# Shayla Sawyer

**Professor, Electrical, Computer, and Systems Engineering at Rensselaer Polytechnic Institute**
Troy, NY, US

Focused on engineering processes and potential applications of hybrid inorganic/organic materials for optoelectronic devices and sensors

## Biography

Shayla Sawyer is an associate professor in the Electrical, Computer, and Systems Engineering Department at Rensselaer Polytechnic Institute. Her Nano-Bio Optoelectronics research program expands the fundamental understanding, engineering processes, and potential applications of hybrid inorganic/organic materials for optoelectronic devices and sensors. This includes the fabrication of nanomaterials from bacteria, fabrication in a solution process, and the development of optoelectronic sensors and complimentary systems. The optoelectronic devices are comprised of hybrid inorganic/organic materials what may include semiconductor metal oxide nanostructures, conductive polymers, conductive nanostructures, and bio-chemical solutions. Her overall research goal is aimed at effectively fabricating and characterizing novel materials and sensors with consideration of systems that require sensitivity and/or selectivity to bring quantitative measurements in typically qualitative worlds. NSF Lighting Enabled Systems and Applications Research Center, NSF Divison of Biological Infrastructure, National Security Technologies/Department of Energy, NSF Division on Research and Learning, and the NSF GK-12 Community Situated Research Center are a few recent funding resources for her work.

## Areas of Expertise

Nano-Bio Optoelectronics, Sensor Development, Hybrid Nanomaterials, Ultraviolet Photodetectors

## Education

**Rensselaer Polytechnic Institute**
PhD Electrical Engineering

**Hampton University**
BS Electrical Engineering