

# MEHMET ERTUĞRUL ÇELEBİ

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## EDUCATION:

May 1990 Ph.D. in Electrical Engineering, Polytechnic University, Brooklyn, New York  
(Currently, NYU Tandon School of Engineering).

May 1984 M.S. in Electrical Engineering, Polytechnic University, Brooklyn, New York.

Feb. 1981 B.S. in Electrical Engineering, Istanbul Technical University, Istanbul.

May 1975 High School Diploma, Galatasaray Lisesi.

## EXPERIENCE:

2006- Professor, Istanbul Technical University, Istanbul.

1998-2006 Docent, Istanbul Technical University, Istanbul.

2001-2002 Visiting Research Professor, New Jersey Institute of Technology, New Jersey.  
Did research on Space-Time Codes in New Jersey Center for Wireless  
Telecommunications.

1999 June Visiting Researcher, Université du Paris Nord, Paris, France.  
Did research on discrete optimization problems.

1995-1999 Adjunct Professor, Galatasaray University, Istanbul.

1992-1997 Assistant Professor, Istanbul Technical University, Istanbul.

1991 Adjunct Lecturer, New Jersey Institute of Technology, Newark, New Jersey.

1990 Adjunct Lecturer, Polytechnic University, Brooklyn, New York.

1984-1988 Teaching Assistant, Polytechnic University, Brooklyn, New York.  
Lectured and supervised sophomore and junior Electrical Engineering Labs.

2003-2012 ABET Coordinator, Electronics and Communications Engineering Department.  
During his tenure, Electronics and Communications Engineering program has been  
deemed "substantially equivalent" without any "deficiency".

2016- Director, Telecommunication Engineering Graduate Program.

**AWARDS:** Scholarship to pursue graduate studies in the USA as a result of a nationwide  
examination.

## MEMBERSHIPS:

IEEE Communications Society, IEEE Signal Processing Society, IEEE Information Theory  
Society.

#### **COMPLETED M.S. THESES:**

- Becerikli, Yaşar, "Restoration of Images Distorted by Additive Gaussian Noise through Kalman Filtering," 1994.
- Dündar, Sıdık, "Subband Coding of Digital Images," 1995.
- Dişbudak, Melike, "A Novel Approach to Image Restoration by Wiener Filtering," 1995.
- Özboyacı, Şebnem, "Image Restoration by Edge Adaptive Kalman Filtering," 1995.
- Ölçer, İbrahim, "Inverse synthetic aperture radar imaging," 1995.
- Yıldırım, Servet, "Speech Analysis, Speech Compression and Coding Algorithms," 1995.
- Yananlı, H. Nur, "Restoration and Compression of Fingerprint Images by Directional Filtering Wavelet Transformations," 1996.
- Sivakçı, Uğur, "Markov random random fields and a multiscale implementation of markov random fields on bayesian image segmentation," 1998.
- İsnık, Mustafa, "V.32 bis Modem Design Using Digital Signal Processor," 2001.
- Körük, Soner, "Error Rate Improvement of Space-Time Block Codes through Quantized Feedback," 2006.
- Kahraman, Sinan, "Fast Decoding Methods for Space-Time Codes," 2007.
- Deva, Mert, "Improvement of Bit-Error Rates through Optimum Power Allocation in Cooperative Diversity Systems," 2008.
- Toker, Ebru, "The Effects of Quantized Precoders in Cooperative Diversity Systems," 2008.
- Çınar, Sayat, "Low-Complexity Space-Time Coded OFDM Systems," 2010.
- Özer, Reşat Andaç, "File Sharing over Wireless Mesh Networks through Network Coding Applications," 2011.
- Dönmez, Nevin, "A Game Theoretic Approach to Uplink Power Control in CDMA Networks," 2011.
- Şahin, Yakup "The Analysis Of The Effect Of The Measurement Noise On The Hybrid Time Of Arrival/angle Of Arrival Method," 2011.
- Fındıklı, Çağlar, "Performance of IEEE 802.15.4a Based UWB Systems in the Presence of Licensed Systems," 2012.
- İngök, Serdar, "Eigenvalue Based Spectrum Sensing Techniques for Cognitive Radio," 2012.
- Özdamar, Abdülkadir, "A Study of Selective per Antenna Rate Control (S-PARC) on Linear Space-Time Codes," 2013.
- Aslan, Ergin, "A Low Complexity Detector For Very Large MIMO," 2016.

#### **COMPLETED Ph.D. THESES:**

- Apohan, A. Murat, "A new cryptanalysis method of cellular automata based encryption systems," 2000.
- Sarı, Faruk, "The Learning of Blur and Image Parameters and Image Restoration," 2006.
- Ekşim, Ali, "Extended Balanced Space-Time Block Coding in Wireless Networks," 2011.
- Kahraman, Sinan, "Efficient Maximum Likelihood Decoding from Space-Time Block Code to Polar Coding," 2014.

- Demiroğlu, Ali Serdar, “Cooperative Diversity Systems with Continuous Phase Frequency Shift Keying Modulation,” 2014 (co-advised with Prof. Dr. İbrahim Altunbaş who was the main advisor).
- Altın, Gökhan, “Low-Complexity Detection and Cooperative Communication for Spatial Modulation Systems,” 2018.
- Emam, Said Abdelmoneim Abdelwahab, “Design and Performance Analysis of Relay-Based Cooperative Overlay Cognitive Radio Networks,” 2018.

**UNDERGRADUATE COURSES:**

- Analog Communications
- Digital Communications
- Image Processing Fundamentals
- Discrete-Time Signals and Systems
- Signals and Systems
- Probability and Statistics
- Linear Algebra
- Introduction to Optimization
- Random Signals and Noise
- Signaux et Systèmes (Galatasaray University)
- Circuits Logiques (Galatasaray University)
- Circuits Électroniques (Galatasaray University)
- Electronics Circuits III (New Jersey Institute of Technology)
- Solid State Devices and Circuits II (Polytechnic University)

**GRADUATE COURSES:**

- Principles of Digital Filters
- Detection and Estimation Theory
- Pattern Recognition
- Probability Theory and Stochastic Processes
- Signals, Systems, and Transforms (Polytechnic University)
- Selected Topics in Telecommunications (Optimization Techniques)

**RESEARCH INTERESTS:**

- Coding for MIMO Systems
- Fast Decoding Methods for Massive MIMO Systems
- Cooperative Communications
- Cognitive Radio
- Non Orthogonal Multiple Access
- Visible Light Communications
- Molecular Communications

**PERSONAL:** Married, father of a son, enjoys listening to classic rock, world music and jazz.