

## Certificate of Course Completion

### Fundamentals of Wireless LANs



Michał Kowalski

Date : July 18, 2007  
Instructor : Sulikowski  
Bartłomiej  
Location : Zielona Góra  
Academy Name : University of  
Zielona Góra



*Bartłomiej Sulikowski*

Instructor's Signature

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During Fundamentals of Wireless LANs, administered by the undersigned instructor, the student demonstrated the following proficiencies:

- Design a logical WLAN architecture for mobile wireless users in compliance with 802.11 IEEE standards;
- Demonstrate knowledge in WLAN applications as they relate to EM spectrum, radio wave propagation, modulation techniques, and frequency and channel usage in wireless technologies;
- Installation of in-building and building-to-building WLANs with Cisco devices that meet mobility and throughput specifications including the site survey and documentation;
- Perform hardware setup and software configuration of Cisco Aironet APs and antennas for Ethernet/Radio ports, and services;
- Perform hardware setup and software configuration of Cisco Aironet equipment for Ethernet/Radio ports and services specific to the WLAN needs for Access Points, Bridges, Repeaters, and Site Survey Client functionality;
- Upgrade and distribute firmware on Cisco wireless products throughout a WLAN;
- Identify, define features of, and install, directional and omnidirectional antennas in both building-to-building and in-building WLANs;
- Design and setup of WLAN security using WEP, Cisco LEAP and 802.1x protocols;
- Troubleshoot WLAN performance issues using event loggings, command line utilities, and diagnostic tools.

DYREKTOR

*[Signature]*  
prof. dr/hab. inż. Józef Korbicz