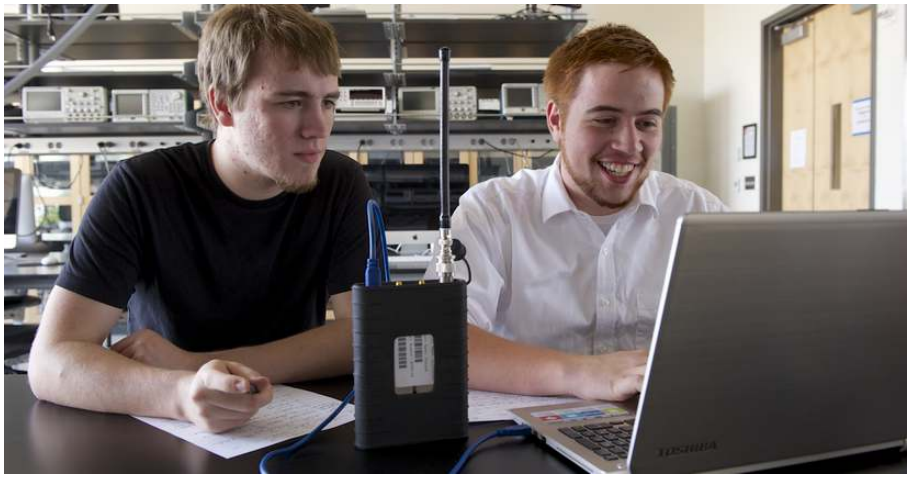
Improve Your Wireless and RF Classes with Live Signals

RSA306 Real-Time Spectrum Analyzer and SignalVu-PC

Give your students theory AND hands-on experience with live signals.



Today's graduating electrical engineers need marketable skills which are typically not developed in undergraduate curricula. More and more educators see the value of utilizing more hands-on activities to improve a student's understanding of communication concepts with live signals.

The RSA306 Real-Time Spectrum Analyzer and SignalVu-PC provides an affordable alternative to provide your students with theory and experience with live signals.

*1 PC System Performance Required: Windows 7/8/8.1, USB 3.0, Intel Core i7. SignalVu-PC Essentials is free for students to download to personal PC.

Challenges with Current RF Classes:

- Theoretical and mathematically focused:
  - Deriving formulas
  - Building simple simulations
  - Designing basic analog transmitters
  - Testing by listening
- Limited hands-on activity with live signals.
- Lack of affordable, relevant tools

With the Compact RSA306 Spectrum Analyzer and SignalVu-PC*1	
Instructors can:	**Students can:**
Demonstrate how to acquire, capture, and save live signals with the RSA306 during class.	Get hands-on experience combing theory and practical experience with live signals.
Use the saved signals for lab/homework exercises and simply email to students for homework.	Use personal PC for lab/ homework analysis using saved signals from class.

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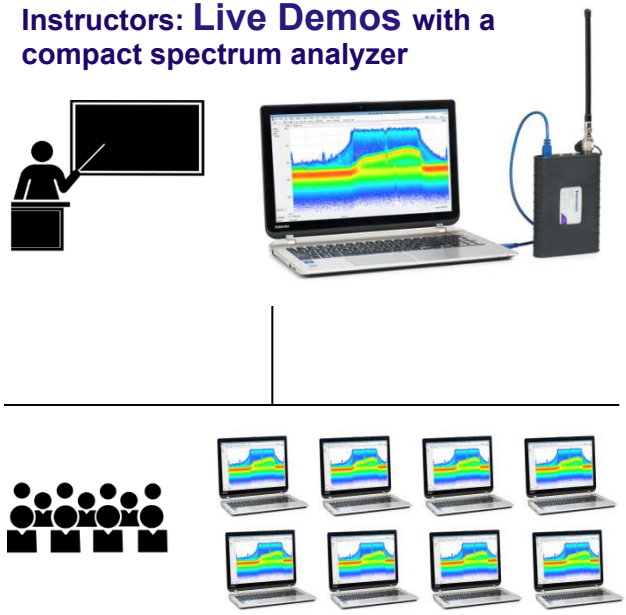
Demonstrate and Provide Hands-on Experience with LIVE Signals	
Basic RF Concepts	▪ Demonstrate signal behavior with correlated analysis of signals in several domains. ▪ Hands-on experience for students with spectrum analyzer architecture: - Demonstrating difference from a receiver, spectrum analyzer option (frequency, span, and amplitude). - Multi-domain correlated analysis of a PLL settling time: ○ Spectrum with Spectrogram Trace, Spectrogram, Frequency vs. Time, Time Overview
Vector Signal Analysis	▪ Teach multiple modulation concepts” - FSK to QPSK to WLAN/OFDM analysis.
Commercial Wireless	▪ Students practice basic IEEE 802.11 WLAN transmitter conformance measurements like: - EVM, SEM, Channel Power
EMI and FCC Compliance and Diagnostics	▪ Using live signals, explain and show the differences between Compliance, Pre-compliance, and Diagnostics and how to mitigate project delays. ▪ Demonstrate EMI and FCC Diagnostics with the RSA306 and SignalVu-PC with the +Peak CISPR filter.

Instructors: Live Demos with a compact spectrum analyzer



Students: Offline Analysis with free vector signal analysis software

Professors can send a link to a file recorded during class for post-analysis homework

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