Introduction

Hello. My name is Alan Hawse. I am Senior Vice President of Technical Staff for Solutions and Software at Cypress Semiconductor. Welcome to Cypress Academy. This is the first video of a series of 40 or so that will provide you short, fundamental lessons in programming WICED WiFi. You might ask: What is WICED WiFI? Well, WICED stands for Wireless Internet Connectivity for Embedded Devices…. But what is it? Simple it is the best IoT embedded WiFi on the face of the planet bar none. Cypress stands for helping you solve your problems. But I think the best way to solve WiFi problems is not create them in the first place as they are so so hard to debug. When your life is too short for flaky Wifi you need WICED.

It has been about one year since Cypress acquired the Broadcomm IoT division. This last year has been one of the best technical years of my life as I have gotten to learn how to use the WICED WiFi and Bluetooth chips. They are truly remarkable as you will see in this series of videos. All of this learning has been codified into my textbook which I call “Cypress Academy: WICED WiFi 101”. For those of you who didn’t go to school in the US, the introduction class in universities is often called “101” and is all about providing you the fundamental skills required to move to more advanced classes.

That is exactly what this class is all about. Teaching you all the fundamental skills required to be successful with WICED WiFi. You can get a copy of this book, and all of software required for the class at our website. Moreover, you can post and discuss your questions and problems in our developers community. Or if you have something else or just want to chat, please feel free to email me at [alan\_hawse@cypress.com](mailto:alan_hawse@cypress.com) or tweet me @askiotexpert

This class is about the Internet of Things … IoT. If you follow all of the videos you will have the skills to build an IoT device, from reading and writing the GPIOs, to using the I2C, making threads, semaphore and mutexes in the RTOS, Using the library, Attaching to the WiFI network, reading and writing the DCT, making tcp/ip servers and clients, and finally using MQTT to attach to Amazon.com

But…. one step at a time.

For this class I will build all the projects on this devkit…. Called the CY943907AEVAL1… this board has a wifi radio module with the 43907, a 200mhz Cortex R4 + and the worlds finest 802.11n radio. The board also has

* a programmer/debugger and a serial bridge
* An Ethernet Phy
* An sd card expansion slot
* arduino compatible expansion headers.

For some of the exercises in this class I will also use the PSoC4 Analog Front End shield which has a PSoC4 Analog coprocessor running as an I2C slave for the WICED board. But…more on that later.

The class has 7 chapters which I will turn into the 40ish videos

1. A survey of the WICED WiFi Ecosystem
2. Using the MCU peripherals (GPIOs, I2C, PWM etc.)
3. Using the WICED RTOS
4. The WICED Library
5. Connection to WiFi
6. TCP/IP Socket based communication
7. Using MQTT and the Amazon.com Cloud.

In the next lesson, I will show you WICED Studio our Eclipsed based IDE which is your platform for develop IoT products.

You can post your comments and question in our Wifi developer community or as always you are welcome to email me at alan\_hawse@cypress.com or tweet me at @askioexpert with your comments, suggestions, criticisms and questions.