

## **STEM Bridge Program Report**

### **Eric Mung'aũ Preston**

My interviewee was Vukica Jovanivić. Dr. Jovanivić has been with Old Dominion University (ODU) for 12 years and is a Professor and Chair in the Department of Engineering Technology. She has an M.Sc. in Industrial Engineering from the University of Novi Sad and a Ph.D. in Mechanical Engineering Technology from Purdue University. Her research and knowledge cover areas such as robotics and digital threads.

Dr. Jovanivić's experience with ODU has differed from previous institutions, highlighting the increase in non-traditional students and resources. She has supported students' research and encouraged enrollment into graduate school. Her current research is on digital threads and improving older mechanical systems.

I've learned much about NASA's mission directorates. Aeronautics, Science, and Space Technology utilize research to lead great innovations. This includes the Tailored Arrival Manager for flight operations, the NASA-ISRO Synthetic Aperture Radar to benefit climatology, and the Advanced Composite Solar Sail System to discontinue rocket propellant. Exploration Systems, Mission Support, and Space Operations support current missions and provide opportunities to be part of NASA's mission. While Mission Support is a network for executing missions, Exploration Systems and Space Operations are involved in the "Humans in Space" project, which connects NASA to the private sector and gets people involved in space exploration.

To conclude, both Dr. Jovanivić's interview and NASA mission directorate research have provided insight into Engineering Technology research and NASA's plans. Additionally, out of

all mission directorates, as a cybersecurity major, I would be interested in pursuing Space Technology research.