Prospect and Recent Research & Development for Civil Use Autonomous Unmanned Aircraft as UAV and MAV

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キーワード: UAV, MAV, Autonomy, Civil Use, Flight Control, Aircraft, Robot, Research Trend

抄録

This paper describes the present state of research and development for civil use autonomous unmanned aircraft. In particular, the history of civil use UAVs, the research and development in the world and in Japan, and the subjects and prospects for control and operation systems of civil use autonomous UAVs are described.
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Unmanned Aerial Vehicles (UAVs), or drones, are aircraft that can be controlled remotely by a pilot, or by preprogrammed plans or automation systems that enable them to fly autonomously. A large number of industries and organizations are adopting this technology, including military, government, commercial, and recreational users. As such, the decisions derived from discussing the pros and cons of drones and UAVs is poised to carry a substantial impact on the private and public sector.

Pros of Drones. Since unmanned aerial vehicles use GPS (the Global Positioning System), they can be programmed and maneuvered accurately to precise locations. This is especially helpful in a variety of situations. The perspectives for the use of unmanned aerial vehicles (UAVs) are addressed, programs due to the formation and problems preventing the use of UAVs are listed, and ways of increasing competitiveness are taken into account. This article provides an overview of research involving the advancement of UAV technology for the management of UAV production. Technologies, structures, and procedures are researched and studied. Specifically, the history of UAVs for civil use, research and development in the world, and the topics and prospects for the control and operation of autonomous UAVs for civil use are defined. The perspectives for the use of unmanned aerial vehicles (UAVs) are addressed, programs due to the formation and problems preventing the use. View Unmanned Vehicles Research Papers on Academia.edu for free. While recent developments in the information technology have amplified the use of UAVs on construction job sites, use of UGVs and ground robots is still uncommon in construction. Historically UGVs were the main type of UVs that developed to take over dangerous or highly repetitive tasks in various industries. Unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs) has recently attracted a lot of attention in the research field with its diverse functionality. UAV and UGV can enhance efficiency in search and rescue (SAR) missions by more...