Proposal for Short course
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Testing Wireless Devices in Reverberation Chamber

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Abstract: The reverberation chamber has for decades found application in the EMC area, but it can with great advantage also be used for antenna measurements since it emulates effectively a multi-path propagation environment with Rayleigh fading. The course will give the basic theory of reverberation chambers, and show how the chamber can used to measure radiation efficiency, free space radiation impedance, and diversity gain of antennas; total radiated power and receiver sensitivity (TIS) of mobile phones and other wireless or mobile terminals (GSM, CDMA, DECT, Bluetooth, UMTS); and channel capacity of MIMO antenna systems. The measurements can fast and easily be performed for different talk positions relative to a head phantom or other environments. Experience has shown that measurements in reverberation chambers can be done much faster than in anechoic chambers, and often with better accuracy.