Fault-Tolerant Control for Unmanned Aerial Vehicles (UAVs)

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Unmanned aerial vehicles (UAVs) have demonstrated their ability in various indoor/outdoor applications such as package delivery, construction monitoring, firefighting, search and rescue, etc. They are also essential in achieving Urban Air Mobility (UAM). Faults, including actuator and sensor faults, can happen during air operations, inducing loss of control in flight. Improving the resilience of UAVs under fault cases and especially during high-speed flight conditions is a central concern for future applications. Fault-tolerant control, which is capable of automatically tolerating faults while maintaining stability and desirable performance, has great potential to tackle in-flight UAV faults.

The aim of this Special Issue is to collect research progress on UAV fault-tolerant control algorithm design, implementation, and validation. Papers are welcome on topics that are related, but not limited, to:

- Unmanned aerial vehicle
- Fault-tolerant control
- Flight control system
- Fault detection and isolation
- Urban air mobility
- Actuator and sensor faults

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