## Department of Sustainable Technology & the Built Environment Graduate Student Research Titles

## 2016-2017

AUTHOR	TITLE
Reid Anderson	An Evaluative Case Study of HVAC System Performance in a Historic Structure: Expected and Actual HVAC System Performance at the Hiddenite Arts and Heritage Center
Andy Goodnight	Thermal Massing Qualities of Insulated Decking Systems Compared to Slab on Grade
Connor Ballard	Electricians and the North Carolina Photovoltaic Industry: The Perceptions, Knowledge, and Experiences of Electricians Regarding Photovoltaics
Audrey Cook	Assessment of the Appalachian State University Solar Resource using GIS-based Site Selection and Prioritization of ASUREI Photovoltaic Projects
Emil deJong	Greywater Reuse System Automation: Analyzing the Feasibility of Automating a Recirculating Vertical Flow Constructed Wetland Greywater Treatment System in Hair Salons
Jakob Sjostrand	Empirical Analysis of Short-Term Variability from Utility-Scale Solar Farms in North Carolina (THESIS)
Nathan Anderson	Western North Carolina Green Building Council Green Built Certification: Analysis of Green Building Trends
John O'Neal	<i>Open-Source Photosynthetic Light Sensor to Fine-Tune Greenhouse Plant Lighting and Aquaponic Weather Automation: PAR + Weather + Arduino = PAWRduino</i>

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## 2016-2017

Stephen Guin	Analysis of BIM Use in the Workplace by Alumni of Appalachian State University's Building Science Program
Christan Williams	Defining a Rational Path Forward For Renewable Energy Certificates in the United States
Jared Sanborn	The Effects of Biochar as a Soil Amendment on Soil Quality and Plant Growth: A Study for the North Carolina High Country (THESIS)
Robb O'Brien	Identification of Optimal Sites for Maximum Productivity from Utility-Scale Hybrid PV/Wind Systems (THESIS)
Sarah Hooper	Daylighting: An Analysis of the Indoor Environmental Quality of Appalachian State University Classrooms (THESIS)
Tyler Boyes	Residential Rainscreen Cladding Systems: An Experimental Investigation in Boone, North Carolina
Zachary Sprau	Self-Consumption PV System Effects on Residential Grid Imports and Exports (THESIS)
Leah Simmerman	Abbreviated Historical Structure Report on the Hiddenite Arts and Heritage Center in Hiddenite, North Carolina (THESIS)