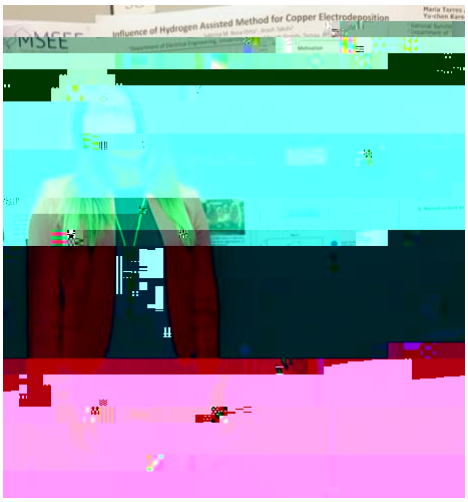
Congratulations to Sabrina M. Rosa-Ortiz on being awarded the 2020-2021 Intel Graduate SHPE Scholarship in the amount of $10,000

Sabrina is a Doctoral Candidate in the Department of Electrical Engineering at the University of South Florida (USF) under the supervision of Dr. Arash Takshi. Sabrina's main research is the study of copper electrodeposition assisted by hydrogen evolution for wearable electronics. This study focuses on studying an innovative method, called hydrogen evolution assisted (HEA) electroplating, for a rapid and localized electrochemical copper deposition that can be applied for the integration of electronic circuits to fabrics for developing smart textiles (e-textile) and advanced wearable electronics. Among different technologies and approaches, patterning a conductive circuit layout on fabrics and fibers by copper electrodeposition has not been much studied mainly due to its slow growth rate and low mechanical flexibility of copper. However, their new HEA electroplating method addresses both issues. This opens exciting avenues for integrated circuits (ICs) into textiles for the development of wearable electronics. Working with Dr. Takshi, Sabrina's research has resulted in an NSF grant award, a first-author journal publication, several conference papers, and one patent application.



Sabrina earned a B.S. in Physics Applied to Electronics from the University of Puerto Rico-Humacao in 2016. Her USF graduate research has been supported by the NSF Florida-Georgia Louis Stokes Alliance for Minority Participation (FGLSAMP) Bridge to the Doctorate Activity, Alfred P. Sloan Foundation University Center of Exemplary Mentoring (UCEM), and the Hispanic Scholar Fund. She has been involved with the Boricua Student Association (BSA) taking the role of Vice President. In 2019, Sabrina joined the Surface Mount Technology Association (SMTA) and stepped up to take the responsibility as the President of the SMTA student chapter at USF. Sabrina says, "This leadership position has allowed me to present my work at conferences such as SMTA Pan Pacific and the SMTA International Conference". She has also presented at annual meetings of the Electrochemical Society (2019), American Chemical Society (2019), and Materials Research Society (2017).

In addition to her campus activities, Sabrina has been very active in pursuing professional opportunities, including a user proposal for research-training at Brookhaven National Laboratory and international collaborations with the University of Wollongong in Australia. For Sabrina, "it is important to expand your horizons, learn new techniques, develop and explore yourself in different aspects to help you grow professionally and personally."

Becoming a 2020-2021 Scholar SHPE Recipient will allow Sabrina to fulfill her goals towards development as a professional and as a researcher giving increased opportunities to aim even higher as a future leader and role model for young women and Hispanic students.

This is the largest SHPE scholar sponsorship to date provided by Intel and Sabrina was one of the 25 recipients. This scholarship will also serve as financial support in attending the SHPE's 2020 National Convention, to be hosted in Denver, Colorado.

We are extremely proud of all the hard work and dedication shown by Sabrina and the support provided by her mentors. We cannot wait to continue witnessing her continuous success! Go Bulls!