



**PRAIRIE VIEW
A&M UNIVERSITY**

The Office of Research, Innovation
and Sponsored Programs



RESEARCH

BRIEFS

PVAMU Host Inaugural Research Week April 10–12, 2019

CONTRIBUTOR TESFAMICHAEL KEBROM

PVAMU's Research Week held April 10 -12, 2019 is jointly sponsored by the Office of Research, Innovation and Sponsored Programs (ORISP), the Office of the Provost and the Office of Academic Affairs to recognize and celebrate the innovative research and accomplishments of faculty, researchers, and students. The event also provides a forum for PVAMU faculty, scientists and students from various colleges/school and centers to come together and learn about the work, ideas and accomplishments of colleagues, and explore opportunities for collaborations. Faculty and researchers will also have the opportunity to learn about research capabilities and facilities on campus and how to access these resources.

The event will commence on April 10th with faculty and scientists displaying posters at the new PVAMU Welcome Center from 9:30 AM to 12:00 PM. The poster display will be followed by the Student Research Symposium on April 11th from 9:30 AM to 12:00 PM at the Student Recreation Center where graduate and undergraduate students will present their posters. The theme of the inaugural event is "Reaching New Heights." The Student Research Symposium is a joint effort between the Texas Juvenile Crime Center, the Office of Undergraduate Research, and the colleges of Agriculture and Human Sciences, Engineering, Nursing, and Arts and Sciences.

Judges will evaluate the posters and presentations of faculty and students and will nominate the best posters for awards. The posters will be categorized as STEM (Science, Technology, Engineering, and Mathematics) and Non-STEM. The awardees will receive prizes on the third day, April 12th from 11:00 AM to 2:00 PM, during the Award Ceremony of the Research Week at the Don Clark Juvenile Justice and Psychology Building auditorium. Join us for the PVAMU Inaugural Research Week to revel in the creativity and innovation at the institution.

For additional information regarding this event, please contact Jacqueline Muckleroy at jrmuckleroy@pvamu.edu.

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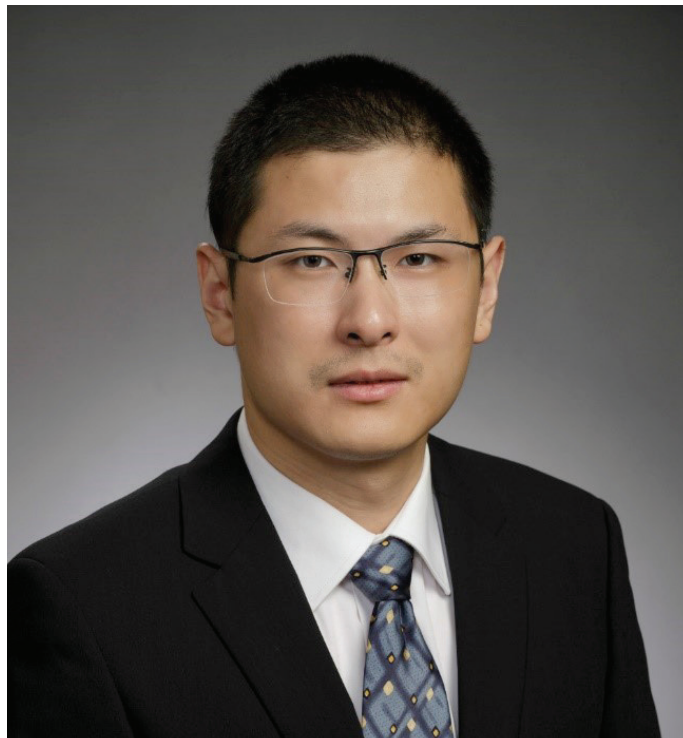
Dr. Lai Jiang's new research published in the Journal of Clean Production:

Manufacturing Recyclable Materials from Natural Fibers and Biodegradable Resins

CONTRIBUTORS AWADH BINHAZIM AND TEFAMICHAEL KEBROM

Jiang's research is about the next generation of sustainable composite materials manufactured from natural fibers and resins to make light and strong composites that are recyclable or biodegradable. These biodegradable materials have several potential benefits and environmental impacts. The scientist behind this work is Dr. Lai Jiang, Assistant Professor in the Department of Mechanical Engineering at PVAMU. His research focuses on the development of novel manufacturing processes of green composites, also known as biocomposites. Dr. Jiang's recent paper published in the Journal of Clean Production features a new approach to manufacturing biocomposite sandwich structure with all materials naturally derived, including jute, flax, and cellulose textile as reinforcement skin; mycelium-bound (fungus-bound) agricultural waste as lightweight cores; and a soy-based bioresin as a matrix.

The paper focuses on the final step of the newly developed manufacturing process: resin infusion, followed by curing in place for the grown, then deactivated mycelium sandwich beams. Dr. Jiang and his colleagues found that the cured resin increased the beams' core shear ultimate stress, core shear yield stress, skin ultimate stress, and flexural strengths of the sandwich beams by factors of 1.5 - 6.5, and the finite element simulation results agreed with the actual situations. The authors concluded that although the skin material carries most of the load, the strength of the sandwich structure appears to largely depend on the degree of fungal colonization within the core and bonding between the skin and core.



The use of renewable resources such as biocomposites reduces the needs for petrochemicals and minerals. This new material studied by Dr. Jiang and colleagues could be used to replace many of the plastic products derived from petrochemicals; therefore, reducing the production of plastic waste while increasing efficiencies of nonrenewable resources.

Dr. Jiang's article can be found here: <https://doi.org/10.1016/j.jclepro.2018.09.255>.

Dr. Sesha Kethineni publishes a paper on Cryptocurrency and Associated Crimes

CONTRIBUTORS SESHA KETHENENI, AWADH BINHAZIM, TESFAMICHAEL KEBROM

We live in an exciting age of e-commerce. We have the ability through the internet to reach anyone, and now with a virtual cryptocurrency, we have a myriad of implications in our daily lives. E-commerce on the internet relies on the traditional interbank transactions to process electronic payments, which might take several days to finalize. The idea to develop virtual currency (cryptocurrency) emerged in 2008 when Satoshi Nakamoto, presumed to be a pseudonym, wrote a whitepaper on the need to have an electronic cash system between two parties without a middleman (i.e., any financial institution) based on cryptographic proof. The benefit includes real-time transactions and verifications that reduce processing time to seconds. In 2009, the virtual currency bitcoin was created and is now the most widely accepted cryptocurrency in the world. Some economists believe that cryptocurrencies play an important role in e-commerce, whereas others fear that they create new opportunities for cybercriminals such as Ponzi schemes, drug trafficking, money laundering, extortion, and financing of terrorists' activities.

Dr. Sesha Kethineni, a Professor in the College of Juvenile Justice and Psychology, together with her student Ying Cao, published a paper on cryptocurrency and associated criminal activity in the journal *International Criminal Justice Review*. Their paper focused on investigating factors that facilitate cryptocurrency-related criminal activities, the role of politics in regulating cryptocurrencies, and the challenges they pose for regulators and law enforcement. Their systematic review of news reports, court cases, scholarly articles, and commentaries relevant to regulations and reforms revealed that the use of cryptocurrencies for illegal activities is expanding worldwide. The authors concluded that the cross-border nature of cryptocurrency transactions, the use of evasion technology to mask the identity of users, and inconsistent regulations both in the United States and globally are posing challenges for regulators and law enforcement in identifying and prosecuting cryptocurrency-related crimes. Their article can be found here: journals.sagepub.com/doi/full/10.1177/1057567719827051

Dr. Kethineni's research interest in cryptocurrency started in 2014 when one of her graduate students mentioned a case involving bitcoin and illegal drug sales in Illinois. Her first paper on cryptocurrency, published online in 2017 in the *American Journal of Criminal Justice*, is widely read and has been downloaded more than 2,200 times. Her future research will focus on social network analysis of offenders on cyberspace.



Graduate Research Assistantships Awarded

CONTRIBUTOR RAMASWAMY KRISHNAMOORTHY

The Graduate Research Assistantship (GRA) Program is yet another way ORISP strives to increase the research capacity of PVAMU by encouraging and supporting meritorious students to pursue graduate studies.

ORISP recently awarded GRAs to 30 students in multiple colleges to support their research and creative activities. These students were selected from a competitive pool of 49 applicants on the basis of their scope of graduate work, GPA, resume, and advisors' recommendation letters.

The award pays \$ 1,600 per month for a Master's level student and \$ 2,000 per month for a doctoral student. It also provides \$ 500 for research expenses. GRAs are renewable each semester subject to satisfactory progress and availability of funds.

ORISP will soon publish a booklet of the funded project proposals.

ORISP congratulates the following graduate students on their awards:

Student	Advisor	College
Maduforo Eze	Kevin Riles	Architecture
Michelle Johnson	Kevin Riles	Architecture
Cristian Gutierrez	Ananda Amarasekara	Arts & Sciences
Rocio Obregon	Ananda Amarasekara	Arts & Sciences
Jalen Farmer	Gloria Regisford	Arts & Sciences
Nadria Robinson	Michael Royster	Arts & Sciences
Tamarra West	Michael Royster	Arts & Sciences
Dominic Okeke	Premkumar Saganti	Arts & Sciences
Omolola Oyewumi	Emmanuel Opara	Business
Chidiebere Udoeye	Emmanuel Opara	Business
Temisan Boyo	William Parker	Education
Tiesha Seabrook	William Parker	Education
Olumide Abel	Ahmed Ahmed	Engineering
Adeoluwa Akinwa	Ahmed Ahmed	Engineering
Kelechi Eze	Cajetan Akujuobi	Engineering
Uchenne Samuel Igwe	Emmanuel Nzewi	Engineering
Ifeanyi Okoye	Emmanuel Nzewi	Engineering
Larry Bell	Jianren Zhou	Engineering
Chinedum Onyekwelu	John Fuller	Engineering
Donald Fina	Jorge Gabitto	Engineering
Abdelhadi Hussein	Paul Biney	Engineering
Sheikh Tarez Ahmed	Shumon Alam	Engineering
James Aikhionbare	Suxia Cui	Engineering
Yu Zhou	Suxia Cui	Engineering
Joseph Akuta	Warsame Ali	Engineering
Faduma Sheikh-Yusuf	Warsame Ali	Engineering
Pranay Krishna Haribabu	Ziaul Huque	Engineering
Ajali Jones	Grace Abolaji	ORISP
Chinelo Okonkwo	Grace Abolaji	ORISP
Oluwatosin Opeoluwa	Grace Abolaji	ORISP

A Multi-Institution Collaborative Effort in Disaster Resilience Research: Prairie View A&M, Stanford, and Northeastern Universities

CONTRIBUTOR LOUIS NGAMASSI AND RIPENDRA AWAL

Daniel P. Aldrich, Director of the Security and Resilience Studies program and Professor in political science and public policy at Northeastern University in Boston, MA and Chittayong Surakitbanharn, the Executive Director of the Stanford Urban Resilience Initiative (SURI), visited Prairie View A&M University on February 14, 2019. They were invited by Louis Ngamassi, Associate Professor and Director of a PVAMU disaster management related project funded by the Department of Homeland Security, Scientific Leadership Award (DHS-SLA). One of the goals of the 5-year \$1million project is to investigate how the extreme heterogeneity of user-generated information through social media and other emerging technologies can be transformed and used for improved situational awareness and effective collaborative decision making during the four phases of disaster management. The project also seeks to broaden the participation of minority students in the information society by providing them with a set of new innovative skills and by engaging them in exploring the use of information and telecommunication technology (ICT) including social media analytics in information-producing and sharing for disaster management and relief. Both Surakitbanharn and Aldrich serve as research collaborators and student mentors on this project.

They met a team of researchers led by Ali Fares, Interim Vice President for Research, Innovation and Sponsored Programs, and discussed the ongoing collaboration

between the three institutions on the National Science Foundation's Engineering Research Centers (ERC) proposal - Center for data for socio-physical extreme event resilience (Data-SPEER) as well as other potential future collaborations.

The mayor of the city of Prairie View, Mr. David Allen, also joined the meeting and expressed his interest in disaster resilience-related research. Other participants in the meeting, who are working on Data-SPEER Proposal, included Camille Gibson, Interim Dean of the College of Juvenile Justice and Psychology, Ripendra Awal and Hamideh Habibi from the Cooperative Agricultural Research Center and Suxia Cui from the College of Engineering.

Aldrich gave a presentation on "How to survive and thrive after a disaster: lessons from Japan." His presentation was part of the College of Business Research Seminar Series. His presentation explained the reason for the variation in mortality during the tsunami and recovery after the disaster. Disasters such as hurricanes frequently occur in Texas coastal areas and have multiple implications in large urban areas such as Houston, TX. Research in this field provides insights into disaster management and resiliency.

Aldrich also met with and networked with PVAMU faculty and students who are currently involved in the Ngamassi led DHS-SLA funded project.



Radiation Institute of Science & Engineering: PVAMU's Charged Particle Detector in Space

Q & A Session with Dr. Premkumar Saganti

WRITTEN BY RAMASWAMY KRISHNAMOORTHY

Dr. Premkumar Saganti, TAMUS Regents' Professor in the Department of Chemistry and Physics at PVAMU, is the principal investigator of the Chancellor's Research Initiative (CRI)-supported Radiation Institute of Science & Engineering (Ralse). Ralse was the first such research center established at PVAMU in 2013. As a research scientist at NASA-Johnson Space Center (JSC) for more than a decade, Saganti made significant contributions to projects, such as the International Space Station and Mars Radiation Research for Human Explorations. Saganti joined the Department of Chemistry and Physics in 2003. Since then, Saganti and his team of researchers have made great strides in the field of space radiation biology studies with the goal of assessing risks associated with human space explorations. The Ralse has enjoyed productive collaborations with not only our national labs but also international space research stations in Japan, Bulgaria, and Germany.

Working with the Kyushu Institute of Technology (KIT) - Japan, Ralse and NASA collaboratively developed a Particle Pixel Detector which was launched as a payload aboard the spacecraft, Shinen2, in 2014, which made trips around the Sun between Venus and Mars orbits for the past four years. In 2018, a second and more advanced payload, a Charged Particle Detector (CPD) for Solar Heliospheric Assessment of Radiation Particles was developed by PVAMU / NASA for KIT- Japan and was launched aboard the Ten-Koh spacecraft. It is currently in polar orbit around the earth at an altitude of about 360 miles, passing through PVAMU several times a week.

ORISP recently interacted with Dr. Saganti to learn more about the CPD and the studies it will be used for and the benefits such studies may bring to humanity.

Launch of Ten-Koh Spacecraft
on October 29, 2018



Q: What does the CPD payload aboard Ten-Koh consist of?

A: The payload has a spectrometer that was custom-built by the Bulgarian Academy of Sciences, and a set of six sensors for detecting and quantifying space radiations, including X-rays. These space radiations which include charged particles pose health risks to human space travel.

Q: What is unique about the PVAMU invention?

A: Our payloads are of the lowest weight (less than one kilogram) in its class of mission with the lowest power consumption ever designed for space applications. Our detector system operates at 12 V and consumes less than 3 W power to collect data, while most others require more than 36 V and 10 W power.

Q: How are the data collected by the CPD-SHARP used?

A: We use space radiation data to simulate conditions for ground-based experiments. We subject biological samples, such as neuron cells and other human and mouse cells to radiations of similar kind and intensity and assess and delineate time-dependent, radiation-induced damages at the cellular and sub-cellular levels. Our radiation detectors have an extremely high resolution of two microns. In simple terms, we can assess damages occurring on about one-third of a single human red cell!

Q: What is the ultimate benefit to humanity from your space radiation projects?

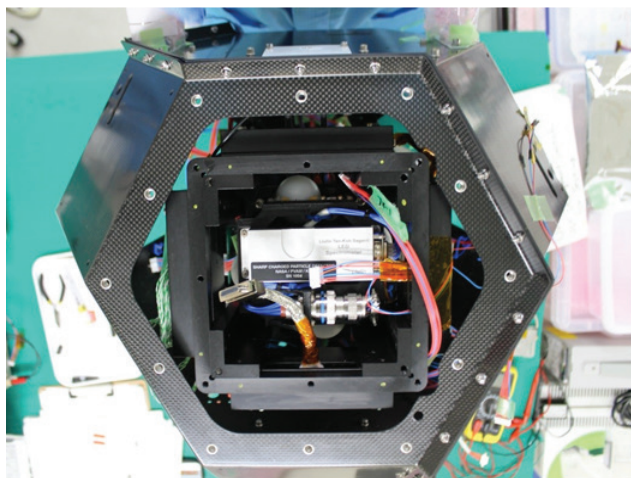
A: We aim to characterize charged particles and ionizing radiations in space qualitatively and quantitatively. We use sophisticated and highly sensitive biophysical methods in our ground-based biological studies to characterize chromosomal and DNA damages induced by such radiations. From those studies, we hope to develop novel heavy ion-based radiation protocols to specifically target and destroy cancer cells. Proton and carbon ion based radiations are currently used in cancer treatment.

Q: Who are all working in your lab on the CPD-SHARP project?

A: Two undergraduate students, Patierre Thorpe, and Seth Saganti; two graduate students, Mahmudur Rahman and Sonia Kolluri. These students work with Dr. Gary Erickson, Ramesh Dwivedi, and Brian Cudnik.

Of course, we also work with collaborators from NASA-JSC, Doug Holland and Richard Hagan; from KIT-Japan, Professor Okuyama and his team of students; from Bulgaria, Professor Dachev.

As you can see, we are a large, international team working on the CPD-SHARP project.



The Charged Particle Detector (CPD)
payload on Ten-Koh spacecraft

PVAMU Graduate Student Funded through the Chancellor Research Initiative and his Mentors Co-Author a Textbook on Electric Machines!

CONTRIBUTOR ALI FARES



Samir Abood, a Doctoral Graduate Student in the Electrical and Computer Engineering Department and his mentors Professors Warsame Ali and Matthew Sadiku published a textbook titled *Fundamentals of Electric Machines: A Primer with MATLAB 1st Edition* with CRC Press, ISBN 0367250985. The E-version of it is now available online. However, the printed version will be available this July 2019. Samir is the recipient of a Graduate Student Research Assistantship from the Smart Grid Project that is funded by the Chancellor Research Initiative (CRI). Professor Warsame is a Co-PI on that project.

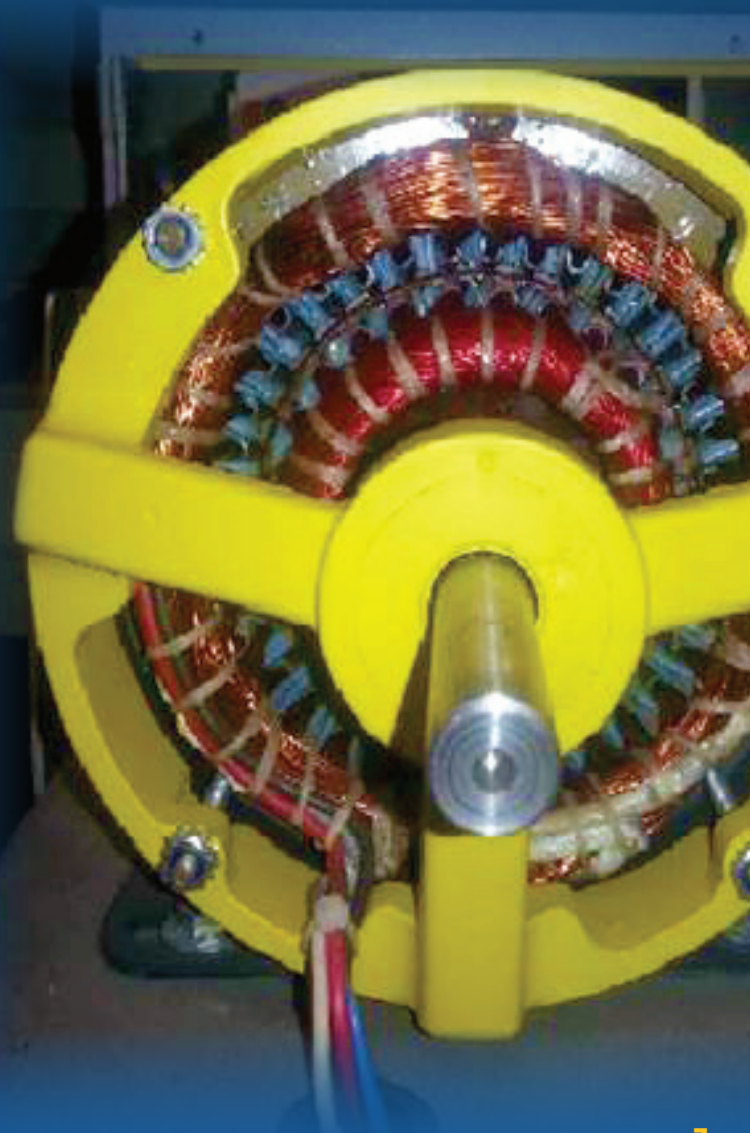
"This book presents the relation of power quantities for the machine as the current, voltage power flow, power losses, and efficiency. It also provides a good understanding of the behavior of the electric machine and its drive, beginning with the study of salient features of electrical dc and ac machines," said Professor Warsame, the lead author of the book. Professor Warsame added: "The integrated theoretical principles and computer program language will help senior electrical engineering students at PVAMU and globally better master needed skills through practical program assignments."

"I am delighted to see that a PVAMU graduate student supported by the Chancellor Research Initiative Smart Grid project is a co-author on a textbook on a very significant engineering topic. Such a book will be used to teach thousands of students in PVAMU and across the globe! I hope other faculty will follow this example," said Ali Fares, Interim Vice President for Research. He added, "It's through the efforts of researchers such as Professor Warsame that we can improve our teaching programs, as I am certain that numerous examples Professors Warsame and Sadiku used in their textbook

to illustrate the theoretical principles are from their own research program."

It's worthy to note that Professor Warsame Ali is a PVAMU alum. He earned an M.S. degree at the University, after which he earned a doctoral degree from the University of Houston. He also is a recipient of a B. S. degree from King Saud University, Saudi Arabia.

Indeed, PVAMU produces productive people, and it is the efforts of students and faculty similar to these co-authors that continue to enhance the status of research and the academic program of our campus.



How did this become a medical desert?

CONTRIBUTOR MARK TSCHAEPE AND AWADH BINHAZIM

On May 9, 2019, Associate Professor of Philosophy, Dr. Mark Tschaepe, will be accompanied by two students to present their panel, “How Did This Become a Medical Desert?” at the Annual National Rural Health Association (NRHA) Conference in Atlanta, Georgia. The two students are Christian Farley, who is a graduating senior in the Honor’s Program and Undergraduate Medical Academy at PVAMU, and Michael Zhou, who is a junior at Cypress Ranch High School. With a Faculty Research Grant from the Office of Research at PVAMU, Dr. Tschaepe directed the project, which focused on healthcare in Waller County, Texas, where PVAMU is located.

Christian Farley was responsible for conducting initial needs assessment surveys with community members. The surveys, which were approved by IRB at PVAMU, asked questions pertaining to aspects of healthcare including distances between homes and primary care physicians, number of doctor visits per year, and challenges concerning access to healthcare in the region. According to Farley, “The most exciting part of this project was getting to know the county better. This includes its people, its businesses, its towns, and parts of the local government.” He will be presenting his experiences speaking with community members at the conference.

Michael Zhou, who volunteered to assist Dr. Tschaepe in research on the project this summer, was tasked with conducting archival research at the John B. Coleman Library. With the help of the University Archivist, Phyllis Earles and Special Collections Librarian, Lisa Stafford, Michael reconstructed the history of the two hospitals that once operated in Waller County. One of the hospitals operated in Hempstead, and the other operated on PVAMU’s campus. For most of the summer, Michael spent his days in the archives sifting through photographs, documents, and various files to discern the stories of why each hospital had been built, how each operated, and why each closed. According to Zhou,

“The most exciting part of this project was being able to find out more about our past. Learning the history of where Waller comes from, helps me understand how our community was built and has changed.” He also is excited about communicating the findings of this research to a national audience, saying, “I would want people to know how critical the health situation in Waller County is. It has been over 30 years since Waller County has had a hospital and the need for one is apparent.” At the conference, Michael will be presenting his findings about the hospitals.

Since conducting this research over the summer, Dr. Tschaepe has started the Waller County Rural Healthcare Ethics Network on campus, which meets every month to discuss issues concerning healthcare in Waller County. Additionally, he is now directing three PVAMU students on further research. Rachel Johnson and Daija Doral have been researching mental health care in Waller County; and Scenic Mosley, with assistance from an Undergraduate Research Award, has been investigating legal representation for health-related cases in the county. Tschaepe hopes that participation in the NRHA conference in May will set a precedent for future work that may be presented by students and faculty about rural healthcare in Waller County.



Monique Garcia's Exemplary Undergraduate Research Experience at the College of Agriculture and Human Sciences

Q & A Session with Monique Garcia

CONTRIBUTOR TESFAMICHAEL KEBROM



Monique Garcia is a senior student majoring in Biology. She also works part-time in the core labs at the Cooperative Agricultural Research Center (CARC), College of Agriculture and Human Sciences (CAHS). She started working at CARC in January 2018 as a volunteer on a seed germination project. Since then, Monique has conducted many experiments, presented posters and talks in various scientific meetings, and co-authored a paper published in January 2019 in the Journal Environmental Science and Pollution Research. She shares her undergraduate research experience as follows:

Q: How did you hear about the seed germination research project?

A: I was very interested in doing research. I did not know exactly what I wanted to do until I heard about the seed germination project through my friend Asja Jackson, a senior student in the Department of Chemistry. Asja introduced me to Dr. Tesfamichael Kebrom, who was a postdoctoral researcher conducting the seed germination research at CARC.

Q: How did you start working on the seed germination project?

A: After talking to Dr. Kebrom and expressing my interest to volunteer in my free time, all I had to do was complete and submit a volunteer form.

Q: What skills did you learn?

A: I learned how to design and conduct research using various experimental and analytical tools. Dr. Kebrom and Dr. Sela Woldeesenbet, Research Specialist managing the core labs at CARC, also trained me on how to prepare and present posters and talks.

Q: What are your plans after graduating?

A: My plan after graduating is to attend veterinary school or to earn a Master of Science in Biology.

Q: How will the research experience at CAHS help you in your future?

A: Since I may go to veterinary school, and productive research experience for at least six months is a requirement for admission, I can say I am one-step closer to my future goal.

Q: What advice do you have for other undergraduate students?

A: Do not be afraid to ask professors and researchers for opportunities to work in their labs. Sometimes they may have vacancies or can guide you to labs with vacancies or research projects more related to your interest.

Research Horizon Seminar Series:

Dr. Na Li Presents Tools for Protecting Digital Security and Privacy

CONTRIBUTOR RAMASWAMY KRISHNAMOORTHY

Dr. Na Li, Assistant Professor in the Department of Computer Science, opened the ORISP's spring Research Horizons Seminar series on February 8th with a talk on "Enhancing Privacy Education among Younger Generations". Li is an expert in the area of cybersecurity and cyberprivacy with more than 25 publications that have been cited more than 800 times, according to Google Scholar.

Based on her research that has been supported by grants from NSF (National Science Foundation) and NSA (National Security Agency), she explained the lurking digital dangers that intrude various social media and apps and compromise our information

security and information privacy. Li delineated how privacy associated with locations, images, data, and the Internet of Things could be compromised, even if the user was cautious. She and her students have developed digital tools to circumvent those pitfalls. To the delight of the room full of students, Li demonstrated the use of some of those apps.

Li's efforts have also extended to developing a set of computer science courses that will enable interested students to pursue careers in cybersecurity and cyberprivacy.

MORE INFORMATION

contact Li at Nali@pvamu.edu.

FY 2019 Faculty Research Development Grant Program (FRDGP) Awardees

CONTRIBUTOR RAMASWAMY KRISHNAMOORTHY

The Office of Research, Innovation and Sponsored Programs (ORISP) provided an opportunity for faculty to obtain funding for research projects. ORISP received a total of 42 proposals from various colleges. Each proposal was reviewed by at least two external or internal faculty members, and the reviews were discussed by an ORISP team. The intellectual merit of the proposal and its potential to attract extramural funding and to increase the research capacity of PVAMU, and PI's credentials and experience were some of the factors evaluated by the reviewers. Each reviewer assigned an overall score, and the top-ranking proposals of Types A and B were selected for funding. ORISP extended its funding ability to support more meritorious proposals by providing an additional type of funding—Type C.

A total of 23 proposals was selected for Types A, B, and C awards.

The Type A award provides up to \$90,000 for one year with the possibility of renewal for a second year, the Type B award up to \$45,000 for one year only, and the Type C award up to \$16,000.

The distribution of the grant awards among the various Colleges and Departments is given to right:

College of Arts & Sciences: 9

Department	Number of Awards
Biology	1
Chemistry & Physics	7
Mathematics	1

College of Agriculture, Nutrition, and Human Sciences: 1

College of Engineering: 12

Department	Number of Awards
Chemical Engineering	1
Computer Science	1
Electrical & Computer Engineering	4
Engineering Technology	1
Mechanical Engineering	5

College of Juvenile Justice: 2

Department	Number of Awards
Psychology	2

FY 2019 Faculty Research Development Grant Program (FRDGP) Awardees *continued*

Details about the awarded projects are given below. Congratulations to all the awardees!

ORISP encourages all the faculty members, including those whose proposals could not be funded, to submit proposals for the next cycle of funding.

Type A Grant Awardees

PI	Department	Project Title
April Lovelady	Mechanical Engineering	Impact of an External Vascular Access Device on Arteriovenous Fistula Patency Rates
Yuhao Xu	Mechanical Engineering	High-Pressure Combustion of Liquid Fuels in Microgravity
Yunxiang Gao	Chemistry & Physics	Develop Novel Tissue Engineering Scaffolds for Regenerative Medicine, Cancer and Radiobiology Research
Sameh Abdelwahed	Chemistry & Physics	Thiamin and Thiamin Analogues as Carriers for Drug Delivery to Cancer Cells

Type B Grant Awardees

PI	Department	Project Title
Gina Chiarella	Chemistry & Physics	Synthesis, Characterization and Modeling Study of Environmentally Friendly Schiff-Based Catalyst with Improved Reducing Power
Gururaj Neelgund	Chemistry & Physics	Design and synthesis of novel NIR active photothermal agents for photothermal therapy of cancer
Jaejong Park	Mechanical Engineering	Stiffness matching implant through biomimetic fibrous structures for craniofacial reconstruction surgery
Marco Giles	Chemistry & Physics	Dynamic Covalent Polycarbonate Systems: "Rewritable" and Self-Healing Architectures Facilitated by Thiol-Disulfide Exchange
Lai Jiang	Mechanical Engineering	Sustainable Bio-composites Manufacturing using Bio-fiber (hemp)
Yuki Shigemoto	Psychology	Longitudinal effect of personal growth initiative on posttraumatic stress symptoms among African American college students
Victoria Mgbemena	Biology	The role of germline mutations in DNA repair genes in cancer stem cell development and renewal
Roslyn Caldwell-Gunes	Psychology	The Collective Group Identity Project: An Examination and Comparison of Identity Development, Cultural Mistrust, and Mental Health Issues among Black Male College Students and Black Male First Time Offenders.
Xiaobo Peng	Mechanical Engineering	Direct 3D Printing System Using LOM Process: from Point Cloud to Additive Manufacturing
Harshica Fernando	Chemistry & Physics	Lipidomic Signatures of Milk Lipids and Their Association in the Prevention and Treatment of Alcoholic and Non-alcoholic Fatty liver
Nabila Shamim	Chemical Engineering	Investigate the Glass Transition Temperature (T _g) of Polymer – Graphene nanoplatelet Thin Films
Lei Huang	Computer Science	Conducting Research in Convergence of High-Performance Computing and Data Science

Type C Grant Awardees

PI	Department	Project Title
Shuza Binzaid	Electrical & Computer Engineering	Multifunctional Sensor and Custom Electronic Module for Detection of Ionic, Electromagnetic and Radiation Environments
Ananda Amarasekara	Chemistry & Physics	Renewable monomer based next generation biodegradable polymer architectures
Sarhan Musa	Engineering Technology	Computational Nanotechnology and Artificial Intelligence to Enhance
Solar Photovoltaic Cells for Renewable Energy	Psychology	Longitudinal effect of personal growth initiative on posttraumatic stress symptoms among African American college students
Xiangfang Li	Electrical & Computer Engineering	Deep Learning for Biomedical Bioinformatics
Dumitru Iacobas	Electrical & Computer Engineering	Complement C5ar1 Antagonists for the Treatment of Autism Spectrum Disorders
Manouchehr Misaghian	Mathematics	Representation Theory of p-adic Groups and Howe's Local Duality
Xishuang Dong	Electrical & Computer Engineering	Machine Learning Based Fake News Detection on Twitter

Grant Writing Workshop to be Offered in May 2019

CONTRIBUTOR OLUSOLA EWULO

The Office of Research, Innovation and Sponsored Programs (ORISP) is pleased to announce our spring 2019 Grant Writing Workshop. To be held May 20 – 22, this 3-day workshop will consist of hands-on exercises designed to coach faculty on how to writing grant proposals to support their research. ORISP has contracted with Academic Research Funding Strategies, LLC to facilitate this workshop.

On Monday, May 20th, morning and afternoon sessions will be offered and will focus on topics such as defining your long-term research and education agendas, finding funding opportunities to fit your research interests, recruiting collaborators, the art of grantsmanship, writing your proposal section-by-section, and interpreting reviews. On Tuesday, May 21st, the facilitators will introduce funder-specific topics and concentrate on proposal development for the National Science Foundation (NSF), and the National Institute of

Health (NIH). An informal roundtable discussion also will be offered, centering on participants' specific project ideas. On Wednesday, May 22nd, facilitators will continue with funder-specific topics and will focus on preparation of proposals to the Department of Education (DOEd), and the U.S. Department of Agriculture (USDA).

Participants are encouraged to bring a laptop and charger to access websites and materials. Participants also are encouraged to have a tentative project in mind to conduct exercises. Electronic versions of presentations, materials and other resources will be provided to participants.

REGISTRATION NOW OPEN for the 2019 Grant Writing Workshop.
www.pvamu.edu/research/post/2019-grant-workshop

MORE INFORMATION contact **Olusola Ewulo** at
<mailto:odewulo@PVAMU.EDU>.

UPCOMING EVENTS

DATE	EVENT	LOCATION
March 27, 2019	Research Compliance Training	Wilhelmina Delco Building, Room 120
March 29, 2019	Branding: The Unknown Researcher	E.E. O'Banion New Science Building – Rooms 122/123
April 10-12, 2019	PVAMU Research Week	Multiple Locations
May 13-17, 2019	2019 Principal Investigator Bootcamp	PVAMU Northwest Houston Campus
May 20-22, 2019	2019 Grant Writing Workshop	E.E. O'Banion New Science Building – Rooms 122/123

Ali Fares, Interim Vice President Research, Innovation and Sponsored Programs
Karen B. Cotton, Editor

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