



International

*Innovation in Knowledge Based and Intelligent
Engineering Systems*



INVITED SESSION SUMMARY

Title of Session:

Intelligent Decision Technologies for Manned and Unmanned Combat and Mission Systems

Name of Chair:

Dr. Angela Consoli, DST Group, Department of Defence

Details of Session:

Successful military campaigns are dependent on decision superiority. Achieving tactical decision superiority is not solely dependent on the humans operating the military platform, but also the decision-making techniques and technologies that are integrated within the platform's combat and mission system. The future of the battlespace is more dynamic with new and emerging advanced and unconventional threats. Current and future combat and mission systems require novel, intelligent and innovative technologies to enhance tactical decision making through automation and operator decision support systems. In particular, there is a focus on intelligent decision technologies to achieve team decision making within a group of manned, unmanned, and hybrid combat and mission systems.

The aim of this special session is to bring together researchers that are interested in improving decision-making making through automation and operator decision support systems in the tactical space. Submitted papers should focus on enhancing and supporting individual and team intelligent decision techniques and technologies for current and future manned and unmanned tactical mission and combat systems.

Topics of Interest:

Submissions on the following topics are invited.

- Tactical decision-making and aids
- Group tactical decision support systems/aids
- Team decision making techniques for homogeneous and heterogeneous tactical systems
- Optimization of decision making techniques in tactical environments
- Automated intelligent decision technologies
- Decision-making techniques and technologies for unmanned autonomous systems
- Application of intelligent agent and multi-agent systems in intelligent decision technologies
- Cognitive architectures and modelling for decision-making processes and support systems
- Human/machine decision-making
- Decision-making in self-organising systems
- Other related topics

This session aims to address topics from a practical and/or theoretical perspective.

Information for Authors:

The submitted papers should present results of the original and unpublished research. The papers will be reviewed by the International Program Committee. The best submissions will be selected for presentation and will be included in the conference proceedings.

The conference proceedings will be published by Springer as book chapters in a volume of the KES Smart Innovation Systems and Technologies series, submitted for indexing in Scopus and Thomson-Reuters Conference Proceedings Citation Index (CPCI) and the Web of Science.

Submitted papers should be prepared in Springer style and not **exceed 10 pages**. All papers must be submitted electronically via conference submission system.

Important Dates

Submission of papers: **16 January 2017**
Notification of acceptance: 13 February 2017
Camera ready papers submission: 13 March 2017

Please note: Publication files require either the word-processor (i.e. MS Word) or LaTeX file(s) together with a final PDF.

Email & Contact Details:

Dr. Angela Consoli
Defence, Science and Technology Group,
Department of Defence, Australia
angela.consoli@dsto.defence.gov.au