MESSAGE FROM THE CHAIRS

The 2007 IEEE Symposium on Computational Intelligence for Security and Defense Applications covers some of the most challenging application areas, which have great impact on our economies and even our daily lives.

Security, defense and military application are in fact receiving significant attention worldwide, both to ensure the protection and the well being of populations and to enhance the quality of the human life. It is important to detect critical situations and recognize dangerous conditions as early as possible, to effect appropriate reactions.

Adaptive and evolutionary technologies and methods are needed to ensure sufficient flexibility to achieve these goals and, in particular, to allow for adaptation to unforeseen conditions, generalization of some limited knowledge, imprecise reasoning when incomplete data are available, and global optimization to deal with changing environments.

Computational intelligence, not limited to neural networks, fuzzy systems, evolutionary computation, multi-agent technologies, swarm intelligence and machine learning, has proved to be an effective and efficient approach to tackle these problems. These methods provides a means for understanding the environment, learning desired behaviors, gaining new knowledge, operating autonomously, and evolving and adapting themselves to changing conditions and needs.

This symposium aims to establish a comprehensive specialized forum to present the most recent results in computational intelligence technologies and their applications to security, defense and military problems.

Symposium topics treat all of these aspects, from the points of view of both theory and practice. In particular, this includes: command and control of military operations, intelligence gathering and exploitation, modeling and simulation of military operations, advanced computer architectures for military operations, cyber security, computational cognitive modeling, automatic target recognition, programs for training, models for war games, situation assessment, logistics support, design of military systems/subsystems, course of action generation, mission planning and execution, resource management, route/sortie planning, mission weapon pairing and assignment, and employment of autonomous vehicles.

The framework of the Symposium Series on Computational Intelligence and the location in Hawaii, USA, will allow for creating an ideal setting not only for discussion of new developments and results in research and engineering practice, but also for meeting old friends and new colleagues from all over the world in a relaxing atmosphere. It will be up to us how to enhance this dissemination of technical and scientific knowledge and achieve a better understanding of the people's feelings and beliefs thus making the Symposium a powerful catalyst of safety, defense and military problems.

Efforts from several people were required to shape the technical program, arrange the venue, and assure accommodations. We would like to take this opportunity to thank each and all of the contributors to the Symposium organization.

We hope that all of you will acquire interesting, important, and mind-stimulating information from the papers included into the Symposium program. We hope also that you will have useful interaction and communications with colleagues at the conference, as well as enjoy your time in Honolulu and the surrounding area.

Welcome to CISDA 2007!

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