/ARPA	1,803,615
18-196	Lynam, Joan		Deep Eutectic Solvent Separation of Waste Biomass from Food Production	American Association for the Advancement of Science	50,000
18-197	Moore, Arden		On-Demand Radiative Heating and Cooling via Reversible Spectra-Selective Surface Emissivity Control	DoE/ARPA	1,054,697
18-198	Momeni, Kasra		Radiation-induced Amorphization and Interfacial Phase Formation in Intermetallic Materials for Light Water Reactors	DoE/ARPA	692,250
18-199	Weiss, Leland		PACER: Pliant Architecture, Compact Energy Resource	DoE/ARPA	285,000
18-200	Matthews, John		Resiliency of Urban Drinking Water, Wastewater, and Storm Water Infrastructure	NSF	1,693,978
18-201	Sun, Chuanbing Shawn		Development of an Ultra-high Performance Bridge Superstructure Eliminating Need for Maintenance, Repair, and Rehabilitation	LTRC	29,999

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

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
18-202	Jaganathan, Arun		Non-destructive Evaluation of Buried Transportation Infrastructure Using Air-coupled Impact Echo	LTRC	30,000
18-203	Weiss, Leland		MAKERS: Manufacturing Advancement through Key Experiences and Resources for Students	ONR	1,561,028
18-204	Moore, Arden		Neutralization of Directed Energy Weapon Threats to Small Satellites via an Intelligent Sense-and-Respond Phase Change Thermal Management Module	NRL	94,873
18-205	Alam, Shaurav	Eklund, Sven	AALFA - Artificial Aggregates from Lignin & Fly-Ash	LTRC	29,997
18-206	Poh, Scott		Targeting of Folate Receptor Between M1 and M2 Macrophages in Atherosclerosis Model	LBRN/NIH	19,000
18-207	Newman, Jamie		The Role of MED12 in Human Adipose Stem Cell Adipogenesis	LBRN/NIH	19,000
18-208	Moore, Arden	Peters, Andrew	Large-area Aligned Boron Nitride Nanotube Arrays via Block Copolymer Manipulation for Lightweight Functional Materials	DOD	475,000
18-209	Clay, Natalie		Seeding Cool-Season Cover Crops into Warm-Season Grass Sod: Effect on Ecosystem Function and Forage Dynamics	USDA NRCS CIG	32,081
18-210	Drozdenko, Benjamin	Matthews, E.	SCC: Empowering Small City Public Services using IoT-based Sensor Networks	NSF	750,000
18-211	Moore, Arden		Non-enzymatic Glucose Sensing via Transparent CuO Nanowire Networks on Flexible Substrates	NineSigma	160,078
18-212	Beminiwattha, Rakitha		Measurements of Fundamental Features of Nuclear Structure Relevant for Nuclear Physics and Astrophysics Using Parity Violating Electron Scattering	NSF	154,975
18-213	Caldolera-Moore, Mary		Assessment of Combinatorial Effects of Stem Cell and Proactive Biomaterials on Wound Healing Progression	LBRN	19,000
18-214	Rutledge, Julie		De-implementation of Detrimental Feeding Practices in Childcare	NIH NIDDK	82,060
18-216	Wang, Jay	Liu, Don	Computational and experimental studies of sustainability prediction of newly established wetland in Louisiana shoreline	NSF	405,671
18-217	Bishop, Tom		Collaborative Workflows for In Situ Comparative Molecular Modeling on LONI	LBRN	19,000
18-218	Fatila, Elisabeth		Investigation of Phosphate Oligomerization	Society for Analytical Chemists/ Pittsburgh	36,121
18-219	Newman, Jamie		The Role of Mediator in Regulating Mesenchymal Stem Cells	LBRN	7,500
18-220	Matthews, Elizabeth		Crisp 2.0 Type 2: Integrated Risk Management Approach for Building a Water-Power Flood Resilience Model and Solutions Framework	NSF	1,193,544
18-221	Poh, Scott	Jolin Rodrigues	Utilizing flow Cytometry to Study FR Expression in Atherosclerotic Plaques and Activated Macrophages	LBRN/NIH/LSU	7,500

(*Missing File #'s denote with-drawn /duplicate proposals)

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

*FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
18-223	Newman, Jamie		The Role of Notch3 in Human Adipose Stem Cell Adipogenesis	LBRN/NIH/LSU	7,500
18-224	Wilson, Chester		Perovskite Coating for Commercialization of Solar Power Harvesting	NSF	50,000
18-225	Matthews, John	Matthews, Elizabeth	Integrated Infrastructure Asset Condition and Risk Assessment Tool	Environmental Security Technology Certification Program	500,000
18-226	Momeni, Kasra		RII Track-4: Amorphization and Interfacial Phase Formation in Structural Materials of Accident Tolerant Nuclear Reactors, A Coupled Simulation and Experimentation Approach	NSF	207,151
18-227	Fontenot, Catherine	Chen, Yu-Chen	"Live Healthy: Nutrition Education and Physical Fitness for Low-Income Individuals"	Lincoln Health Foundation	25,154
18-228	O'Neal, Mike		NASA - American GNC - SBIR Phase I - Topic H.6.01 - Integrated System Health Management for Sustainable Habitats	NASA SBIR	24,000
18-229	Alam, Shaurav	Matthews, John	Pickle Jar Test of Epoxy Lining Material	IMRAE Corp.	24,406
18-230	Alam, Shaurav	Matthews, John	Pickle Jar Test of USCP's Epoxy Lining Material	USCP	24,406
18-231	Momeni, Kasra		Manufacture of 3D Printed Metals With Controlled Microstructures: A Computational Approach	BoR/NSF/CIMM	10,000
18-232	Matthews, John	Alam, Shaurav	Experimental Evaluation of Steel Pipe Joint Locking Mechanism	Trinity Pipe Products	6,817
18-233	Lynam, Joan		Project-Based Research Classes For High School Students: Agricultural And Forestry Wastes	USDA	100,000
18-234	Earl, Julia	Shepard, Donald	Assessing the Current Status and Distribution of Southern Crawfish Frogs in Louisiana	LDWF	72,712
18-235	Maness, Teresa	Adams, Heidi	Winter Habitat Assessment of Threatened Grassland Birds in North Louisiana	LDWF	20,847
18-236	Newman, Jamie		The Influence of Biomaterials in Directing Stem Cell State	BoR/SURE	5,000
18-237	Voziyanov, Yuri	Newman/Shultz	Flp-Cas Recombinases as Genome Engineering Platform	NIH	1,622,280
18-238	Murray, Teresa		2018 AHMB MINDS Conference Grant	NSF	25,748
18-239	Momeni, Kasra		A High-Fidelity Computational Framework for Additively Manufactured Nickel Superalloy Components for Turbine Engines	DOEnergy	750,000

(*Missing File #'s denote with-drawn /duplicate proposals)



2017 WINTER DISSERTATIONS

DOCTOR OF PHILOSOPHY College of Education



Sean Andrew Lajaunie, New Orleans

BS (2010) Louisiana State University, Baton Rouge
MA (2012) Louisiana Tech University, Ruston
Dissertation: "Risky Sexual Health Decision Making and Depression in College Students: A Terror Management Perspective"
Major Advisor: Dr. Donna Thomas

Danita Danielle Wynes, San Diego, CA

BA (2006) San Diego State University, San Diego, CA
MA (2012) San Diego State University, San Diego, CA
Dissertation: "Raising Racial Microaggression Awareness in an Undergraduate Population"
Major Advisor: Dr. Latoya Pierce

DOCTOR OF PHILOSOPHY College of Engineering and Science

Grace Naomie Joseph, Saint Lucia

BS (2011) Grambling State University, Grambling
Dissertation: "Cost-Effective Use of Follow-up Colonoscopies and Fecal Immunochemical Tests in Colorectal Cancer Screening"
Major Advisor: Dr. Eric Sherer

Jessica LeeAnn Scoggin, Lena

BLS (2008) Louisiana State University, Alexandria
MS (2013) Louisiana Tech University, Ruston
Dissertation: "Engineering Tool to Further Neuroscientific Investigation"
Major Advisor: Dr. Teresa Murray

New NIH Grant Submission Site: ASSIST (Cont'd from pg. 1)

- Present to reviewers clear, color PDF images rather than scanned versions of the application
- Avoid the hassle of preparing and shipping multiple paper copies

ASSIST can support both single-project and multi-project (also known as multi-component or complex) applications with features presented differently depending on the type of application, as determined by the entered Funding Opportunity Announcement (FOA). 1.1 Application Format - All electronic single-project applications prepared in ASSIST will include: 1) All required forms necessary for the application package; 2) All optional forms available for the application package.

All electronic multi-project applications prepared in ASSIST will include: A single Overall Component: The Overall component describes the entire application and how each of the additional components fit together. Other Components: Some number of other component types (e.g., Admin Core, Project, Core) with predefined data collection requirements set by the agency when posting the opportunity in Grants.gov. Summaries: Information compiled from the data provided in the individual components (e.g., component and categorical roll-ups of budget data). For more information, go to https://era.nih.gov/files/ASSIST_user_guide.pdf.

* * * * *