Development of janitors' workload calculator

Invited Lectures

Faculty: Stephen Bao

This lecture presents the development of a Workload Calculator specific to the commercial office building janitorial service industry. This is developed due to the increased need for addressing the high workload issues and increased work-related injury claims in the industry. Actual field data were collected to quantify various workload measures and the risks are evaluated with widely used ergonomics job evaluation methods. These workload measures include work pace (based on ISSA standard times), overall workload (steps walked and energy expenditure demands, hand/wrist, shoulder and low back biomechanical exposures). This developed workload calculator can provide industrial practitioners with a tool to estimate the workload of planned or existing jobs. It can also help EHS, safety and ergonomics practitioners to identify issues and develop focused interventions. It can also provide cleaning equipment manufacturers and cleaning method developers means to identify issues in the current system and develop new equipment and methods for improvement.