



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2013_BJAST_6728
Title of the Manuscript:	Expanding Small UAV Capabilities with ANN :A Case Study for Urban Areas Observation
Type of the Article	Research Paper

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<u>Compulsory</u> REVISION comments	The state of the art must be extended There are many publications related to the use of UAV for environmental monitoring and power lines inspection. A comprehensive survey on robots for environmental monitoring, including ground, sea and aerial robots, can be found at doi: 10.1109/MRA.2011.2181683 and in general in the March 2012 issue of IEEE Robotics & Automation Magazine. There are references about the use of UAV for inspection of power lines for more than 10 years (i.e.: http://dx.doi.org/10.1117/12.417291). Similar existing systems must be examined and establish the novelty or the advantages provided by the work reported. It lacks an analysis of the capabilities of these systems and an explanation about what specific aspects are addressed in this paper, highlighting those that are novel Concerning to the use of ANN, in the introduction are not reviewed other potential jobs using the Kohonen SOM to identify singularities in images. Again similar jobs must be examined and discussed.	OK, we expanded a little with two more references about UAV in urban areas.
<u>Minor</u> REVISION comments	The following aspects should be clarified for a best understanding of the work presented:	Ok, we explained in the text:



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	1. - The system works with still image (photography), or video images? (this aspect is not stated on the paper). 2.-The images are processed on-line in their UAV or are processed on ground? In the second case, they are sent to ground or saved in the UAV and discharged once it returns to home? 3.- Do the images need georeference? In that case, is it necessary to keep accurately position and attitude together with the saved image? How is this precision achieved? If it is not necessary to keep the position-attitude information, how it is possible to locate the actual field image? 4.- The images taken with RC helicopters are subjected to a high degree of vibration. It is vibration avoided or the images are processed to reduce the vibration effects?	We use photography The images were processed in the ground station The images had georeference, the system puts this information, the precision is few meters. We used electric helicopter because they have a little vibration and we use a gimbal with dampers.
<u>Optional/General</u> comments	-- The use of drones over civil aerial space is a controversial issue in some societies, because it may interfere with the privacy of people. However, the height at which these images are taken prevent the identification of individuals who may appear in images. Some countries, such as UK, have legislation concerning to the use of UAVs in civil space. This research should be done respecting this legislation	Ok, because this problem we are using in line inspections that they are private places Now we do not have any legislation for UAVs, because this every time that use the system we need to notify the aeronautics.