

ECE Capstone Program
Spring 2018
Project Abstract & Info

Please provide the following information to be shared with on capstone information exchange platform:

1. Project number:

60

2. Project title (as will appear on the poster):

Smart Sensing for Computer Racks

3. Team members:

Lorelie Erika Arrogante, Antoine Haddad, Vikram Krishna, David Salsburg

4. Adviser(s) name(s):

Hana Godrich

5. Up to 5 keywords that will help to classify the project scope:

Project Management, Quality Assurance, Cost Efficiency, Risk Mitigation, Performance Analysis

6. Project abstract (up to 250 words) to be shared with judges:

Data centers around the world host hundreds of thousands of computers. These computers are much smaller than home PCs, and many are placed in computer racks. These racks generate massive heat, and require specialized cooling solutions to prevent the computer parts from burning out. The purpose of this project is to resolve this problem by implementing sensors to track and monitor temperature within a computer rack. To accomplish this, the team must understand how computer racks are cooled, learn where the sensors must be placed to mitigate the risk of misleading readings, track the performance of the sensors to ensure quality and accuracy, and leverage cost efficiency with performance efficacy. The major benefits of this project include extending the life of equipment, reducing power consumption from AC systems and increasing energy efficiency.