



Rapid Response Institute

PAPERS PUBLISHED



I. RESEARCH PAPERS PUBLISHED

1. “An Intuitive Formal Approach to Dynamic Workflow Modeling and Analysis”

Jiacun Wang; Daniela Rosca; William Tepfenhart; Allen Milewski; and Michael Stoute

Proceedings: 3rd International Conference, Business Process Management 2005
September 5 – 8, 2005
Nancy, France

(The conference selected 25 full papers from 190 submissions.)

Approved for release by ECBC.

2. “Interaction Design Principles for the Bioterror Incident Management Environment”

Allen E. Milewski

Proceedings: IASTED Conference on Human-Computer Interaction
November 14 – 16, 2005
Phoenix, Arizona, USA

Approved for release by ECBC.

3. “Migrating, Tagalong Displays in the Emergency Management Context”

Allen E. Milewski; Robert M. Kelly; Jiacun Wang; and Lauren Landrigan.

Workshop on Information Visualization and Interaction Techniques for Collaboration across
Multiple Displays
ACM/Computer-Human Interaction SIG (CHI)
Montreal, CA
April 22-27, 2006

Approved for release by ECBC.

4. “Workflow Management Tool Support for Incident Command Systems”

Michael Stoute; Jiacun Wang, *IEEE Senior Member*; Daniela Rosca; William Tepfenhart;
Allen Milewski

(This was previously entitled: Incident Command System Workflow Modeling and Validation Tool Development and was submitted to ECBC for Release Approval on Oct. 3, 2005, under this name. The title was changed last minute, per Jiacun Wang.)

Proceedings: IEEE International Conference on Networking, Sensing and Control
April 23 – 25, 2006
Fort Lauderdale, Florida, USA

Approved for release by ECBC.

5. “Incident Command System Workflow Modeling and Analysis: A Case Study”

Jiacun Wang; Daniela Rosca; William Tepfenhart; and Allen Milewski

Proceedings: International Conference on Information Systems for Crisis Response and Management (ISCRAM 2006)
May 14 – 17, 2006
Newark, New Jersey

Approved for release by ECBC.

6. “Dynamic Workflow Modeling and Verification”

Jiacun Wang and Daniela Rosca

Submitted in early December, 2005, to (CAiSE’06) 18th Conference on Advanced Information System Engineering 2006
Luxembourg
June, 2006

(Committee accepted 33 papers out of 189 submissions.)

Proceedings: International Conference on Advanced Information Systems Engineering

Luxembourg
June 5 - 9, 2006

Previously released information and general knowledge.

7. “RFID – based Tag-Along Displays for Incident Command System Workflow Management”

Lauren C. Landrigan; Allen E. Milewski; Robert M. Kelly; and Jiacun Wang

Proceedings: 2006 IEEE International Conference on Systems, Man and Cybernetics
October 8 – 22, 2006
The Grand Hotel
Taipei, Taiwan

Approved for release by ECBC.

8. “EPC Workflow Model to WIFA Model Conversion”

Anni Tsai; Jiacun Wang; William Tepfenhart; and Daniela Rosca

Proceedings: 2006 IEEE International Conference on Systems, Man and Cybernetics
October 8, 2006
Taipei, Taiwan

Approved for release by ECBC.

9. “TOPOFF 3 Comments and Recommendations by Members of New Jersey Universities Consortium for Homeland Security Research”

Paul J. Lioy, Ph.D.; Fred S. Roberts, Ph.D.; Brendan McCluskey, JD, MPA; Mary Jean Lioy, MS; Audrey Cross, Ph.D., JD; Lee Clarke, Ph.D.; Lee Louise Stanton, JD; William Tepfenhart, Ph.D.; Mary Ellen Ferrara, MS.

Journal of Emergency Management
470 Boston Post Road
Weston, MA 02493

Vol. 4, No. 6
November/December 2006

10. “Incident Command Systems Resource-Constrained Workflow Modeling and Its Application to Military Command and Control Decisions”

Jiacun Wang, Anni Tsai, and Daniela Rosca

2007 Chemical Biological Information Systems (CBIS) Conference and Exhibition
Renaissance Austin Hotel
Austin, Texas
January 8 – 11, 2007

11. “Use of a Markov Chain Model for Epidemics”

William M. Tepfenhart, Karen DeMarco

2007 Chemical Biological Information Systems (CBIS) Conference and Exhibition
Renaissance Austin Hotel
Austin, Texas
January 8 – 11, 2007

12. “Innovative Emergency Response Information Technology Applications: Civilian to Military Crossover Opportunities”

Robert M. Kelly, Jr. and Allen E. Milewski

Poster Presentation

2007 Chemical Biological Information Systems (CBIS) Conference and Exhibition
Renaissance Austin Hotel
Austin, Texas
January 8 – 11, 2007

13. “Resource-constrained and Decision Support Workflow Modeling”

Bill Tepfenhart; Jiacun Wang; Daniela Rosca; and Anni Tsai

International Journal of Intelligent Control and Systems
Vol. 12, No. 1
March, 2007

Previously released information and general knowledge.

14. “Inter-organizational Workflow Modeling and Analysis of Incident Command Systems”

Daniela Rosca and Jiacun Wang

Proceedings: IEEE International Conference on Networking, Sensing and Control
London, UK

April 14 – 17, 2007

Previously released information and general knowledge.

15. “Paper or Plastic? Enhanced Paper Maps for Emergency Operations”

Lauren Landrigan; Allen E. Milewski; Robert Bekefi

Proceedings: 4th International ISCRAM Conference
Delft, the Netherlands

May 13 – 16, 2007

Approved for release by ECBC.

16. “Low Cost Tabletop Displays in an Emergency Operations Center”

Lauren C. Landrigan and Allen E. Milewski

5th IEEE International Conference on Intelligence and Security Informatics
(IEEE ISI-2007)

Rutgers University
New Brunswick, New Jersey USA

May 23 – 24, 2007

Approved for release by ECBC.

17. “Paper or Pixels? Enhanced Paper Maps for Emergency Operations.”

Lauren C. Landrigan; Allen Milewski; Robert Bekefi

IEEE International Conference on Systems, Man, and Cybernetics

Montreal, Canada

2007

18. “Resource-Constrained Workflow Modeling”

Jiacun Wang; William Tepfenhart; Daniela Rosca; and Anni Tsai

Proceedings: IEEE & IFIP International Symposium on Theoretical Aspects of Software Engineering

Shanghai, China

June 6 – 8, 2007

19. “Workflow Resource Requirement Modeling and Analysis”

Jiacun Wang; William Tepfenhart; Daniela Rosca

Proceedings: IEEE International Conference on Networking, Sensing and Control
Sanya, China

2008

20. “Dynamic Workflow Modeling and Analysis in Incident Command Systems”

Jiacun Wang; Daniela Rosca; William Tepfenhart; Allen Milewski; Michael Stoute

IEEE Transactions on Systems, Man, and Cybernetics – Part A: Systems and Humans,
Vol. 38, No. 5

September 2008.

21. “Usable Information Delivery for Emergency Decisions”

Allen Milewski; Robert Kelly

Chemical and Biological Defense Physical Science and Technology (CBD PS&T) Conference

New Orleans, Louisiana USA

November 17 – 21, 2008

Accepted for Publication.

22. “Emergency Response Workflow Resource Requirements Modeling and Analysis”

J. Wang, W. Tepfenhart, and D. Rosca

IEEE Transactions on Systems, Man and Cybernetics

J. Wang, W. Tepfenhart and D. Rosca, [Emergency Response Workflow Resource Requirements Modeling and Analysis](#), *IEEE Transactions on Systems, Man and Cybernetics, Part C*, vol. 39, no. 3, 270-283, 2009.

23. Agent Based Emergency Response Workflow Management”

William Tepfenhart, *Member, IEEE*, Jiacun Wang, *Senior Member, IEEE* and Daniela Rosca

March 1, 2009

24. “RFID-Based Innovative Emergency Response Information Technology Applications”

Robert M. Kelly, Jr.

NDIA 10th Annual Science & Engineering Technology Conference/DoD Tech Expo
Embassy Suites Convention Center
North Charleston, SC

April 21 – 23, 2009

25. “Feedback Mechanisms in Automated Emergency Management Training”

Guardascione, M. and Milewski, A.E.

Paper accepted for the 7th International Conference on Information Systems for Crisis Response and Management, Seattle, WA

May, 2010

26. “WIFAI - A Tool Suite for the Modeling and Enactment of Inter-organizational Workflows”

Michael Tarullo, Daniela Rosca, Jiacun Wang, *Senior Member, IEEE* and William Tepfenhart

27. “Real-Time Workflow Modeling and Analysis in Emergency Response”

Jiacun Wang and William Tepfenhart

Paper accepted to present at:

2010 International Conference on Software Engineering Research and Practice
(SERP '10: July 12-15, 2010, Las Vegas)

Las Vegas, Nevada

July 12 – 15, 2010, USA

Previously released information and general knowledge.

II. RESEARCH PRESENTATIONS

1. “Information Assurance and Integration – the Need to Manage Information for Prevention, Response, Recovery and Mitigation”

Dr. William Tepfenhart, Chief Technologist, CRRDS, Monmouth University

Panel Topic: Situational Security Scenario: Bio-Chemical Attack on the Water Supply

Statewide Symposium on Homeland Security
NJ Universities Consortium on Homeland Security
Water Terrorism Panel
Paul Robeson Campus Center
Rutgers
Newark, New Jersey

October 12, 2004

Previously released information and general knowledge.

2. “Technology Challenges in Developing a Rapid Response Database System”

Dr. Barbara T. Reagor and Dr. William Tepfenhart, Monmouth University; Ms. Karen DeMarco, Monmouth County Health Department; Dr. Soos, RDECOM

Topic: Emerging Technologies and Practices in Homeland Defense

AFCEA
Professional Development Seminar
Fort Monmouth
February 24, 2005

Previously released information and general knowledge.

3. “Developing Disease Surveillance Systems in New Jersey”

Dr. Barbara T. Reagor and Dr. William Tepfenhart, Monmouth University; Other Panel Members

Second Information Exchange (ITE) Conference
Mercer County College – NJ Office of Information Technology (NJ-OIT)
March 9, 2005

Previously released information and general knowledge.

4. “Database Sharing in Emergency Response”

William Tepfenhart, Ph.D., Chief Technology Officer, Center for Rapid Response Database Systems, and Associate Professor, Monmouth University Software Engineering Department

Panel: Chemical and Biological Preparedness

4th Statewide Symposium on Homeland Security
Monmouth University
West Long Branch, New Jersey

May 23, 2005

Previously released information and general knowledge.

5. “Dynamic Workflow Modeling and Verification”

Jiacun Wang

Nanjing University
Nanjing, China

June 2005

6. “Incident Command Systems and Workflow Modeling”

Jiacun Wang

Joint Seminar of IEEE North Jersey Section and New Jersey Institute of Technology

October 2005

7. “Systems Engineering at the Global Level”

William Tepfenhart, Ph.D., Director of Graduate Studies – Software Engineer and CTO for CRRDS, Monmouth University

Panel Topic: Software Systems Integration and Interoperability: Needs, Issues and Research Directions in Support of Information Sharing for Homeland Security

5th Statewide Symposium on Homeland Security
University Consortium for Homeland Security Symposium
NJ Institute of Technology
Newark, New Jersey

November 29, 2005

Previously released information and general knowledge.

8. “Decentralized Trust Management Based on the Reputation of Information Sources”

Meng Yu, Wanyu Zang

7th Statewide Symposium
NJ Universities Consortium on Homeland Security
Rutgers University
Multipurpose Room of Busch Campus Center

Symposium Theme: All Hazards Preparation

November 20, 2006

9. “Incident Command System Workflow Modeling and Analysis”

Jiacun Wang

Nanjing University of Engineering
Nanjing, China

June 2007

10. Poster Presentation – Map Table: “The Effectiveness of Low Cost Interactive Tabletop Displays in an Emergency Operations Center”

Lauren C. Landrigan, Allen Milewski, Robert Bekefi

Poster Presentation –
Meetings of TableTop “07 Conference on Interactive TableTop Interfaces
2nd IEEE TableTop Workshop
Newport, Rhode Island

October 10 – 12, 2007

11. “Low Cost Interactive Tabletop Displays for Emergency Operations Centers Utilizing Digital and Paper Maps”

Lauren Landrigan; Allen Milewski; Robert Bekefi

New Jersey Technology Council: 3rd Mid Atlantic Defense/Homeland Security Showcase
Princeton, New Jersey

June 19, 2008

12. “Emergency Response and Management”

Jiacun Wang

Guangdong Industrial University
Guangzhou, China
April 12, 2008

13. “Communicating Decisions When There is No One To Talk To”

Barbara T. Reagor; James M. Hammill

Poster Presentation

Chemical and Biological Defense Physical Science and Technology (CBD PS & T) Conference
New Orleans, Louisiana

November 17 – 21, 2008

14. Poster Presentation – “Determining Credible Sources During an Emergency Situation”

Landrigan, L.C., Milewski, A.E. and Baker, J

Paper accepted for the 7th International Conference on Information Systems for Crisis
Response and Management,
Seattle, WA

May, 2010

III. MASTERS' THESES

1. "Computational Analysis of Stochastic Epidemic Model"

By: Gaureesh Agnihotri

Master's Thesis Submitted to Dr. William M. Tepfenhart towards partial fulfillment of the requirements of the Master of Science in Software Engineering at Monmouth University, West Long Branch, NJ 07764-1898

November 21, 2005

2. "Workflow Management Tool Support for Incident Command Systems"

By: Michael Jason Stoute

A thesis presented to Monmouth University in partial fulfillment of the requirements for the degree of Master of Science in Software Engineering;
Monmouth University

December, 2005

3. "A Study of the Effectiveness of Low Cost Interactive Tabletop Displays in an Emergency Operations Environment"

By: Lauren Landrigan

Master's Thesis

December 21, 2006

4. “Modeling and Enacting Inter-Organizational Workflows”

By: Michael Tarullo

A thesis presented to Monmouth University in partial fulfillment of the requirements for the degree of Master of Science in Software Engineering.

May 2007

5. “Resource-Constrained and Decision Support Workflow Modeling and Tool Development”

By: Anni Tsai

A thesis presented to Monmouth University in partial fulfillment of the requirements for the degree of Master of Science in Software Engineering.

May 2007

6. “Single Sign-On Implementation and Interoperability Interface to Inter-Organizational Workflows”

By: Robert Monto

A thesis presented to Monmouth University in partial fulfillment of the requirements for the degree of Master of Science in Software Engineering.

May, 2008

7. “Web-based Resource-Constrained Workflow Enactment Tool Development”

By: Matthew Vidovich

A thesis presented to Monmouth University in partial fulfillment of the requirements for the degree of Master of Science in Software Engineering.

May, 2008