
APS1013 Applying Innovation in Engineering – Final Team Projects, Fall 2011

Development of Business and Product Strategy for Hospital Sterilization Tracking System

Hospital-acquired infections (HAI), are infections originating in a hospital and currently rank as the fourth leading cause of death in Canada. Our client is a privately held Canadian company, which aims to prevent the spread of HAIs by implementing state of the art disease surveillance systems. One effective precaution to prevent infection spread is to wipe all hospital equipment with Virox™ wipes, which are made of hydrogen peroxide (H₂O₂) and water. The task presented is to make the tracking of this process as automated as possible. A comprehensive “state of the art” analysis detailing commercially available H₂O₂ detectors was conducted by our team and technologies were evaluated according to their constructability, operability, maintenance, and safety (COMS). It was decided that electrochemical sensors were the best choice based on a weighted analysis. Possible suppliers were also subsequently recommended to the client. Non-technical analyses, which included stakeholder management and risk management frameworks were included as part of a final recommendation to the client.