Special issue on Space Situational Awareness from the 1st International Academy of Astronautics Conference on Space Situational Awareness or ICSSA 2017

The foremost purpose of Space Situational Awareness (SSA) is to provide decision-making processes with a quantifiable and timely body of evidence (predictive/imminent/forensic) of behavior(s) attributable to specific space domain threats and hazards. The special issue covers broad-ranging technical and policy related aspects associated with the topic of SSA. Over the past two decades, SSA has evolved into a high-impact, multidisciplinary field of research. The magnitude and complexity of its constituent lines of inquiry are growing at rapid pace, driven by the increasing number of objects of interest, including resident space objects: RSOs (a collective term for active spacecraft and space debris) as well as near Earth objects: NEOs (comets and asteroids in Earth’s vicinity). Combining its various notions, SSA today spans research in areas of RSO/NEO sensing, identification, forecasting, tracking, association, risk assessment, resource allocation, spacecraft control, information & communication, proximity operations, debris removal, space weather, drag-controlled re-entry, alternative (non-propulsive) deorbiting technologies, and a host of other related topics. Continued sustainable access and utilization of space relies on the awareness of its environment, both from the perspective of human operators on the ground and autonomous spacecraft during flight. Moreover, as the nature and number of participants utilizing the space environment grows, there is critical need for steadfast governance driven by a coherent space policy.
Supplementary data:
http://reg.conferences.dce.ufl.edu/docs/ICSSA/ICSSA2017Stats.pdf