



Student Name
Eduardo Beaz Rivera
Supervisor
Ing. Víctor S. Rivera
Company
Visional Technology

Visional Technology is a company that offers specialized engineering services in the fields of dimensional metrology and inspection to manufacturing companies.







During the Industry Technical Internship, students will have a real-world full-time technical experience with a company or institution in areas where optics and photonics are enabling technologies. Students will acquire technical experience and skills in a manufacturing, industrial, or research setting.

Equal Opportunity: Universidad Metropolitana (UMET) provides equal education and employment opportunities and does not discriminate on the basis of race, color, religion, sex, gender, gender identity, real or perceived sexual orientation, national origin, military status, status as a protected veteran, physical or mental disability, social condition, age, maritial status, political ideologies, domestic violence or sexual attack victim status, or any other characteristic protected by federal, state, or local law. Disabilities: Services are available to students who may need accommodations, interpreters, and/or specialized equipment. All student requests are dealt in confidential manner. The Certificate in Photonics & Lasers Technical Specialist is part of New Horizons: Puerto Rico Lasers and Photonics Career Pathways, a project funded by the United States Department of Labor - Employment and Training Administration - Trade Adjustment Assistance Community College and Career Training Grant (TAACCCT) Round 4. TC-26472-14-60-A-72. The program materials were created by Puerto Rico Photonics Institute (PRPI), UMET and do not necessarily reflect the official position of the U.S. Department of Labor.



















Student Name
Jean C. Díaz Rosario
Supervisor
Ing. Francisco Rivera
Company
Puerto Rico Photonics
Institute

Puerto Rico Photonics Institute (PRPI) is the first institute in Puerto Rico and the Caribbean to specialize in research and education in optics and photonics (O&P). Its laboratories are located in the REDI Building at the Barceloneta Science Park. PRPI will carry out research, provide education and training, provide services to industry, research and do public outreach in this vital area of modern science and technology.







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Student Name
Betzaida Aponte
Hernández
Supervisor
Dr. Edgard G. Rivera
Company
USRA Arecibo
Obstervatory

The Arecibo Observatory is a scientific research facility in which it specializes in studies of radio astronomy, astronomy with radar and atmospheric science. The observatory is best known for its huge 305-meter diameter radio telescope, which until the year 2016 was the largest in the world and remains the most powerful radio telescope. USRA at Arecibo Observatory: Characterize physical properties of the NEA asteroid 2012 DR32 and process the signal to better its astrometry.







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Student Name
Carlos M. Díaz Marrero
Supervisor
Ing. Héctor Jaramillo
Mentor
Christopher Rosario
Company
Liberty

Liberty is the largest international cable company in the world with operations in 14 countries. This company connects people to the digital world. Television, broadband internet and telephone services come through next-generation networks and innovative technology platforms that connect 25 million subscribers to nearly 48 million television, broadband internet and telephone services.







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Student Name Carlos Santiago Varela **Supervisor** Ing. Héctor Jaramillo **Mentor** Luis Adames **Company** Liberty

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Student Name Walter Tischer **Supervisor** Dr. Jens Lautenbach **Company** SRI Arecibo Observatory

The assigned project focuses on the installation of LIDAR, which is responsible for atmospheric studies to determine the composition of the atmosphere. The laser of the LIDAR emits pulses that are reflected of the particles in the atmosphere and those reflections are observed with a telescope to channel them to a photo-detector to be able to be analyzed.







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