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author={X. Ji and X. Xiang and T. Hu},   
booktitle={2017 6th Data Driven Control and Learning Systems (DDCLS)},   
title={Data-driven augmented reality display and operations for UAV ground stations},   
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abstract={The commonly used 2D Display is limited in aiding operators to control unmanned aerial vehicles (UAVs) within complex environments, due to its weak immersion. This paper proposes a data-driven 3D augmented reality approach. Pre-known data and experience can be integrated into to constructing a 3D virtual scenario. Furthermore, the on-board sensor data is continuously updated to this scenario during the task process. Under such circumstance, the static scenario and dynamic data are fused together by using the UAV's position and orientation. Task-associated information, e.g. route points and flying status, is simultaneously imported into the scenario to augment the virtual reality and to support the operator as well. Eventually, the AR ground station prototype is designed and implemented. Experimental results of quad rotors demonstrate that the developed system is feasible and effective to strengthen immersion with the virtual reality glasses.},   
keywords={Augmented reality;Cameras;Real-time systems;Unmanned aerial vehicles;Virtual environments;Augmented reality (AR);Data-driven;Ground station;Unmanned aerial vehicle (UAV)},   
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**Bibliography**

The current paper proposes a data-driven 3D augmented reality approach, which benefits over the 2D display concerns due to weak immersion concept, to aid operators to control unmanned aerial vehicles in complex environments. Pre-known data and experience can be integrated in to constructing a 3D virtual scenario. In addition to that, the on-board sensor data is continuously updated to this scenario during the task process.

In these scenarios, the static and dynamic data are fused together by utilizing UAV’s position and orientation. From my analysis of the article, there are effective results of quad rotors demonstrating the developed system which is feasible and strengthened immersion with the virtual reality glasses.

**References:**

* To Add
* <http://ieeexplore.ieee.org.umasslowell.idm.oclc.org/document/8068132/>
* UML Library
* <http://ieeexplore.ieee.org.umasslowell.idm.oclc.org/document/1000039/>
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"This is entirely my own work, except as disclosed in the documentation. I gave help to the following persons:   
None  
Signed Kiran C Shettar"