

Engineering of Autonomic and Autonomous Systems (EASe) Mini-Workshop



Information

Date: July 27th, 2021

Time: 10:00 AM - 12:00 PM PDT

Location: Zoom Room 3

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Overview

EASe meeting is dedicated to formulating and advancing methods, techniques and tools for the engineering of autonomic (self-managing) and autonomous (self-directing) systems. This would be the 13th EASe meeting. EASe/AA-SES has run at SMC-IT five times since 2006 including the previous edition in 2019.

The meeting is devoted to the analysis, design, development, deployment, and evolution of autonomic/self-managing and autonomous systems for computer-based systems. Such computer-based systems – also called cyber-physical systems – are characterized by functional as well as dependability requirements that mandate the tight integration of information processing and physical processes.

Therefore, EASe aims to integrate several disciplines, including software engineering, systems engineering, control theory and so forth, into a complete systems self-managing engineering approach. EASe will address many facets that include system modeling; requirements engineering; simulation, verification and validation; architectures, software and hardware platforms, and infra structures; dependability, safety, and security; human computer interfacing; large-scale systems and system integration; engineering processes; evolution all for Autonomic/Self-Managing and Autonomous Systems.

The meeting provides a bridge between industry and academia, blending academic research and industrial developments. Reports of practical solutions, trends and new system characteristics for EASe, taking an integrated systems approach, may include self-managing application in Aeronautics and Space domain

Agenda

Time	Topic	Presenter
10:00 AM	20 Years of Autonomic Computing and Contribution to and from NASA	Roy Sterritt, Ulster University
11:00 AM	A Framework for Runtime Safety Assessment of Autonomous Cyber-Physical Systems	Shreyas Ramakrishna, Charles Hartsell, Nagabhushan Mahadevan, Gabor Karsai and Abhishek Dubey, Vanderbilt

Time	Topic	Presenter
11:20 AM	A Decentralised Approach to Autonomic Self-Adaptation in a Robot Swarm	Liam McGuigan, Roy Sterritt, George Wilkie, Ulster University
11:40AM	Cubesat Autonomicity: A Paradigm Shift in Cubesat Autonomy	Clement Gama, Roy Sterritt, George Wilkie, Glenn Hawe

Organizer:

Dr. Roy Sterritt, Ulster University, Faculty of Computing, Engineering and the Built Environment, School of Computing

Prof. Mike Hinchey, Lero-The Irish Software Research Centre at the University of Limerick

Updated on 07/27/2021