Operations Research Seminar

Embedded Operations Research

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Many embedded applications, such as avionics or test equipment, require decisions to be made in real time. Since most engineers lack training in optimization and/or statistics, they tend to implement heuristics. Most often, Operations Research techniques can provide better solutions: more rigorous, faster, and optimal.

Presented are a number of real world examples of embedded decision algorithms based on OR techniques, such as:

1. Optimization: Weapon Target Assignment, Radar Track Update, Helicopter Rotor Track and Balance
2. System Modeling: Wire Diagnostics, Radar Track Propagation, Mechanical Component Remaining Useful Life Estimation
3. Statistics: Gear Box Component Condition Monitoring, Aircraft Regime Recognition for Structural Health Monitoring

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Dr. Bechhoefer is a Fellow at Goodrich Corporation, and an NPS graduate in Operations Research.

Date: Wednesday, November 19, 2008
Time: 12:00-12:50
Location: GL-115