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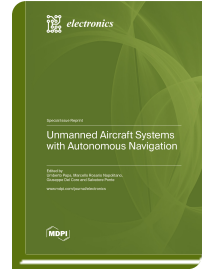
Unmanned Aircraft Systems with Autonomous Navigation

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This reprint sought high-quality contributions that highlight novel research results and emerging applications, addressing recent breakthroughs in UAS autonomous navigation and related fields, such as flight mechanics and control, structural design, sensor design, etc.

The topics of interest included the following: two-dimensional and three-dimensional mapping, target detection, and obstacle avoidance; the active perception of targets in cluttered environments (foliage, forests, etc.); vision-based and optical flow techniques; sensors and sensor fusion techniques; design models for guidance and controlled flight; state estimation, data analysis and filtering techniques (KF, EKF, particle filtering, fuzzy logic, etc.); path planning and path management; optimal control and strategies (neural networks, fuzzy logic, reinforcement learning, evolutionary and genetic algorithms, AI, etc.); navigation in GPS-denied environments; autoland and safe landing area definition (SLAD); environmental effects on UAVs (wind, etc.); autonomous UAV or MAV swarms, and distributed architectures; BVLOS autonomous navigation.



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