Call for Papers

Journal of Defense Modeling and Simulation: Applications, Methodology, Technology (JDMS)

Special Issue: Data Sciences and Predictive Analytics for Counter-Terrorism – Datasets, Models and Simulation for Suicide Bombings, IEDs and School Attacks

Introduction

While traditional defense modeling and simulation often focuses counter terrorism efforts on force protection, via jammers, and blast protection, via armor, only a limited amount of work was done to understand actual explosive devices, their signatures, and how this intelligence reflects on the device builder and his attack patterns; until now. It is now recognized that explosions such as IEDs and Suicide Bombings are the embodiment of a strategic policy of both point targeting (e.g., suicide bombers) and area denial (e.g., roadside attacks), that provide asymmetric groups with an unprecedented force multiplier, and implied legitimacy via attack video footage, at minimal capital cost. This special issue is therefore interested in novel / emerging modeling and simulation techniques, predictive analytics models and context-aware rich datasets on these violent events that address the design descriptions, development signatures and production approaches of explosions from strategic resourcing to tactical employment. Potential contributions can include but are not limited to –

- Use of Big Data approaches to understand Suicide Bombings and IEDs, their development and deployment signatures, across the different theaters of employment
- Use of modeling and simulation to improve the understanding, prediction and evaluation of target detection and recognition
- Multi-modal data fusion approaches for understanding blast signatures over the various phases of their lifecycle

- Decision support systems, from real-time to strategic forecasting, applicable to bombing attacks (e.g., explosion type, location(s), date(s))
- Red force logistical challenges for deploying IEDs and subsequent intelligence collectibles
- Counter explosions scenario evaluations and data collections
- Techniques to forecast readiness levels and associated Counter-Explosion intervention techniques
- Methods for incorporating forecasting / decision support tools into training on Counter-Explosion tactical outcomes
- Datasets for Suicide Bombings and IED attacks
- Datasets for Bombing Attacks on Schools
- Context-aware Datasets for Counter-Terrorism
- Simulation Platform for Explosions and resulting carnage and destruction
- Explosion to Human Injury Mapping Models and Predictive Simulations

Papers submitted should not be concurrently under review at another conference, journal, or similar venue.

Instructions for Manuscript Preparation

For manuscript formatting and other guidelines, please visit the Author Guidelines for JDMS.

Note: Manuscripts must not have been previously published or be submitted for publication elsewhere. Each submitted manuscript must include title, names, authors' affiliations, postal and e-mail addresses, and a list of keywords. For multiple author submission, please identify the corresponding author.

Due Dates

Submission of papers January 30, 2016

Submissions for full paper review

All manuscripts must be submitted electronically through the paper submission system to the [JDMS Manuscript Submission System](). In the title page, author(s) must specifically mark that the paper is intended for this special issue as follows: "Submission for the Special Issue of JDMS: **Data Sciences and Predictive Analytics for Counter-Terrorism**. Please follow the guidelines for submission on the Manuscript Central site.

Final paper submissions

Each final submission must be prepared based on the JDMS journal requirements (see the [Author Guidelines for JDMS]() page).

For questions contact the editor at:

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