Welcome to the May 2020 edition of the Graduate News. Within this issue, you’ll find updates on the winners of the Graduate Research Achievement Day 2020 Poster Contest, three interviews, including the 1st place winner from Graduate Research Achievement Day, and multiple announcements open to students and faculty. Enjoy, and let us know your thoughts. -Xavier-Lewis Palmer

The Graduate School would like to thank all of the students for participating in the 10th Annual Graduate Research Achievement Day. We would also like to express our deep appreciation to our judges for their time and dedication to this task: Dr. Elko Klijn, Dr. Randy Gainey, Dr. Scott Sechrist, Dr. Shana Pribesh, Dr. Vukica Jovanovic, and Dr. Alvin Holder. Everyone's hard work and patience in adapting to a new, virtual format made this event a great success.

Students submitted their abstracts and posters digitally, and judges reviewed them during the week of April 9-16. Each can be viewed at https://digitalcommons.odu.edu/graduateschool_achievementday2020/.

Additional thanks are due to the University Libraries' Digital Commons for hosting their e-posters. The winners are below:

**Top Three Winners:**

*First Place:*
“Artificial Perches as a Technique for Enhancing Tropical Forest Restoration: A Case Study from the Dominican Republic”
**Spencer Schubert**, Ally S. Lahey, Ashley R. Weisman, and Eric L. Walters

*Second Place:*
“The effects of physical exercise on salivary microrna levels”

*Third Place:*
“Athletic training student patient encounter characteristics during immersive and non-immersive experiences: A report from the athletic training clinical network”
**Bailey Jones**, Julie M. Cavallario, Cailee Welch Bacon, Stacy Walker, and Bonnie Van Lunen

**Honorable Mentions:**

“Integrating Emergency Preparedness Rules in CMS Regulated Nursing Homes: A Case Study in Hampton Roads, VA”
**Tihara Richardson**

“Effects of Bug-in-Ear Technology on Specific Praise Statements Given by Paraeducators to Transition-Age Students with Autism”
**Olga Karadimou**, Sierra Lotts, and Annmarie Horn

“Evaluation of balance and a timed walk on ankle brachial pressure index and potential blood measures of cardiovascular health”
**Hannah Twiddy**, Patrick B. Wilson, and Leyrn Reynolds
Ten years ago, I never would have expected to end up doing my Ph.D. at Old Dominion University. Neither Virginia, nor ODU were exactly on my radar, having spent most of my youth and education in the Midwest. But then again, my career in ecology has taken me to many unexpected places. I am a 90s kid who grew up on Animal Planet and National Geographic TV series. So, logically, I also spent a lot of time outdoors trying to catch any animal I could get my hands on to get a closer look. My grandma really got me into birds at an early age, and I had the fortune of having parents cool enough to plan usually at least one summer vacation to places where me and my brothers could either fish, hike, or snorkel. For my career, I always wanted to find a way to at least partly work nature into it. It was not until going to Saint Olaf College (MN) that I had a couple of professors help me to recognize that being an ecologist was a reasonable and attainable goal. Now that I have had some experience, I can't really say there's anything else I'd rather be doing. I love coming up with projects and driving my initiatives and ideas that allow me to get my hands dirty with field work and teaming up with so many amazing and brilliant people that you find in this field.

I spent about two years looking for a chance to go to graduate school after finishing my bachelor's degree as I worked on various seasonal research projects in South America, the Caribbean, and here in the US. My main objective was to find a program and advisor that would help me start a project in the Dominican Republic focused on avian seed dispersal and its applications for forest restoration. This has been my goal ever since 2014, when I spent several months volunteering on a different research project there. During this time, I met a handful of local researchers, farmers, and conservationists who were very interested in supporting projects with these applications. Most professors I talked to about this potential project were not very keen on the idea of supervising a new student going somewhere they weren't already working, that they didn't have funding for, or that wasn't within the immediate scope of their current research. Dr. Eric Walters was the outlier among these and was willing to hear me go on at length about my ideas of what I could investigate and how we could work together to compile the resources to make the work possible.

For my Ph.D. research, I have spent the last four years leading field research in small farming community surrounding the mountain town of Jarabacoa, in the Dominican Republic. This project has two main directives. The first is to understand the extent of avian and plant biodiversity across rural human-modified landscapes and how communities are organized through seed dispersal mutualisms. The second is to apply our growing knowledge of this biodiversity and the behavior of seed dispersers to improving forest conservation and management practices. In addition to uncovering new insights into how wildlife can be integrated into forest restoration, our experiments using artificial perches have given us a unique opportunity to partner with local organizations, like the watershed conservancy Plan Yaque Inc., and to use the story of this series of studies to help convey to the public how plants, animals, and natural resources are all integral to our wellbeing and livelihoods.

Cooperating with local watershed conservancy, Plan Yaque Inc., to construct and install bird perches to add to restoration areas.
Having spent almost as much time in Jarabacoa through the duration of my research as I have in Norfolk, it has become very much like home. I have had lots of opportunities to go out into my community to get people involved in nature and to learn about the importance of research and conservation. We have organized several visits to give demonstrations to elementary school children, including interactive learning and games to teach them about concepts of wildlife and forest conservation. I have also volunteered two years now as a summer camp counselor here, specifically leading a Wildlife Club, where I lead daily naturalists walks to teach about different plants and animals. For the past two years, I have also been the lead compiler and organizer for the annual Audubon Christmas Bird Count, which is a tradition that we started with bird and nature enthusiasts in this town that we intend to continue annually for many years.

For some of our visits to local primary schools, we developed what we call the 'seed dispersal game', where we have multiple teams competing in a relay race to move as many beans from a "tree" to their team's "nest" as they can using only a plastic spoon. We use the mess they make all over the ground to show how birds are important for moving seeds and helping to grow forests.

The future is bit uncertain for me at this time. Funding and research positions can both be scarce or otherwise scattered in unpredictable places. So, there is no telling where I will end up next. I think there are ample opportunities to build on my growing expertise of seed dispersal for my future career. Currently, I am expecting to possibly find a position where I can do post-doctoral research focused on animal movement modelling. Ultimately, I hope to pursue a job as either university faculty or nonprofit administration or perhaps some combination of the two. For the past two years, I have been working with several other individuals to start a nonprofit foundation in the Dominican Republic. We have outlined a set of objectives that would include work on small-scale forest restoration, private nature preserve management, a bird observatory, and collaboration with several Dominican universities. Although, it is not a fully fledged organization just yet, we have already begun taking on some small projects and outreach efforts. I have high hopes, and indeed a certain degree of confidence, that I will be returning before long to do more work here.

Meeting up with former mentor Dr. Mario Pesendorfer, nearly 7 years after first working together, in Ramnagar, India for an international conference focused on seed dispersal. We were both featured in the same symposium session.

As the first official act of our local nonprofit organization, Fundación Verde Soy, we used a grant from Optics for the Tropics to award binoculars to aspiring birders and ornithologists who participated in this past winter's Audubon Christmas Birdcount in Jarabacoa, Dominican Republic.
The Office of Science Graduate Student Research (SCGSR) program is now accepting applications for the 2020 Solicitation 1. Applications are due 5:00pm Eastern Time on Wednesday, May 20, 2020. The original deadline has been extended to help accommodate interruptions from the COVID-19 pandemic.

Four new transdisciplinary research areas for encouraging graduate training activities at the convergence of multiple disciplines and communities, including Microelectronics, Data Science, Fundamental Symmetries, and Accelerator Science, are offered. Applications in these areas are strongly encouraged. Detailed information about the program, including eligibility requirements and access to the online application system, can be found at: https://science.osti.gov/wdts/scgsr/.

The SCGSR program supports supplemental awards to outstanding U.S. graduate students to conduct part of their graduate thesis research at a DOE national laboratory/facility in collaboration with a DOE laboratory scientist for a period of 3 to 12 consecutive months—with the goal of preparing graduate students for scientific and technical careers critically important to the DOE Office of Science mission.

Researchers have spotted and documented email phishing campaigns targeting a variety of industries with emails impersonating Zoom and Cisco (WebEx).

Video conferencing has become very popular very quickly. Attackers have noticed and moved to capitalize on it by using video conferencing brands as a lure for malware, and also for credential phishing, in particular to steal Zoom and WebEx credentials.

Some of the email tricks are old, but can easily fool us under the right circumstances. For example, there are emails that welcome users to their new Zoom or WebEx account and requests them to activate their account. There are also emails that claim that the user has missed a scheduled Zoom conference meeting. The phony link then phishes for user credentials.

Be aware of email malware delivery campaigns that do not impersonate WebEx or Zoom or other tools directly, but do exploit their widespread use. The emails are made to look as if they are coming from a client, a vendor or a business associate who say they are available for a video call, but the email contains booby-trapped attachments.

odu.edu/graduateschool
Ren-Neasha R. Blake, Ph.D. Student, Public Administration and Policy

Background: I am from Jamaica, the “Land of Wood and Water.” This description suits my island-home as it is washed by the Caribbean Sea, houses countless rivers and streams in every nook and cranny (discreet locations), and is lush, green, and serene. I consider myself a cosmopolitan country girl, meaning, I am a country girl at heart who is willing to explore the many wonders of the world. Because of this mindset, I applied for international scholarships to pursue a doctorate. After all, traveling for school would offer me the opportunities to experience new cultures, grow, and most importantly, leave the comfort of my home which would bolster self-discipline. I am frequently asked, “what made Old Dominion University (ODU) stand out?” I usually chuckle and respond, “I chose Fulbright, then ODU chose me.” This was ordained.

Choosing ODU and Vice Versa: ODU was not on my initial list of schools, however, I came here and never once reflected in disappointment. My choice amazed many, especially since my mentor, Dr. Omar Hawthorne, is an ODU alumna. This is destiny. You see, I believe in destiny and God’s purpose for my life. ODU, through Fulbright and the U.S. Embassy in Kingston, Jamaica, offered me a full tuition waiver, an opportunity that other universities did not provide. I took this as a positive signal and later went on to research the public administration and policy program offered here. I contacted the Graduate Program Director (GPD), and each email to the GPD would leave me in amazement - such a kind, friendly, welcoming tone that I felt through our virtual communications. I felt at home at ODU, even before I arrived here in August 2019.

Falling in love with ODU’s Campus: You can imagine that as a country girl, I was impressed by the nature-filled ambiance of ODU’s main campus. Wow, I thought, while spending hours admiring the fountains, colorful trees, and the squirrels running about. My most memorable first experience on campus was mid-way admiring its lushness. I met Nikita, a Fulbrighter from Estonia while walking to the International Students’ Orientation. We connected instantly and shared experiences from our first few days on campus. Nikita and I later presented at ODU’s Fulbright reception and we traveled to Jamaica over the Christmas break. I had the pleasure of hosting him and his beautiful fiancé for a sunny, fun-filled day in Ocho Rios.
Integrating on Campus: It was not hard integrating on campus. I researched the students’ clubs and societies beforehand and even signed up as a Global Monarch Club (GMC) mentee whilst still being in Jamaica. I am naturally outgoing and involved in the wider community, and I brought those qualities here with me. Currently, I am a GMC mentor, Director of Communications for the Global Student Friendship (GSF), and have volunteered for a myriad of activities on and off-campus. I constantly feel welcomed by my GMC and GSF family, they are all amazing people who genuinely care about the well-being of all students at ODU. I must mention Dr. Kurnia Foe. He has been a guiding light for internationals at ODU and is always willing to help. The most rewarding volunteer experience since being here would be when I shared my Jamaican culture with a group of pre-teens at a local school in Norfolk. These students were bright and outspoken. They already knew aspects of Jamaican culture and we sang Bob Marley tunes like ‘One Love’ and ‘Three Little Birds.’ Altogether, I was happy that I could share a little slice of Jamaica, enough to get reactions like “Wow, that looks delicious,” “My mom/dad makes that,” or “I would like to visit Jamaica one day.”

Tips for International Students on Campus: International students should continue to track their academic progress and forge meaningful relationships on campus. For example, I have a point person in all the relevant offices on campus (Sharon Pitney is the best Fulbright Laison!). Also, Dr. Wie Yusuf has been a great mentor. She is a professor in our school who is always an email away for sound advice. These relationships have reduced time-wasting and increased my compliance with Fulbright’s program terms. Also, it is important to integrate and participate in the activities planned by the Offices of International Programs and Intercultural Relations. The helpful staff in these offices coordinate both in-person and virtual activities.

Two fundamental things that worked for me were 1. Getting to know Jamaicans on campus, Joedian, Leon, and Kashmayne, and 2. Building close bonds with my colleagues Saige, Norah, Tihara, Oge, and Taiwo (#supercohort). These interactions have kept homesickness at a minimum. Moving to a new place will never be easy, however, socializing can help to make this transition smoother. Most importantly, stay in touch with friends and family back in your home country, continue to prepare your favorite meals, and keep your eyes, on the prize - vision boarding helps with this portion.

What encouraged you to choose your current field? Public policy is like the bread and butter of government and is at the center of human welfare. I knew that I would pursue a people-centered career from a tender age. At first, I thought about pursuing law and was admitted to law school. Things changed, priorities shifted, and I pursued sociology and social anthropology instead. Through that area of study, I developed a passion for research and started a business. Thereafter, I researched areas that could complement my first degree, whilst maintaining the human component. I am an in-the-field, solutions-driven person, so I knew that a focus on e-government would exercise my mind, keep me moving, and all while I am able to explore a global public policy interest area.

I am currently researching e-resilience, the e-government paradox in developing countries, and the web-based geographical information systems (GIS). In February, my colleagues and I attended the Virginia Sea Grant (V ASG) Graduate Symposium, where we presented posters on similar topics. If I was given additional money for funding, I would research more into cyber insecurity, the e-resilience thrust in developing countries and/or the ways to overcome the challenges/barriers to using technology in emergency management. Emergencies are unpredictable, and we need to be prepared for brisk response and recovery measures (as seen with the current pandemic).

What do you see yourself doing five years from now? In the next five years, I hope to be pursuing my dream job, whilst preparing to nurture a family. I am looking forward to imparting public policy principles through academia, authoring books, spearheading policy projects, and running a not-for-profit organization. I aspire to continue being my best self; seeking progress over perfection. Through it all, I will forever have my ODU family, and the experiences gained here etched on my heart. #ProudMonarch
HEALTHY CAMPUS: PREScription FOR SuccESs & WELLNESS

Student Engagement and Enrollment Services in partnership with Academic Affairs and the Association of University Administrators is excited to host Old Dominion University’s inaugural annual student success e-conference. We are bringing together University leaders, faculty, and administrators to engage and strategize in supporting student success through health and wellness. Online sessions will be hosted through virtual platforms throughout the week.

REGISTRATION
Opens on May 29th

PROPOSALS
Check website for proposal due date

QUESTIONS?
Contact Judy Luedtke (Conference Committee Chair) at jluedtke@odu.edu.

For more information visit www.odu.edu/ssconference
Md Sharif Ullah, Ph.D. Student, Electrical Engineering

What encouraged you to pursue a graduate education? I did my undergrad in applied physics electronics and Communication Engineering at University of Dhaka. You probably get overwhelmed with the very long name but it was a very old department and very few universities in the world have this department now. With a very vast curriculum, I have been acquainted with advancement of technologies, their history and evolving generations over time. In my senior year while I was about to graduate I was thinking why not go a bit more. The decision came for not to add a layer of honour or anything, it's more about the desire for learning and explore further.

What made Old Dominion University stand out? I first heard about Old Dominion University from one of my seniors from undergrad who was that time a Ph.D. student at ODU. I was surfing different faculty profiles of my interest and really got impressed by the state of art research conducted in diverse fields. Needless to say, ODU is one of the best research universities in the USA.

What encouraged you to choose your current field? My interest in information communication technology has been growing since my junior year. The emergence of the world wide web has had a tremendous impact on our society and day-to-day lifestyles. Despite the tremendous progress with this technology, demands for innovation grow. People are not just satisfied being connected, they want to get updated instantly, want to share even more. It makes the field more challenging and competitive but more opportunity to explore.

What do you like most about ODU? Of course it’s diversity. I always love to meet people, talk to them, and want to know their history and culture. I am particularly grateful to Global Student Friendship (GSF) and Global Monarch Club (GMC) for introducing me with this diverse community through different events right after I came to ODU. I have many friends from different parts of the world, wherever we go we will be always indebted to ODU for this bonding.

What have been your greatest challenges so far? I had knee surgery just after a year I came to ODU. Staying thousands of miles away from home, it was really a tough time. However, because of my friends and all the people around me, I never really felt a single moment of discomfort. I can't put into words what they did for me in that time and I am forever thankful for that.

Describe your awards and/or research: My Ph.D. dissertation involves cybersecurity risk and resiliency analytics for critical infrastructure. The cyber integration of critical infrastructure incorporated with information technology and operational technology imposed a significant risk on the system. My research analyses time varying dependency of different assets and their associated data flows to measure likelihood of threat propagation in the network. Adversarial behavior analysis is also one of my areas of research interest. My Ph.D. dissertation also examines the behavior of more sophisticated adversaries more specifically advanced persistent threat. A comprehensive knowledge about attackers technique and tactic gives the administrator the ability to effectively narrow down the option for security control deployment. Our team led by my supervisor Dr. Sachin Shetty has won the first cyber security research challenge organized by The Electric Power Research Institute (EPRI) and Cyber Resilient Energy Delivery Consortium (CRED). Our approach includes machine learning to characterize attacker's behavior to prevent them and keep electric grid operations and reliability.

What is your philosophy of teaching and learning? I would like to think in a way that my philosophy is “Whatever you teach or learn, try to get a connection with real world, it could be a problem, a solution or a vision.”

odu.edu/graduateschool
How would your professors and colleagues describe you? I think they would describe me as persistent. (Fun fact: my research involves persistent attacks as well). Whatever project I have been assigned I like to keep myself on the track regardless of the time it takes and challenges encountered to complete it.

What are your hobbies? Traveling is my hobby. I want to see every corner of the world, not just scenic beauty or beautiful landscapes, but I want to see people, observe their lifestyle, and of course try their food.

If you were given additional funding, what would you research and how? If I were given additional money I would invest it to initiate a transition to practice program. There have been a lot of innovative research done in different labs in the USA. Rather than just keep writing about it in research papers (which is also important for knowledge exchange) I want to make them ready to be piloted in an operational environment.

Who are some guiding or influential figures in your life? My father is the most influential figure in my life. He took actively took part in the Bangladesh Liberation War in 1971. I am really proud of him. He always supported me in every academic and professional choice I have taken, often telling me to set a goal, achieve it step by step, be focused, and of course be honest in my intentions.

What do you like most about your research or feel will be its largest implication(s)? My research involves critical infrastructure cyber resilience analytics. Critical infrastructures form the lifeline of the modern society. Any disruption in major critical infrastructures like the electric grid, energy sector, healthcare, or transportation could impact a nation, society, and all people. I hope my research will improve the robustness of the system and ensure more stability against current and emerging cyber threats.

What do you feel could be improved at ODU? In my experience, I think students would benefit more if career fairs incorporated more diverse companies. So far I have seen local companies and federal organizations working in the region participating. in our fairs, but we can reach more broadly. ODU should take initiative to bring even larger companies (tech and non-tech) to be part of it. The starting point could be contacting with alumni who are working in different fields throughout the country.

Tell us about your vision of the field: where do you think the field is heading in the next five years? There is a saying in the security field, “Nothing is secure.” Whatever control you put in the system, cyber attackers always find a way to breach. As things get more automated day by day, potential cyber threats seem like a never ending game. With more computational power and data it is getting more interesting and challenging over time.

What are some of your other activities?
1. During my time at ODU, I have been part of different summer schools and workshops like Hampton Roads Radio Spectrum and Wireless Communication Workshop and Summer School (HRSWC), GenCyber Summer Camp, etc. These were very fulfilling experiences for me and gave me the confidence of being able to mentor students successfully and help them get closer to their goals in their chosen degrees of study.
2. I am Vice President of the ODU Bangladeshi Student Association. Within this organization we try to contribute and enrich the cultural diversity at ODU. We recently organized our inaugural event at ODU to celebrate International Mother Language Day which is closely tied to our Bengali language and its history of recognition.

odu.edu/graduateschool
ODU COVID-19 ARCHIVE

Share your pandemic experience and become a part of history.

TINYURL.COM/COVID19ARCHIVE

ODU Special Collections and University Archives are collecting journals, art, poetry, photographs and more to document the COVID-19 global pandemic. All members of the Monarch community and Hampton Roads residents are encouraged to submit materials.

odu.edu/graduateschool
Old Dominion University (ODU) is offering several exciting course opportunities leading to master’s degrees and graduate certificates. Course content will be customized by allowing students to focus on solving work–related problems and/or research in teams. Flexible delivery modes combined with on–site faculty mentoring and advising are designed to accommodate students’ work–life demands.

**Realize Your Higher Education Goals at the Wallops Complex in Summer and Fall 2020!**

**Some of Our Course Offerings:**

**AEROSPACE ENGINEERING MS**
- **Summer 2020**
  - MAE 605: Advanced Classical Thermodynamics
  - MAE 560: Introduction to Space Systems Engineering
  - MAE 604: Analytical Dynamics

**ENGINEERING MANAGEMENT MS/ Project Management Graduate Certificate**
- ENMA 604: Project Management
- ENMA 510: Agile Project Management
- ENMA 606: Engineering Law
- ENMA 614: Quality Systems Design
- ENMA 605: Advanced Classical Thermodynamics

**AEROSPACE ENGINEERING MS**
- **Fall 2020**
  - MAE 506: Vibrations
  - MAE 560: Introduction to Space Systems Engineering
  - MAE 604: Analytical Dynamics

**ENGINEERING MANAGEMENT MS/ Project Management Graduate Certificate**
- ENMA 601: Analysis of Organizational Systems
- ENMA 780: Leadership for Engineering Managers

**Make Your Move!**

Please email engineer@odu.edu for additional course information.

odu.edu/graduateschool
About

Find Graduate School News Online at: www.odu.edu/graduateschool, as well as updates on our Facebook, LinkedIn, and Twitter pages.

ODU doctoral candidate, Xavier-Lewis Palmer, compiled and edited this newsletter with help from Dr. Robert Wojtowicz, Dr. Bryan Porter, Missy Barber, Allison Barber, and Courtney Nishnick in the Graduate School.

If you have an idea, event, news, or anything otherwise notable that you would like to share, contact Xavier-Lewis at xpalmer@odu.edu.

(虚拟)瑜伽课

艺术瑜伽

每周一，五月十一日、十八日、二十五日，上午十时整。

费用：免费；欢迎捐款（请参见注册页面）

平台：Facebook/Instagram现场直播

点击这里注册。

在五月的每周一，我们都会提供通过直播的方式在巴里艺术博物馆提供的瑜伽课程，由Sky是极限瑜伽的Danielle Collinsworth教授。这五十分钟的瑜伽课程将由Danielle Collinsworth教授带领，通过一系列的姿势，其中包括许多以巴里艺术博物馆藏品为灵感的姿势。

(虚拟)Pecha Kucha夜

Pecha Kucha Night hosted by the Barry Art Museum

Thursday, May 14th, 8 p.m. (Register Here or Thursday, May 28th, 8 p.m. (Register Here) FREE

平台：Zoom

我们都需要社群！加入我们的轻松虚拟创作展示会，通过Zoom。它是一个机会，让你遇到其他思考者、创造者和行动者。如果你是创造者，这就是为你准备的。你将获得两分钟和五张幻灯片。很短，很有趣，是为你设计的，帮你了解在隔离期间，谁在他们的车库里在疯狂地画画、雕刻、制作照片或削木头。向任何表达形式开放，无论是音乐、写作、瑜伽、建筑设计、玻璃制品，你想到的任何东西。为了参加，只需将你的五张图像加载到你的电脑上，并在你在你的轮次时分享你的屏幕。最后，我们会有一个共同的问答环节，连接到巴里艺术博物馆的艺术家。