

CURRICULUM VITAE

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Personal Data

Name : Dr. Thomas Franz Bechteler

Address : İzmir Üniversitesi, Mühendislik Fakültesi
Elektronik ve Haberleşme Mühendisliği Bölümü,
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Education

Graduate (Dipl.-Ing.) : “High-temperature Superconducting Coupling Structure
in the Microwave Band – Design, Simulation, and Fabrication”
(in German),
Technische Universität München,
Electronic and Information Technologies, June 1996.

Doktorate (Dr.-Ing.) : “Highly Linear Antenna Amplifiers with High Input Impedance
Realised with Fieldeffect Transistors” (in German),
Universität der Bundeswehr München, March 2001.

Work Experience

1984 – 1988 : Rohde & Schwarz, skilled worker
1994 : IRT, Central Research and Development Establishment for the
Public Broadcasting Organisations in Germany (ARD, ZDF, DLR),
Austria (ORF) and Switzerland (SRG/SSR), research assistant

1995 – 1996 : German Aerospace Center, research assistant
1996 – 2001 : Universität der Bundeswehr München, researcher
2001 – 2003 : Sabancı Üniversitesi, Post.-Doc.
2003 – 2007 : İzmir Institute of Technology, Assistant Prof.
2007 – 2008 : Milson Ltd. Radar and Sonar Technologies, Technical
in 2008 : Yaşar Üniversitesi, Associate Prof.
since 2008 : İzmir Üniversitesi, Associate Prof.

Given Lectures

Undergraduate : Introduction to Electric and Electronic Engineering
Logic Design
Semiconductor Devices
Circuit Analysis
Electronic Circuits
Introduction to RF Circuit Design
Telecommunication

Graduate: Microwave Devices and Applications
Microwave Measurement Techniques

Conducted Master Theses

1. Steffen Angermann: "Intermodulation of Wideband Amplifiers – K2 and K3 Simulations and Measurements" (in German), Universität der Bundeswehr München, 1995
2. Luis Afonso: "Wideband and Linear TV-Amplifiers", Universität der Bundeswehr München, 1995
3. Saygın Bildik: "Fabrication and Calibration of a Heterodyne Receiver for Microwave Sensors", İzmir Institute of Technology, 2008

Research Topics

- Microwave Devices and Circuits
- Measurement Techniques
- High Frequency Systems
- Antennas

Projects

1. "Design and Measurement of Components for the Echo Cancellation of Signals for Digital-High-Definition-TV Systems" - IRT, Central Research and Development Establishment for the Public Broadcasting Organisations in Germany (ARD, ZDF, DLR), Austria (ORF) and Switzerland (SRG/SSR) (1994)
2. "Development of a 10dB Microstripline Coupler at 3GHz" – TUM, Technische Universität München (1994)
3. "Design and Measurement of a High Frequency Amplifier with a Broad Bandwidth and Low Noise" - TUM (1995)
4. "Calculation, Production and Measurement of a Dielectric Lens for 94GHz" - TUM (1995)
5. "Computer Controlled Measurement Systems in the RF-Laboratory and Data Transfer Via Internet" - IYTE, Izmir Institute of Technology (2004), Grant No: 2004-IYTE-12
6. "Design and Production of printed Active Antenna Arrays" - IYTE (2004) , Grant No: 2004-IYTE-13
7. "Bi-directional Amplifiers for Wireless Communications at 2.5GHz and 5.8GHz" - TÜBITAK, Scientific and Technical Research Council of Turkey (2005), Grant-No: 104E103 (EEEAG-AY-61)
8. "Excitations of a Groove Guide Resonator at 10GHz - Numerical Simulation, Fabrication and Measurement" – TÜBITAK (2005), Grant No: 105E005 (EEEAG-AY-66)
9. "Antennas and RF-Systems for Wireless Consumer Electronics" - VESTEL company (2005-2006)
10. "Active Antennas for DVB-T Systems" - VESTEL company (2006-2008)
11. "Design and Fabrication of a Groove Guide Oscillator at 10GHz for Industrial Applications: 1. Distance Meter, 2. Dielectric Constant Measurement" - TÜBITAK (2006-2009), Grant No: 106E100
12. "Measurement and Characterisation of Satellite Antennas" - E.K.O. Endüstri (2011)

Languages

German (mother tongue)
Turkish (fluent)

English (fluent)
French (good basic knowledge)

Referee and Editorial

- International Journal of Electronics and Communication – AEÜ (2009)
- International Journal of Engineering Science – Elsevier (2010)
- Turkish Journal of Electrical Engineering and Computer Sciences (2010 – 2011)

Journal Papers

2011

- Thomas Franz Bechteler, A. Sevinç Aydınlık Bechteler: “The Groove-Guide Oscillator”, IEEE Microwave Magazine, vol. 12, no. 6, Oct. 2011, pp. 110-119.

2010

- Martin S. Bechteler, Christian M. Schessl, Thomas F. Bechteler: “Electrical Power Net Systems in Cars – Impedance Modeling and Measurement”, IEEE Trans. On Vehicular Technology, vol. 59, no. 3, Mar. 2010, pp. 1148-1155.

2009

2008

- Cem Civelek, Thomas F. Bechteler: “Lagrangian formulation of electromagnetic fields in nondispersive medium by means of the extended Euler-Lagrange differential equation”, Int. Journal of Engineering Science, vol. 46, Dec. 2008, pp. 1218-1227.
- Thomas F. Bechteler, Alp Kustepeli, A. Sevinc Aydinlik Bechteler: “Design of Coupling Structures for Groove Guide Resonators”, Microwave and Optical Technology Letters, vol. 50, no. 5, Mar. 2008, pp. 1406-1410.

2007

- Sevinc Aydinlik Bechteler, Thomas F. Bechteler: “Switchless Bidirectional Amplifier for Wireless Communication Systems”, Microwave and Optical Technology Letters, vol. 49, no. 8, Aug. 2007, pp. 1888-1890.

2006

2005

- Thomas F. Bechteler: “Analysis of Excitations for a Groove Guide Resonator at 10 GHz by Means of the FDTD Method”, Int. Journal of Infrared and Millimeter Waves, vol. 26, no. 6, Jun. 2005, pp. 819-830.
- Yasar Gürbüz, Mustafa Parlak, Thomas F. Bechteler, Ayhan Bozkurt: “An analytical design methodology for microelectromechanical (MEM) filters”, Elsevier, Science Direct, Sensors and Actuators A: Physical, vol. 119, issue 1, Mar. 2005, pp. 38-47.

2004

2003

- Bechteler Th. F., Yenigün H.: “2-D Localization and Identification Based on SAW ID-Tags at 2.5GHz”, IEEE Trans. on MTT, vol. 51, no. 5, May 2003, pp. 1584-1590.