Karen Shay West
9 Shannon Marie Way, North Easton, MA 02356

508-844-9776 http://www.linkedin.com/in/karenshaywest KarenWest15@gmail.com

SUMMARY OF RECENT ONLINE TECHNICAL TUTORIAL TYPE WORKSHOPS on Agilent/Keysight Technologies and Tektronix's equipment and the Basics of Radio Frequencies – see my Linked In Project Section for details and github links to files:

- **Back to Basics Radio Frequencies (RF) One Day Seminar**
- **Description:** Today's engineers working in communications, consumer electronics and aerospace-defense are faced with increasingly complex design and measurement challenges and rapidly changing technology. A strong foundation in basic measurement and simulation techniques is essential for success. This seminar will improve your understanding of basic RF measurement, design and simulation techniques.
- Network Analysis
- Modular PXI and AXIe Instruments
- Signal Generation and Analysis
- Fundamentals of RF Simulation
- Introduction to RF Simulation
- Impedance Matching
- RF System Block Diagram Analysis
- Filter Design
- Electromagnetic Simulation Introduction
- Function Generators
- Oscilloscopes (time domain measurement and analysis of signals)
- Power Analyzers
- BenchVue Software.
- **Description:** Solve your most pressing test challenges. Spend time with Agilent engineers and get your hands on the latest test instruments at this year's complimentary A+ Seminar Series. It's a full day of hands-on labs, best practices and skills development designed to help you solve current and emerging test challenges.
- **Lab 1: Function generators:** Accurate, flexible waveform generation
- **Lab 2: Power:** Test modern DUTs faster and better
- **Lab 3: Scopes:**
- **Demonstration of: BenchVue software**
- **Modern Spectral Analysis:**
  - **Spectrum Analysis Techniques**
  - **Architectural Differences**
  - **Performance Comparisons**
  - **Spectrum Analyzer: for frequency domain measurements of signals, as compared to the time domain measurements done with oscilloscopes**
    - measures the magnitude of an input verses the frequency within the full frequency range of the instrument. The primary use is to display and measure the amplitude and frequency of known and unknown microwave signals.
  - **Vector Signal Analyzer:**

        - measures the magnitude and phase of an input signal at a single frequency in the IF (infrared) bandwidth of the instrument. The primary use is to make in-channel measurements, such as error-vector-magnitude, code domain power, spectral flatness, on known signals.
    - **Signal Analyzer:**
        - A signal analyzer provides the functions of the spectrum analyzer with the vector signal analyzer.
    - **Types of Measurement Available:**
        - Spectrum monitoring
        - Spurious emissions
        - Scalar Network Analysis
        - Noise Figure and Phase Noise
        - Harmonic and Intermodulation distortion
        - Analog, Digital, Burst, and Pulsed RF Modulation
        - Wide Vector Bandwidth Analysis
        - Electromagnetic Interference
    - **Spectrum Analyzer Measurement Range:** -172 dBm to +20 dBm
    - **Spectrum Analyzer Frequency Range:** 3 Hz >> 325 GHz
    - **Signal Analyzers:**
        - Swept Tuned
        - Fast FFT
        - Vector Signal Analysis (VSA)
        - Real time spectrum analysis
    - **Modular Vector Signal Analysis:**
        - Stepped FFTs
        - Vector Signal Analysis
    - **Vector Network Analyzers:**
        - Stepped FFTs
        - Vector Signal Analysis
    - **Oscilloscopes:**
        - FFTs
        - Vector Signal Analysis
    - **Handhelds:**
        - Stepped FFTs (Field Fox)
        - Swept Tuned (HSA)