Revolutionize Projection Mapping Using Drones

*Projection Mapping* is a common technique to augment the appearance of physical objects using digital illumination, or *projectors*. This technique is used in demos, shows, teleconferencing, and others. One of the technique’s biggest drawbacks is the setup – the hardware must be carefully calibrated to itself and its surrounding. We propose to **mount the setup onto a drone**, enabling a mobile setup, with complete projection flexibility due to the drone’s maneuverability. In collaboration with the school of Computer Science.

**Goals:**

The project will include the following steps:

- Identifying a specific object ([https://www.uco.es/investiga/grupos/ava/node/26](https://www.uco.es/investiga/grupos/ava/node/26)), positioning the drone accordingly, and augmenting its appearance ([https://web.media.mit.edu/~raskar/Shaderlamps/](https://web.media.mit.edu/~raskar/Shaderlamps/)).

**Requirements:**

Serious, ambitious and diligent student with high grades.

**Skills (advantage if already known; otherwise will be acquired):**

- C++, C, Python, Linux
- Computer Vision

**Contact:**

Mr. Yoni Mandel – yehon2@mail.tau.ac.il