Eymen Kurdoglu

CONTACT

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EDUCATION

NYU Tandon School of Engineering / Ph.D., Electrical Engineering

- Advisors: Prof. Yao Wang, Prof. Yong Liu **Jan. 2012 - Dec. 2016 (expected)**

École Polytechnique Fédérale de Lausanne / M.Sc., Communication Sciences

- Advisors: Prof. Pascal Frossard, Dr. Nikolaos Thomos **Sep. 2008 - June 2010**

Middle East Technical University / B.Sc., Electrical and Electronics Engineering

- Double major: B.Sc., Department of Physics

WORK EXPERIENCE

NEC Labs America, Inc. / Internship, Optical Networking Group

- Supervisor: Dr. Dayou Qian **June 2013 - September 2013**
- Worked on optical multicasting for software-defined networking

SKILLS

C/C++, MATLAB, Python, Bash; libav, libx264; event-driven programming, distributed systems; Linux; Probabilistic analysis, Mathematical optimization, Networks, Machine Learning, Forecasting; French, German (intermediate); Drumming

RESEARCH

Maximizing the perceptual quality of video calls over unreliable networks

- *"Frame Rate and FEC Strategy Adaptation for End-to-End Quality Maximization for Video Calls with Packet Losses"*, (in preparation) E. Kurdoglu, Y. Liu, Y. Wang

Live 360 video streaming with adaptive bit-rate

- *"View Direction and Bandwidth Adaptive 360 Degree Video Streaming Using Two-Tier System"*, (submitted to ISCAS'17) F. Duanmu, E. Kurdoglu, Y. Liu, Y. Wang

Ground-up design of a video call app for cellular networks, with real-world Linux implementation (supported by WeChat International - Tencent Inc. in China)

- *"Real-time Bandwidth Prediction and Rate Estimation for Video Calls over Cellular Networks"*, E. Kurdoglu, Y. Liu, Y. Wang, Y. Shi, C. Gu, J. Lyu, ACM MMSys, 2016

High-level design of P2P multi-party video conferencing systems

- *"Dealing with User Heterogeneity in P2P Multi-party Video Conferencing: Layered Distribution Versus Partitioned Simulcast"*, E. Kurdoglu, Y. Liu, Y. Wang, IEEE Transactions on Multimedia, vol. 18, no. 1, 2016
- *"Dealing with User Heterogeneity in P2P Multiparty Video Conferencing: Layered Coding Versus Receiver Partitioning"*, E.Kurdoglu, Y. Liu, Y. Wang, Communication and Networking Techniques for Contemporary Video Workshop at INFOCOM, 2014

Optimizing coding and scheduling decisions for layered video streaming in P2P networks

- *"Adaptive Prioritized Random Linear Coding and Scheduling for Layered Data Delivery from Multiple Servers"*, N. Thomos, E. Kurdoglu, P. Frossard, M. van der Schaar, IEEE Transactions on Multimedia, vol. 17, no. 6, 2015
- *"Scalable Video Dissemination with Prioritized Network Coding"*, E. Kurdoglu, N. Thomos, P. Frossard, Streaming and Media Communication Workshop at ICME, 2011

Incentivizing nodes to perform network coding in mesh P2P networks

- *"Network Coding Node Selection Game in Collaborative Streaming Systems"*, N. Thomos, H. Park, E. Kurdoglu, P. Frossard, ICASSP, 2010

TEACHING

TA for *"Data Structures and Algorithms"*, *"Internet Architecture and Protocols"*, *"Communication Networks: Design and Algorithms"*, *"Information Theory and Coding"*

AWARDS

"Full Excellence Scholarship" for M.Sc. studies by EPFL, "Silver Project Award" in the Senior Design Course at METU EEE