

3rd International Conference on Advanced Systems and Emergent Technologies (IC_ASET'2019)



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SPECIAL SESSION on Advanced Control for Mechatronic Systems

Mechatronics are highly multidisciplinary which demands an effective integration of mechanical, electrical, control, and information disciplines. Mechatronics, such as aircraft, robot manipulators, mobile robots, biped robots, exoskeletons, electronic vehicles, unmanned aerial vehicles and underwater autonomous vehicles, has played a very important role in modern industry-related applications. To accomplish desired tasks, there is challenge for the design of advanced control methods for mechatronic systems and with enhanced performance. However, due to the effects of perturbations, uncertainties, component failures, or sensor faults, conventional control methods may lead to an unsatisfactory performance. In addition, in some physical systems, the entire state is impossible to measure, and some form of estimation is necessary. Faced with these problems, advanced control approaches have received major attention both in engineering application and academic research domains.

The main objective of this Special Session is to create a platform for scientists to present their latest theoretical and technological advancements in the field of advanced control for mechatronic systems.

Keywords:

Mechatronic systems; Biped robots; Exoskeletons; Constrained robotic systems; Advanced control; Estimation; Identification; Robustness analysis; Fault detection and isolation; Fault-tolerant control; ...

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