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EDUCATION

- Ph.D in Electrical Engineering September 2005 - February 2011
Massachusetts Institute of Technology (MIT), Cambridge, MA
GPA: 4.8/5.0
Thesis: "Exponential Bounds on Error Probability with Feedback" (DSpace)
- M.Sc. in Electrical Engineering and Computer Science September 2003 - September 2005
Massachusetts Institute of Technology (MIT), Cambridge, MA
GPA: 4.9/5.0
Thesis: "Variable Block Length Coding for Channels with Feedback and Cost Constraints" (DSpace)
- B.Sc. in Electrical and Electronics Engineering and in Physics September 1998 - June 2002
Middle East Technical University (METU), Ankara, TURKEY
GPA: 3.99/4.00 (EEE Major), 4.00/4.00 (Physics Major)
1st rank in EEE Department, 2nd rank in University

RESEARCH EXPERIENCE

Information Theory and Communications:

- Published About: Variable-length codes, error-and-erasure decoding, unequal error protection, feedback encoding schemes.
- Side Interests: large deviations, network science.

TEACHING EXPERIENCE

Teaching Assistant for *6.452 Principles of Wireless Communications* Spring 2006

PROFESSIONAL EXPERIENCE

- TÜBİTAK-BİLTEN (now known as TÜBİTAK-UZAY), Ankara, TURKEY*
Information Technologies and Electronics Research Institute September 2002-July 2003
- Participated in the design of radio frequency (X-Band) power amplifier for a satellite communication system: conducted software simulations, experiments on the hardware.

AWARDS

- Bronze Medal, with 62nd rank
29th International Physics Olympiad (IPhO), Reykjavik, Iceland July 1998
- Bronze Medal in Physics
5th National Science Olympiad, Ankara, Turkey December 1997
- 3rd rank in individual competition in Mathematics
7th International Test Rating Olympiad Intellectual Marathon; Antalya, Turkey November 1997

PUBLICATIONS

Journal Papers

1. S. K. Gorantla, B. Nakiboğlu, T. P. Coleman, L. Zheng, “Multi-layer Bit-wise Unequal Error Protection for Variable Length Blockcodes with Feedback,” *Submitted to IEEE Transactions on Information Theory, January 2011.*
arXiv:1101.1934v1 [cs.IT]
2. B. Nakiboğlu, L. Zheng, “Errors-and-Erasures Decoding for Block Codes With Feedback,” *IEEE Transactions on Information Theory*, Vol 58 Issue 1, pp 24-49, January 2012.
arXiv:0903.4386v4 [cs.IT]
3. R. G. Gallager, B. Nakiboğlu, “Variations on a theme by Schalkwijk and Kailath,” *IEEE Transactions on Information Theory*, Vol 56 Issue 1, pp 6-17, January 2010.
arXiv:0812.2709v4 [cs.IT]
4. S. P. Borade, B. Nakiboğlu, L. Zheng, “Unequal Error Protection: An Information-Theoretic Perspective,” *IEEE Transactions on Information Theory*, Vol 55 Issue 12, pp 5511-5539, December 2009.
arXiv:0803.2570v4 [cs.IT]
5. P. Berlin, B. Nakiboğlu, B. Rimoldi, E. İ. Telatar, “A Simple Converse of Burnashev’s Reliability Function,” *IEEE Transactions on Information Theory*, Vol 55 Issue 7, pp 3074-3080, July 2009.
arXiv:cs/0610145v3 [cs.IT]
6. B. Nakiboğlu, R. G. Gallager, “Error Exponents for Variable-length Block Codes with Feedback and Cost Constraints,” *IEEE Transactions on Information Theory*, Vol 54 Issue 3, pp 945-963, March 2008.
arXiv:cs/0612097v1 [cs.IT]

Conference Papers

1. G. Como, B. Nakiboğlu, “Sphere-packing bound for block-codes with feedback and finite memory,” IEEE International Symposium on Information Theory, Austin, Texas, June 2010
2. S. K. Gorantla, B. Nakiboğlu, T. P. Coleman, L. Zheng, “Bit-wise unequal error protection for variable length block codes with feedback,” IEEE International Symposium on Information Theory, Austin, Texas, June 2010
3. B. Nakiboğlu, L. Zheng, “Upper bounds to error probability with feedback”
 - 47th Annual Allerton Conference on Communication, Control, and Computing, Monticello, IL, Sept 30 - Oct 2 2009
 - Information Theory and Applications Workshop, UCSD CA Jan 31 - Feb 5 2010
4. B. Nakiboğlu, L. Zheng, “Upper bounds to error probability with feedback” IEEE International Symposium on Information Theory, Seoul, Korea, July 2009.
5. B. Nakiboğlu, L. Zheng, “Errors-and-erasures decoding for block codes with feedback,” IEEE International Symposium on Information Theory, Toronto, Ontario, Canada, July 2008.
6. S. P. Borade, B. Nakiboğlu, L. Zheng,
 - “Some fundamental limits of unequal error protection” IEEE International Symposium on Information Theory, Toronto, Ontario, Canada, July 2008.
 - “Unequal error protection: some fundamental limits and optimal strategies,” Information Theory and Applications Workshop, UCSD, Jan. 2008.
7. B. Nakiboğlu, R. G. Gallager, M. Z. Win, “Error exponents for variable-length block codes with feedback and cost constraints,” IEEE International Symposium on Information Theory, Seattle, Washington, July 2006.