

**Real-Time Transit Vehicle Routing Optimization in Intermodal Emergency Evacuations  
-A Technical Transfer and Research Proposal**

**Investigators:**

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\$100, 905

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\$12,898 from MSU in-kind

**Project description:**

With the increased focus on evacuating transit dependent people in emergency situations, the existing commercial software for transit operations is proving to be incapable of handling the transit evacuation operations in uncertain conditions. The objective of this project is to provide transit agencies a real-time transit vehicle operation and management system for emergency evacuation in an intermodal transportation network. Two stage real-time models will be proposed and algorithms will be developed as an realistic solution. The one stage of the transit model will be tested and deployed and then the two stage intermodal model will be developed and evaluated. The models and algorithms will be integrated into “SmartEvac”, a tool that will be available to all approved Transit agencies. The tool will feature optimized routing plans and will be pushed directly to the transit vehicles via the smart phones.