

# **Efficient Controls for Indoor Air Quality**

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## **ABSTRACT**

The quality of indoor air affects individual health, cognizance, and performance. A research project, funded by NYSERDA and the Department of Energy and administered through the Syracuse Center of Excellence was collaboratively executed by the Syracuse University Mechanical Engineering department and Cortland Research, LLC, along with assistance and facilities provided by the Syracuse Center of Excellence. This study shows how monitoring and controlling the comfort within a personal space, utilizing commercially viable products, can provide adequate air quality and comfortable temperatures. Substantial energy savings are shown by the utilization of this sensor/control/ HVAC architecture.

## **BIOGRAPHY**

Stephen McMahon is the founder and General Manager of Cortland Research, LLC. Starting a career as an electrician and becoming a licensed electrical contractor, he worked through college and achieved a BSEE in electrical engineering at the Watson School at Binghamton University. Hired by Sensis Corporation as an electronic design engineer, eventually earning his master's degree in electrical and computer engineering at the University of Massachusetts, Amherst. He was named on 2 patents while focusing on RF, antenna and systems design at Sensis. He has received a patent while at Cortland Research and has another patent pending. He has been involved in his local community through participation on school committees and sponsors an annual science and engineering awards for high school students.