

CALL FOR PAPERS

Recent technological advances have opened the doors to new satellite applications and services. In particular, innovative manufacturing processes and the miniaturization of electronic components have paved the way to a new class of small satellites—termed *smallsats*—whose use has growing exponentially over the last few years. The term *smallsat* was initially used for mini- and microsatellites with a mass lower than 500 kg. However, today the term often refers to even smaller satellites, namely, nanosatellites (1 – 10 kg), picosatellites (<1 kg), and even femtosatellites (10 – 100 g).

The growing trend for *smallsats* is confirmed by global experts in satellite market consulting and analysis. Euroconsult reports that a total of 551 small satellites have been launched over the past 5 years, and 1380 are expected to launch up to 2020. This new class of *smallsats* can contribute significantly to the evolution of the services, allowing the realization of meshed heterogeneous architectures that can afford remarkable systems and networks performance. The implementation of classic wireless or satellite communication systems does not appear necessary in order to enable future services such as the global tracking, monitoring, and maintaining of some specific assets or contexts. Indeed, the uprising Machine-to-Machine (M2M) and Internet of Things paradigms seem to be more appropriate in such scenarios where global packet connectivity must be afforded in order to permit the exchange of information between the network and the ultimate users, but the requirements in terms of data-rate and latency are not stringent.

This special issue aims to provide the reader with a clear picture of the state-of-the-art in this fast-evolving field, as well as novel solutions and technologies that take advantage of the broad opportunities offered by the use of small satellites. We thus encourage the submission of original research, as well as review articles, from across this rapidly developing field of study.

Potential topics include but are not limited to the following:

- ▶ Smallsat and intersatellite communications
- ▶ Communication and network protocols for *smallsats*
- ▶ Ground station networks to support *smallsats*
- ▶ The adoption of IoT/M2M paradigms in *smallsat* communications
- ▶ *Smallsats* as a part of the communication ecosystem
- ▶ *Smallsats* for Earth and atmospheric observation
- ▶ New architectures for *smallsat* constellations
- ▶ Advances in *smallsat* platforms
- ▶ *Smallsat* payloads and ‘cubesats’
- ▶ Miniaturized *smallsat* subsystems for telemetry, telecommand, attitude and determination control, electric power systems, onboard data handling, and so on
- ▶ *Smallsat* applications and services (institutional and commercial)

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/wcmc/ssat/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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