

Sandia/EPA TEVA-SPOT Water Security Team Chosen as Finalist for 2008 Edelman Award Competition

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A team of researchers from Sandia National Laboratories and the Environmental Protection Agency (EPA), along with researchers from additional organizations, were recently named as one of 5 finalists for the 2008 Franz Edelman Award for Achievement in Operations Research and the Management Sciences. This award, given out annually by the Institute for Operations Research and the Management Sciences (INFORMS) is one of the most prestigious awards in the field of Operations Research and recent winners include General Motors, IBM and AT&T. The winner will be announced at the INFORMS 2008 Meeting on Practice in Baltimore this spring.

This team came together as part of the EPA's Threat Ensemble Vulnerability Assessment (TEVA) program in order to work on the problem of developing contamination warning systems to counter threats against these systems. The outcome of this effort is the Sensor Placement Optimization Tool (TEVA-SPOT), which uses sensor placement algorithms to design contaminant warning systems for water distribution systems. This new tool has already revolutionized the field of sensor placement for these systems, enabling the analysis of very large water networks that were previously not amenable to sensor placement analysis. TEVA-SPOT has been used by the EPA's Water Security Initiative to design sensor placements for networks with over 40,000 junctions, which are being used to deploy contaminant warning systems in several large U.S. water utilities.

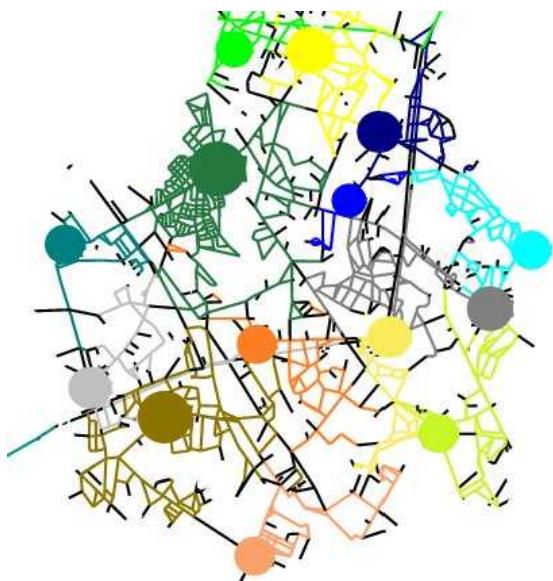


Figure 1 The figure shows sensor locations (dots) recommended by TEVA SPOT to be added to a water utility distribution system (lines).

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