8th ANNUAL TechCon 2022
WCF Country
West Central Florida Section

ARRL West Central Florida Section Technical Conference

**SATURDAY FEBRUARY 26, 2022
LIST OF PRESENTATIONS**
Revision 1.0 - 2/22/20

INTRODUCTION TO ANTENNA MODELING - DAVE BIRNBAUM K2LYV - ARRL TECHNICAL SPECIALIST.

There are several programs that allow any amateur with a computer to model the performance of an antenna or antenna design. For example, recently W7EL has announced that his program, EZNEC Pro, formerly sold, will now be free to use. There are other programs available as well. In this talk I will demonstrate how to describe an antenna to the program and show the kind of results that one can obtain. While antenna modeling follows the rule of simulations: "All simulations are wrong but some are less wrong than others," I will also cover some of the limitations as well.

INTRODUCTION TO FT8 - GARY BISHOP K4GHB.

In addition to being a popular mode of digital communications FT-8 can be used to understand the performance of radio station design. This presentation will cover the basics of FT-8, operating tips and how to use FT-8 to analyze propagation for all HF modes.

INTRODUCTION TO FIBER OPTICS - GARY BISHOP K4GHB.

Over the past 40 years fiber optic technology has revolutionized international communications systems. This presentation will cover the operational principles, designs, manufacturing methods and restoration of fiber optic cables.

BASIC PROGRAMMING AND WINDOWS 10 IN PERFECT HARMONY - MIKE HEMBREY KV0OOM - ARRL TECHNICAL SPECIALIST:

The old programs written in various dialects of BASIC have been rendered useless by modern technology, specifically Windows 10. There are a lot of BASIC programs created from complex math that are useful even today. This PowerPoint presentation will show a way to convert those old programs into applications that will run in Windows 10, including sending the results to your Windows printer.

PEBBLES AND BLOCKY - PICAXE PROGRAMMING MADE EASIER - MIKE HEMBREY KV0OOM - ARRL TECHNICAL SPECIALIST.

PICAXE devices are Microchip PIC devices with pre-programmed firmware that enables bootloading of code directly from a PC, simplifying hobbyist embedded development (not unlike the Arduino and Parallax BASIC Stamp systems). PICAXE devices have been produced by Revolution Education (Rev-Ed) since 1999. To enable non-programmers to develop projects with the Picaxe, Rev-Ed has adapted the Google product Blockly to the Picaxe. They then created Pebbles for the Picaxe, which is a graphical tool to allow developing using solderless breadboards virtually. This means you can develop Picaxe projects using nothing more than software. Of course, for a real project, you will eventually have to use real parts. In this presentation, we will develop the hardware with Pebbles and program it with Blockly. Knowing how to program in BASIC is not a requirement.

INTRODUCTION TO NXDN - PAUL TOTH NB9X

This presentation will focus on the basics of NXDN, how it differes from other digital voice modes and will conclude with a demonstration of NXDN.

BEYOND THE BASICS - PAUL TOTH NB9X.

This presentation will pickup where the "Introduction to NXDN" presentation left off and will focus on NXDN advanced features, radio programming, NXDN as a textual data transport and its application in emergency communication.

MAKING PRINTED CIRCUIT BOARDS THE EASIER WAY - GORDON GIBBY KX4Z - ARRL ASSISTANT DIRECTOR

Making incredibly cheap printed circuit boards in China and having them back in six days.   A live demonstration of how to use free version of diptrace to create printed circuit boards for your group's project, and having them fabricated in China.

INTRODUCTION TO INTERNET OF THINGS JON PELLANT W1JP - ARRL TECHNICAL SPECIALIST.

This presentation explains what is the "Internet of Things" (IoT) and the basics behind the concept of IoT.

ADVANCED TOPICS OF THE INTERNET OF THINGS - JON PELLANT W1JP - ARRL TECHNICAL SPECIALIST.

This will follow on from the "Introduction to Internet of Things" presentation and get into some of the tools and techniques on how to get started using IoT in your own projects