

ABGs of the IEEE 802.11 Wireless LAN Standard

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Tutorial Outline

It is clear that wireless LANs have become the new wireless revolution, after the cellphone. From airport lounges and hotel meeting rooms to cafes and restaurants across the globe, wireless LANs are being built for mobile professionals to stay connected to the Internet.

The main objective of this tutorial is to provide participants with a strong foundation on the IEEE 802.11 wireless LAN standard. Although the main focus will be on understanding the 802.11b standard (by far the most dominant wireless LAN standard), the 802.11a, 802.11g, 802.11e, 802.11h, and 802.11i standards will also be discussed. It will also cover emerging wireless LAN applications including public access and home wireless networks.

This tutorial emphasizes core concepts and underlying principles. As such, it is accessible to a wide audience, including engineers, practitioners, scientists, professionals from manufacturers to service providers. A customized version of the tutorial has recently been conducted for the senior engineering and management staff at Qualcomm, Inc. in San Diego, CA, as well as the Office of Information Technology at Georgia Tech.

Biography of Instructor

Benny Bing (bennybing@ieee.org) is a research faculty member with the Georgia Institute of Technology. He has published over 30 technical papers and 5 books, including *Wireless Local Area Networks*, which has been adopted by Cisco Systems worldwide. His publications have also appeared in the *IEEE Spectrum*. He is guest editor on wireless LANs for the *IEEE Communications Magazine*, the *IEEE Wireless Communications Magazine* and the *IEEE Journal on Selected Areas in Communications*. He has been involved in wireless LAN technology for nearly a decade and has 7 years teaching experience.