Şükran Külekci

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EDUCATION

MSc. Computer Science and Engineering　　　　　　　　　1998-2001
Marmara University, Dept. of Computer Science and Engineering
　　Thesis Title: **"An Application Of Linear Cryptanalysis Method To DES Block Cipher"**

MSc. Mathematics　　　　　　　　　　　　　　　　　　1993-1996
Middle East Technical University, Dept. of Mathematics,
　　Thesis title: **"Π–Partial Characters"**

BSc. Mathematics　　　　　　　　　　　　　　　　　　1989-1993
Middle East Technical University, Dept. of Mathematics

WORK EXPERIENCE

Abbreviations:

- TÜBİTAK: Scientific and Technological Research Council, Turkey
- BİLGEM: Informatics and Information Security Research Center, Turkey
- UEKAE: National Research Institute of Electronics & Cryptology
- METU: Middle East Technical University, Turkey

**Visiting Instructor, Department of Computer Science
and Software Engineering, Miami University, Oxford, OH**　　2025- present
Teaching Quantum, Data Security, Cryptography (Graduate), Cybersecurity

Avionics Systems Engineer, TÜBİTAK-BİLGEM　　　　　　2021-2022
Validation and verification of security systems of National Combat Aircraft

Deputy Project Manager, TÜBİTAK-BİLGEM　　　　　　　2019-2021
National Combat Aircraft

Configuration Management Manager, TÜBİTAK-BİLGEM　　2018-2019
National Combat Aircraft

Project Monitoring and Evaluation, TÜBİTAK-BİLGEM　　2017-2018
Administrative observation of ongoing projects

General Coordinator,TÜBİTAK-BİLGEM　　　　　　　　　2013-2018
General coordinator of an umbrella initiative that includes multiple research and engineering projects with multi-million dollars budget. Main responsibilities are bridging the technical staff and the end users, consulting the customers on their needs and possible solutions, administrative and financial follow-up of the projects.

Science for Society Projects Manager,TÜBİTAK-BİLGEM 2010-2015

Founded, developed, and led various special short-term educational programs, mainly summer and winter schools, targeting K12 students, high-school students, university undergraduate and graduate students, and experienced researchers. The list of events are as follows:

- 2013 – Summer School on Selected Topics in Massive Data Management (CS undergraduates/graduates)
- 2013 – Open Problems in Mathematical and Computational Sciences (Gathering of international renown cryptography researchers. Given talks were then collected in the book `https://link.springer.com/book/10.1007/978-3-319-10683-0`)
- 2014 – Summer Schools on Cryptology (For K12/high-school/gifted high school students, university undergraduates, high school teachers)
- 2014 - Arithmetic of Finite Fields (WAIFI): `https://link.springer.com/content/pdf/bfm\%3A978-3-319-16277-5\%2F1`
- 2015 - Cryptography Days
- 2015 - Fast Software Encryption (FSE): International IACR Conference, `https://www.iacr.org/workshops/fse2015/registration.htm`

Unit Director, TÜBİTAK-BİLGEM-UEKAE 2010-2013

Founder and first director of the Mathematical and Computational Sciences `https://mcs.bilgem.tubitak.gov.tr/en/index.html` unit at National Research Institute of Electronics and Cryptology

Researcher - Senior Researcher - Chief Researcher,TÜBİTAK-UEKAE 1997-2010

Participated in the national projects focusing on data security and cryptography as researcher (1997-2002), senior researcher (2002-2007), and chief researcher (2007-2010).

Teaching and Research Assistant, METU 1993-1997

Taught and coordinated Calculus, Advanced Calculus, Linear Algebra courses