UNIVERSITY OF SOUTH FLORIDA

Defense of a Master's Thesis

Drone Movement Control using Gesture Recognition from Wearable Device

by

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For the MSCS degree in Computer Science & Engineering

Gesture Recognition is a new and upcoming trend that is being widely used in wearable devices and mobile handheld devices. The sensors like Accelerometer, Gyroscope, Heart rate monitor, Barometer and Ambient Light are mostly being included within the device to detect the static or continuous motion, rotational velocity, heartbeat rate of the user, pressure and light conditions for the device respectively. Implementing algorithms to capture the readings of these sensors and implementing them in a necessary way allows a user to use the wearable devices for a wide variety of applications. One such application is controlling drone that takes user input to determine their motion. A Drone can accept signals from a combination of computer and a radio dongle and would fly according to the accepted commands. The wearable device can detect the motion of the wearer's hand when moved left, right, up, down etc. using the gyroscope sensor. This information can be used to process and send the signals to the drone to enable wireless and gesture-based movement control.

Friday, Oct 12, 2018
10:00 AM
ENB 337
THE PUBLIC IS INVITED

Examining Committee
Dr. Sriram Chellappan, Ph.D., Major Professor
Dr. Tansel Yucelen, Ph.D.
Dr. Mehran Mozaffari Kermani, Ph.D.

Robert Bishop, Ph.D.
Dean, College of Engineering

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