Seminar

"Design and development of an automated medical equipment replacement planning system for healthcare facilities"

By

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United Technologies Building, Room 150
1:00-2:00 pm

Abstract:
Replacement requests for healthcare technology and equipment in hospitals are often managed without the benefit of factual, safety, technical, financial and performance data. An automated Equipment Replacement Planning System (ERPS) has been developed to identify medical equipment most in need of replacement in order to optimize the utilization of capital budget resources, the attention to patient safety and efficiency of the healthcare process. Rules have been developed to assist in determining which equipment should be prioritized for replacement. The ERPS consists of a skeleton database in which the replacement rules have been programmed. Data from a Clinical Engineering department's equipment management database are imported into the skeleton database of the ERPS. The imported data are evaluated by a program from the replacement-rule base to produce a Relative Replacement Number (RRN) for each medical device in the inventory of the hospital. This number enables prioritization of all medical devices identifying the recommended order of replacement. The results are compared with replacement priorities obtained from traditional manual methods. This ERPS is designed such that replacement criteria can be custom edited for each hospital that will use the system, according to its own requirements and restrictions.