**BATTLEFLY**

**ABSTRACT**

The concept of “BATTLEFLY” an unmanned air vehicle has being optimized under the theme of Mobility of UGV over air. The idea has being conceptualized on the basis of UAV robotic system where the robot is going deal with the critical situation and intended to go such places that cannot be safely reached by soldiers or other type of gadgets. So the device has being optimized by gathering of intelligence through the surreptitious use of cameras, microphones, or other types of sensors. It also has some special features like attacking mode and charging facility via solar charger/magnetizing field. The device not only surveillances the enemy but also used as a swarm weapons against the enemy forces.

The device has being conceptualized in two parts i.e. the one will have the attacking mode and spying facility and other will be the parent device of the first one which will provide the source energy and be a powerful backup for the first device. The design, shape and size will be optimized in such a way that it looks like a small micro-organism like a dragonfly or a butterfly which could not easily manipulate a human eye. The device is idealized in such a way that it could satisfies all kind of features a UAV device requires. The device will be totally separable with each other.Overall the device can be perfectly used for military purpose without harming unintentionally.

The device has one microcontroller through which we are going to control all our features, highly bandwidth antennas , good camera and the body is surmounted with very light and highly effective elements. Also we have used actuators which generate the sufficient frequency which allow device to fly and move here and there. Simple attacking mode being used as well as sensors are used which will sense temperature, gravity, direction and many more and the last but not the least the energy source used is rechargeable and if possible we are trying to made it auto rechargeable. Finally the device has being made by studying and visualizing many references. So it is almost possible to make it realistic and very effective.