

Portable Air Quality Monitor and Wireless Sensor Network for Cabin Monitoring

The design of a portable air quality monitoring system and how it has been used to study aircraft cabin operating conditions are described. The system is designed to be used as a wireless sensor node allowing the sensor unit to store collected data to local flash memory and deliver data wirelessly to network connected computers or data sink nodes. Examples of data that have been collected are presented and a prototype of a wireless sensor network for smart cabin sensing is discussed. This research is funded as part of the FAA Center of Excellence for Research in the Intermodal Transport Environment.