

**2023 IEEE International Conference on Systems, Man, and Cybernetics
(SMC 2023), www.ieeesmc2023.org**

1-4 October, 2023, Hyatt Regency Maui Resort and Spa, Hawaii, USA,
200 Nohea Kai Drive, Lahaina, Hawaii, USA, 96761-1985

**Special Session Call for Papers
SMC 2023 Special Session on**

Advanced System with Advanced Computational Techniques to the Real-Life Applications

(Special Session Code: 41m7c)

Special Session Organizer and Co-organizers:

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Important Dates

March 30, 2023: Deadline for submission of full papers to special sessions.

May 15, 2023: Acceptance/Rejection notification

July 1, 2023: Final camera-ready papers due in electronic form

Submission

Manuscripts for a Special Session should **NOT** be submitted in duplication to any other regular or special sessions and should be submitted to SMC 2023 main conference online submission system on SMC 2023 conference website.

All special session paper submission will be reviewed in the same way as main conference Regular Papers by a general pool of reviewers. Only papers of SMC Conference quality will be accepted for presentation. The Area Chairs and Co-Chairs of the SMC Technical Program will coordinate the review process.

Organized by

Hiroshima Section SMC Chapter

Introduction

Nowadays, systems become bigger and complex. For these systems, many computational techniques should be used. For example, it is Artificial Intelligence (AI). the most famous recent AI technique is deep learning. However, there are various techniques for AI. Also, for computational techniques, evolutionary computation can be used such as genetic algorithm (GA). To use these, systems can increase the ability for computation and then, systems can be effective. For increasing the ability for computation, meta-heuristics that we can get the near-optimal solution for any problems are used. For meta-heuristics, genetic algorithm (GA), simulated annealing (SA), tabu search (TS) and neural network (NN) are the most famous. Recently, simulating the behaviour of creatures have been studied. For example, particle swarm optimization method (PSO) and ant colony optimization method (ACO). Also, before using above method, many data should be collected. To do this, Internet of Thing (IoT) device should be used to collect data. In addition, for real-life applications, many things should be considered when constructing the system. In this session, we discuss advanced system with advanced computational techniques shown above, and discuss how to apply the system to real-world. SMC Hiroshima Chapter organizes this session. This session is organized by Hiroshima Section SMC Chapter.

Indicative Topics/Areas

- *System Modeling and Control
- *Manufacturing Automation and Systems
- *Smart Buildings
- *Smart Cities and Infrastructures
- *Advanced System
- *Artificial Intelligence
- *Computational Intelligence
- *Real-life applications
- *Internet of Things
- *Data