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Who are RRI's Partners?



- The Center of Excellence for Remote and Medically Under Served Areas (CERMUSA) at St. Francis University assesses communications for delivering emergency services.



- The U.S. Army Edgewood Chemical Biological Center (ECBC) studies responses to chemical, biological, radiation and nuclear events.



- NJ Business Force (NJBF) at the New Jersey Institute of Technology (NJIT) addresses emergency event implications for the commercial and non-profit sectors.



- The Northeast Regional Response Command (NRRRC) in the U.S. Army supplies communications for military activities globally.



- Steven's Institute of Technology is a premier private coeducational institution focused on research and entrepreneurship.



- Penn State Electro-Optics Center (PSU-EOC) serves as a national resource to advance technologies by partnering with government.

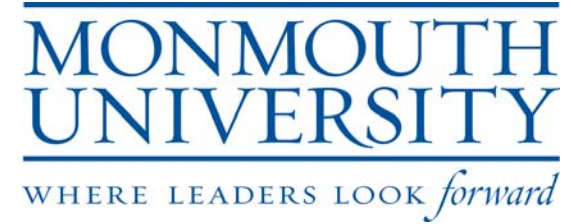
RRI Publications

Since its inception in August 2004, the RRI research endeavors resulted in 22 published peer-reviewed papers, 9 research presentations, and 7 successfully defended masters' theses. These research efforts relate to topics in homeland security and first responder/incident command decision making, including workflow modeling and analysis for decision support, RFID-based innovative information technology applications, and other low-cost technologies for use in emergency response and incident command, information resource trust management, as well as the use of the Markov Chain Model for epidemics. Some publications examples follow.

- “Dynamic Workflow Modeling and Verification”
By: Jiacun Wang and Daniela Rosca
- “RFID – based Tag-Along Displays for Incident Command System Workflow Management”
By: Lauren C. Landrigan; Allen E. Milewski; Robert M. Kelly; and Jiacun Wang
- “EPC Workflow Model to WIFA Model Conversion”
By: Anni Tsai; Jiacun Wang; William Tepfenhart; and Daniela Rosca
- “Incident Command Systems Resource-Constrained Workflow Modeling and Its Application to Military Command and Control Decisions”
By: Jiacun Wang, Anni Tsai, and Daniela Rosca
- “Workflow Management Tool Support for Incident Command Systems”
By: Michael Stoute; Jiacun Wang, IEEE Senior Member; Daniela Rosca; William Tepfenhart; Allen Milewski

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Rapid Response Institute 6th Anniversary “A Snapshot”

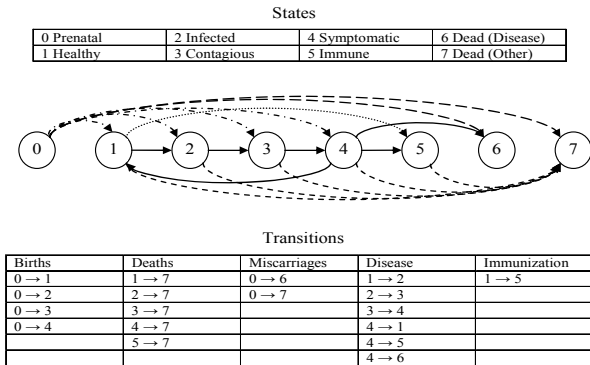


Monmouth University's Rapid Response Institute (RRI) celebrated its 6th anniversary. Thanks to the support of President Paul Gaffney II and the guidance of its sponsor, the Edgewood Chemical and Biological Command (ECBC), RRI has been able to make many contributions in applied research in the area of emergency response. Under the leadership of RRI's Director, Dr. Barbara T. Reagor, students and professors have come together and worked on numerous projects and helped produce innovative and useful deliverables. An effective snapshot of RRI on its 6th anniversary is a summary of its achievements.

Epidemiological Modeling (The Epi Model):

The "Epi Model" was developed to help various government and non-government agencies make preparations by mobilizing resources to prevent and control the expansion of an epidemic by curbing the ingress and egress of people from infected locations by launching vaccinations programs and quarantining the suspected. Epimodel simulates an epidemic by mapping the population through seven different states and by tracking the movement of population from one state to another using Markov chains.

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Dynamically Enhanced Command Information Delivery (DECIDE):

DECIDE as a prototype is an information delivery and visualization system which delivers clear and custom formatted information for emergency response leaders. DECIDE provides a framework for displaying the future wealth of data available for



emergency response leaders in ways that maximize their decision making capabilities.

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Joint Mobile Command and Training Center (JMCTC):

The RRI Joint Mobile Command and Training Center truck is used for the testing and deployment of integrated software applications and real-time database systems for effective use in training, exercise, and response to all hazards and real-time support in the event of an emergency to emergency responders and their managers across New Jersey and the country.



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All Hazards Exercise Training Tool (AHETT):

AHETT is an innovative approach to training for emergency management. The tool targets the leaders of a response incident and focuses on the critical quality and timeliness of their decision making. AHETT helps advance critical thinking and allows one to see the impact of his/her decisions.



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Colts Neck High School Exercise (CNHS):

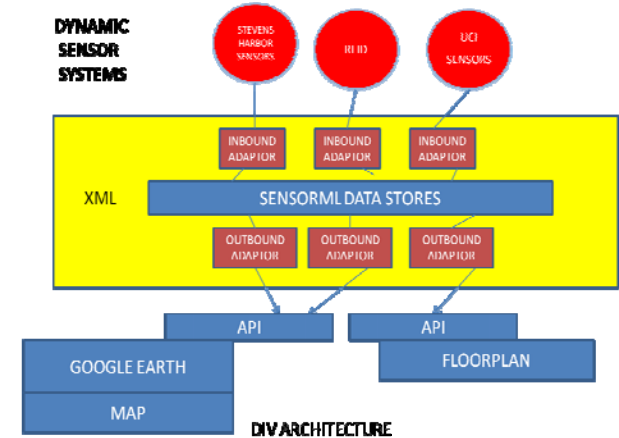
On October 21st of 2009, the MO-CERT (Monmouth County Emergency Response Team) Tactical Dispatch Team gathered to conduct a drill of a terrorist attack in Colts Neck High School. The mission was to respond to a scripted



scenario involving an active shooting incident which turns into a static barricade in one of the classrooms.

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2009-2010 High School Summer Research Program (HSSRP)



The HSSRP has become an annual event at RRI with gifted high school students working on projects of interest to the RRI and creating software system prototypes in a 9-week period. During the last two summers, on a project entitled Dynamic Information Visualization (DIV), the students created prototypes for viewing rich water sensor data and the tracking of first responders in an indoor incident. The objective of this project was to explore the issues associated with mapping dynamic data onto geographic spaces. The HSSRP provided a learning vehicle for AP HS students in a team software development environment. The purpose was to have the students work in a university research setting, and create a functional and useful prototype.

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Rapid Information Sharing for Event

In responding to emergency events, leaders of an incident response team must communicate rapidly and effectively in order to enable timely and accurate decisions. RISES addresses a specific aspect of emergency events by creating communication between military commanders and civilian leaders when an incident involves both military and civilian responding organizations.