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## (54) Title of the invention: ICS- AERIAL VEHICLE: INTELLIGENT AERIAL VEHICLE USING CAMERA, WIRELESS COMMUNICATION MODULE PATROLS ABOVE SWIMMERS SYSTEM.

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## (57) Abstract:

Our Invention ICS- Aerial Vehicle • is a drone equipped with a camera, a wireless communication module controlled an acoustic sensor, a GPS receiver, software and collapsible floatation device patrols above swimmers. The ICS- Aerial Vehicle is also the camera and acoustic sensor capture the video and audio of the swimmers and the information is either streamed to a command center or processed by the onboard software. The ICS- Aerial Vehicle is also with audio and video analysis capabilities, software is used to detect a swimmer in distress (SID) and Alternatively the information is streamed to lifeguard or volunteers all over the world to spot SID. The ICS- Aerial Vehicle is also detection method is to let swimmer wear a wearable emergency notification device, which sends wireless signals comprising GPS location data and a SID presses a button to indicate rescue request and the drones fly over by GPS signal guidance. The ICS- Aerial Vehicle is also the solar power is used as the optional power source of the drones, which would allow them to sustain operation for a prolonged period of time and once a SID is identified, the drone or drones fly over the SID and drops the collapsible floatation device.

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