

# Software-Defined Architecture for Flying Ubiquitous Sensor Networking

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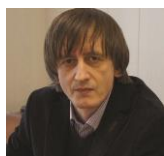
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**Abstract**— The paper describes a flying ubiquitous sensor network (FUSN) and the method of interaction UAV network (flying segment) and the terrestrial segment. It is shown that the main problem of the interaction is a significant difference between the motion characteristics of the objects of terrestrial and flying segments of FUSN. It is caused by the fact that the sensor node can be in communications range of the UAV flying segment for a limited time. It is proposed to use the additional nodes that perform the routing control function (role SDN controllers). When placing the nodes on UAVs, there are the additional options of the network structure and condition monitoring of communication channels, the localization of its components, assessing the characteristics of movement, getting forecasts of network structure changes. Organizations of flying ubiquitous sensor network, which is based on SDN architecture, improves its resistance to changes in the structure, reduces the amount of routing traffic due to its location within the same management cluster.

**Keywords**— FUSN, SDN, WSN, UAV



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