

Topical Workshop on Antenna Pattern Measurement

時間：2007年7月19日下午1330~1730

地點：中山大學電資大樓 F6011

時間	項目	主持人 / 主講人
1330~1400	準備及就座	
1400~1530	Overview of Spherical Far Field Measurement Systems	李德宏博士 Research Scientist ElectroScience Lab. Ohio State Univ.
1530~1600	休息	
1600~1730	Introductory Passive and Active Mode 3D Antenna Measurement Applications in Wireless Communication	林健維經理 衛普科技公司 工程部

主辦單位：中山大學卓越研究小組(無線網路與多媒體中心)

協辦單位：IEEE Tainan Section / IEEE AP-S Tainan Chapter
高雄海洋科技大學海洋工程學院 / 正修科技大學工學院
台灣天線工程師學會(IAET)



Topical Workshop on Antenna Pattern Measurement



Dr. Teh-Hong Lee
Research Scientist
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□ Biography

Dr. Lee received the B.S. degree from National Taiwan University, Taipei, Taiwan, in 1980, and the M.Sc. and Ph.D. degrees from The Ohio State University, Columbus, Ohio, in 1984 and 1987, respectively, all in electrical engineering. Since 1982, he has been associated with the ElectroScience Laboratory, Department of Electrical Engineering, The Ohio State University, where presently he is a Research Scientist. His major research area is in the antenna analysis, design and measurement. He is the main developer of NEC Reflector Antenna Code at the ElectroScience Laboratory and has also been involved with design and upgrade of measurement facilities. He is a senior member of IEEE and a member of Antenna Measurement Techniques Association (AMTA).

□ Abstract

In this presentation, several commonly used spherical far field systems for antenna measurement will be reviewed. The spherical far field measurement system has been used in several decades to measure pattern characteristics of antennas. These systems include outdoor range, indoor rectangular and tapered chamber as well as compact range. The spherical far field system provides direct measurement of antenna patterns as compared to the near field measurement system that requires transformation from collected near field to far field to obtain the desired antenna patterns. Several important issues associated with indoor spherical far field chamber will also be discussed. Methods to evaluate the performance of measurement systems will also be addressed as they are very important in providing detail information about a given chamber and how well it can perform for various antenna measurements

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□ Lecture Subject

**INTRODUCTORY PASSIVE AND ACTIVE MODE 3D
ANTENNA MEASUREMENT APPLICATIONS FOR
WIRELESS COMMUNICATION**

□ Lecture Contents

- ✓ Growing Frontiers of Wireless Communication Applications
- ✓ Microwave Antenna and Antenna Radiation Pattern
- ✓ Methods of Microwave Antenna Measurement
- ✓ Measurement Facilities for Wireless Communication Antennas
- ✓ Major Error Sources for Wireless Communication Antenna Measurement
- ✓ Application to Mobile Phone Over-the-air Performance Characterization
- ✓ Conclusion: Why Goes 3D ?