

## Albert Levi, Ph.D.

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### **Education**

1993 – 1999, Ph.D., Bogazici University, Dept. of Computer Engineering

1991 – 1993, M.Sc., Bogazici University, Dept. of Computer Engineering

1987 – 1991, B.Sc., Bogazici University, Dept. of Computer Engineering

### **Employment**

- 2015 – Professor of Computer Science and Engineering, Faculty of Engineering and Natural Sciences, Sabancı University, Istanbul, Turkey
- 2017 – 2018 Visiting Professor, Faculty of Computer Science, Dalhousie University, Halifax, NS, Canada
- 2008 – 2015 Associate Prof. of Computer Science and Engineering, Faculty of Engineering and Natural Sciences, Sabancı University, Istanbul, Turkey
- 2002 – 2007 Assistant Prof. of Computer Science and Engineering, Faculty of Engineering and Natural Sciences, Sabancı University, Istanbul, Turkey
- 2001 – 2002 Consultant, rTrust Technologies, USA
- 1999 – 2002 Post-doctoral research associate, Information Security Lab., Oregon State University, Corvallis, Oregon, USA
- 1999 – 2001 Visiting Asst. Prof., Oregon State University, Dept. of Electrical and Computer Engineering, Corvallis, Oregon, USA
- 1999 Instructor, Bogazici University, Computer Engineering Dept., Istanbul, Turkey
- 1991 – 1999 Research and Teaching Assistant, Bogazici University, Computer Engineering Dept.
- 1992 – 1999 Researcher, Bogazici University, Computer Engineering Dept., Computer Network Research Lab., Istanbul, Turkey

### **General Research Interests and Areas of Expertise**

- Information and Network Security
- Privacy and Security in Wireless, Body Area, Ad Hoc and Sensor Networks
- Digital Certificates and Public Key Infrastructures
- Application-level Network Security Protocols
- E-mail security
- Electronic Commerce and Electronic Payment Systems
- Cloud Computing Security
- Cryptography
- Computer Networks and Communications

### **Projects involved**

- FUSE: Full-managed secure gateway for Home Automation Systems, funded by TÜBİTAK (Scientific and Technical Research Council of Turkey) and NCBiR (National Centre for Research and Development in Poland), (PI; 2017 – 2020).
- Privacy-Preserving, Heterogeneous and Distributed Security Operation Center, funded by TÜBİTAK (Scientific and Technical Research Council of Turkey), (Researcher; 2017 – 2020).
- Secure Communication in Body Area Networks, funded by TÜBİTAK (Scientific and Technical Research Council of Turkey), (PI; 2015 – 2017).
- Akıllı cihazlarda tek kullanımlık anahtar ile güçlendirilmiş güvenli çoklu ortam iletişimi (Secure Multimedia Communication in Smart Devices Reinforced by using One-Time Keys), funded by Turkish Ministry of Science, Industry and Technology San-Tez program (project partner is Netaş Telekomünikasyon A.Ş., (PI; 2015 – 2017).
- Privacy Enhancement for Cloud-based Secure Transaction Signer, funded by Kuveyt Türk Participation Bank R&D Center and Kobil Ltd. (main funding by TÜBİTAK-TEYDEB), (PI; 2014 – 2016).
- Design and Development of Security Infrastructure for Mobile Sensor Networks, funded by TÜBİTAK (Scientific and Technical Research Council of Turkey), (PI; 2011 – 2013).
- Secure and Seamless Payment for Wireless Mesh Networks, funded by Türk Telekom, (PI; 2011 – 2013).
- Privacy Protecting Biometric Authentication Systems, funded by TÜBİTAK (Scientific and Technical Research Council of Turkey), (Researcher; 2006 – 2008).
- Secure and Scalable Key Distribution in Ad Hoc and Sensor Networks, funded by TÜBİTAK-CAREER program (PI; 2005 – 2010).

- Design and Realization of Secure Sensor Network Node Prototype on a Programmable Logic Device (FPGA), funded by TÜBİTAK (Researcher; 2004 - 2007).
- Development of a secure e-mail system based on Account Authority Digital Signature (AADS) model, in Oregon State Uni., sponsored by SITI co., (Researcher; 2000).
- Investigation of fast packet communication and security problems in wireless networks, in BU, sponsored by TÜBİTAK, (Researcher ; 1998).
- Development of key servers for Internet security, in BU, sponsored by B.U. Research Fund, (Researcher ; 1998).
- Design and simulation of computer networks, in BU, sponsored by B.U. Research Fund, (Researcher ; 1994).
- Frame relaying as a fast packet switching technique in heterogeneous computer networks, in BU, sponsored by B.U. Research Fund, (Researcher ; 1993).

### **Industrial Projects Involved**

- Medya Güvenlik Platformu– İleri Uygulamalar (Media Security Platform – Advanced Applications), project run by NETAŞ Telekomünikasyon A.Ş., funded by TÜBİTAK-TEYDEB (Scientific and Technical Research Council of Turkey, Technology and Innovation Funding Programs) under 1501 program, (Consultant; 2015 – 2016).
- STS (Secure Transaction Signer) - Bulut Tabanlı Uçtan Uca Güvenlik altyapısında Çevrimiçi İşlem İmzalama Teknolojisi (Online Transaction Signing in Cloud Based End-to-End Security Architecture), project run by Kuveyt Türk Participation Bank R&D Center and Kobil Ltd., funded by TÜBİTAK-TEYDEB (Scientific and Technical Research Council of Turkey, Technology and Innovation Funding Programs) under 1501 program, (Consultant; 2014 – 2016).
- AirTies Ürünlerinde İçerik Koruma Teknolojileri ve Ağ Güvenliğine Yönelik Yazılım ve Donanım Tasarımı Yapılması ve Geliştirilmesi (Design and Development of Software and Hardware for Network Security and Content Protection in Airties Products), project run by Airties A.Ş., funded by TÜBİTAK-TEYDEB (Scientific and Technical Research Council of Turkey, Technology and Innovation Funding Programs) under 1501 program, (Consultant; 2015 – 2015).
- Mobil İletişim Sistemleri için Akıllı Cihazlarda Medya Güvenliği Platformu (Media Security Platform for Mobile Operating Systems of Smart Phones), project run by NETAŞ Telekomünikasyon A.Ş., funded by TÜBİTAK-TEYDEB (Scientific and Technical Research Council of Turkey, Technology and Innovation Funding Programs) under 1511 program, (Consultant; 2014 – 2015).
- SIM Tabanlı Güvenlik Uygulamaları (SIM-based Security Applications), project run by PROVUS A MasterCard Company, funded by TÜBİTAK-TEYDEB Scientific and Technical Research Council of Turkey, Technology and Innovation Funding Programs) under 1511 program, (Consultant; 2012 – 2014).
- Development of Broadband Service Manager, sponsored by Gantek Technologies, Turkey, funded by TÜBİTAK-TEYDEB and TTGV (Technology Development Foundation of Turkey) (co-PI; 2004 – 2005).

### **Educational Experience**

- Teaching C++ (service course), Advanced Programming and Data Structures, Computer Networks (grad and undergrad level), Computer and Network Security (grad and undergrad level), Wireless, Ad Hoc and Sensor Networks Security (grad level), Privacy Preserved Data Management (grad level) courses
- Teaching the Pascal Programming Language, Microprocessor Based System Design and Computer Architecture courses

### **Supervised M.Sc. and Ph.D. Theses**

1. Duygu Karaoğlan Altop, "Secure intra-network communication for body area networks", Ph.D. Thesis, 2016.
2. Süleyman Kardaş, "Security and Privacy in RFID Systems", Ph.D. Thesis, 2014 (recipient of Gürsel Sönmez research award).
3. Belal Mohammed Amro, "Privacy aware collaborative traffic monitoring via anonymous access and autonomous location update mechanism", Ph.D. Thesis, 2012.
4. Hayretidin Bahşi, "Privacy preserving data collection framework for user centric network applications", Ph.D. Thesis, 2010.
5. Ömer Mert Candan, "Secure Multimedia Communication in Smart Devices Reinforced by using One-time Keys", M.Sc. Thesis, 2017.
6. Laleh Eskandarian, "Secure Key Agreement Using Cancelable and Noninvertible Biometrics Based on Periodic Transformation", M.Sc. Thesis, 2017.
7. Dilara Akdoğan, "Secure key agreement using pure biometrics", M.Sc. Thesis, 2016.
8. Naim Alperen Pulur, "Medically Adaptive Role Based Access Control Model (MAR-BAC)", M.Sc. Thesis, 2015.
9. Can Serhat Leloğlu, "Secure and seamless prepayment for wireless mesh networks", M.Sc. Thesis, 2013.
10. Merve Şahin, "Dynamic keyring update mechanism for mobile wireless sensor networks", M.Sc. Thesis, 2013.

11. A. Onur Çatakoğlu, "Uneven key predistribution scheme for multiphase wireless sensor networks", M.Sc. Thesis, 2013.
12. Salim Sarımurat, "Hash graph based key predistribution scheme for mobile and multiphase wireless sensor networks", M.Sc. Thesis, 2013.
13. Fırat Hamit Tahaoğlu, "A security and privacy infrastructure for cloud computing using group signatures", M.Sc. Thesis, 2012.
14. Osman Kiraz, "Maintaining trajectory privacy in mobile wireless sensor networks", M.Sc. Thesis, 2012.
15. Can Yıldızlı, "Increasing chances of survival for malware using theory of natural selection & the selfish gene", M.Sc. Thesis, 2011.
16. Kübra Kalkan, "A key distribution scheme for mobile underwater wireless sensor networks", M.Sc. Thesis, 2011.
17. Mustafa Ozan Uysal, "A security framework for mobile communication", M.Sc. Thesis, 2011.
18. Oya Şimşek, "A distributed scheme to detect wormhole attacks in mobile wireless sensor networks", M.Sc. Thesis, 2011.
19. Kevser Karaca, "A key distribution scheme tailored for mobile sensor networks", M.Sc. Thesis, 2011.
20. Hüseyin Ergin, "Implementation of key distribution schemes on real sensor network nodes", M.Sc. Thesis, 2011.
21. Can Yücel, "A secure prepaid micropayment scheme for wireless mesh networks", M.Sc. Thesis, 2010.
22. Murat Ergun, "Resilient and highly connected key predistribution schemes for wireless sensor networks", M.Sc. Thesis, 2010.
23. Duygu Karaoğlu, "A key establishment scheme for wireless mesh networks using identity-based cryptography and threshold secret sharing", M.Sc. Thesis, 2009.
24. Ömer Zekvan Yılmaz, "The effect of time dimension and network dynamics on key distribution in wireless sensor networks", M.Sc. Thesis, 2009.
25. Can Berk Güder, "Efficient and secure delivery of area-persistent safety messages in vehicular ad hoc networks", M.Sc. Thesis, 2008.
26. Abdülhakim Ünlü, "Two-tier, location-aware and highly resilient key predistribution scheme for wireless sensor networks", M.Sc. Thesis, 2006.
27. Sinan Emre Taşçı, "Simple and Flexible Random Key Predistribution Schemes for Wireless Sensor Networks Using Deployment Knowledge", M.Sc. Thesis, 2006.
28. Zafer Gürel, "The Design and Development of Secure Password Synchronization and Querying System for Enterprise Networks", M.Sc. Thesis, 2004.
29. Çağrı Can Öviz, "Design and Development of Cryptographic Fair Exchange Protocols", M.Sc. Thesis, 2004.
30. Burak Bayoğlu, "WTLS (Wireless Transport Layer Security) is the security protocol designed for WAP (Wireless Application Protocol) protocol stack. Negotiation of the security", M.Sc. Thesis, 2004.
31. Mahmut Özcan, "Design and development of practical and secure e-mail system", M.Sc. Thesis, 2003.

### **Organizational and Administrative Experience**

- Program co-chair of ISCIS 2016 (31<sup>st</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2015 (30<sup>th</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2014 (29<sup>th</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2013 (28<sup>th</sup> International Symposium on Computer and Information Sciences).
- General chair, NTMS 2012 (5<sup>th</sup> IFIP International Conference on New Technologies, Mobility and Security).
- Program co-chair of ISCIS 2012 (27<sup>th</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2011 (26<sup>th</sup> International Symposium on Computer and Information Sciences).
- Workshops chair for NTMS 2011 (4<sup>th</sup> IFIP International Conference on New Technologies, Mobility and Security)
- Publicity co-chair for GameSec 2010 - Conference on Decision and Game Theory for Security.
- Program Committee co-Chair for Security Track of NTMS 2009 (3<sup>rd</sup> International Conference on New Technologies, Mobility and Security).
- General Chair of SecureComm 2008 (4<sup>th</sup> International Conference on Security and Privacy in Communication Networks).
- Local Arrangements Chair of MASCOTS 2007 (15th Annual Meeting of the IEEE International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems).
- General and Program co-Chair of ISCIS (International Symposium on Computer and Information Sciences) 2006.
- Chair of external transfers committee at Sabanci University, 2008 – 2012.
- Member of Graduate School Administrative Board at Sabanci University, 2008 – now
- Member of Graduate School Board at Sabanci University, 2011 – now
- Member of Faculty Board at Faculty of Engineering and Natural Sciences, Sabanci University, 2011 – 2015
- Member of Accreditation Committee at Sabanci University, 2012 – now
- Faculty representative to Undergraduate Programs Recruitment Committee, 2008 - 2012
- CS program graduate advisor at Sabanci University, 2005 – 2012.
- Member of external transfers committee at Sabanci University, 2005 – 2012, 2014.
- CS program coordinator at Sabanci University, 2004 – 2005.

- Chair of the Academic Archive Committee at Sabanci University, 2003 – 2009.
- Participation in the organizing committee of the TAINN 93, ISCIS 94, BAS 96 and ISCIS 97 symposiums.
- Member of the team of the “Elektronik Ticaret Uygulama Gösterileri” which is a roadshow on the electronic commerce applications. This show has been presented about 15 times throughout Turkey in 1998 and 1999.
- Assistant to summer training coordinator, 1998 - 1999.
- Academic advisory for the undergraduate students, 1992 – now.

### **Academic Service**

- Editorial Board Member, IET Wireless Sensor Systems, 2013 – now.
- Editorial Board Member, Computer Networks, Elsevier, 2012 – now.
- Editorial Board Member, Information Security Journal: A Global Perspective, Taylor & Francis, 2012 – now.
- Editorial Board Member, The Computer Journal, Oxford University Press, 2009 – now.
- Guest Editor, Ad Hoc Networks (Elsevier), Special Issue on “Smart Solutions for Mobility Supported Distributed and Embedded Systems”, 2013.
- Program co-chair of ISCIS 2016 (31<sup>st</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2015 (30<sup>th</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2014 (29<sup>th</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2013 (28<sup>th</sup> International Symposium on Computer and Information Sciences).
- General chair, NTMS 2012 (5<sup>th</sup> IFIP International Conference on New Technologies, Mobility and Security).
- Program co-chair of ISCIS 2011 (26<sup>th</sup> International Symposium on Computer and Information Sciences).
- Program co-chair of ISCIS 2012 (27<sup>th</sup> International Symposium on Computer and Information Sciences).
- Workshops chair for NTMS 2011 (4<sup>th</sup> International Conference on New Technologies, Mobility and Security)
- Publicity co-chair for GameSec 2010 - Conference on Decision and Game Theory for Security.
- Program Committee co-Chair for Security Track of NTMS 2009 (3<sup>rd</sup> International Conference on New Technologies, Mobility and Security).
- General Chair of SecureComm 2008 (4<sup>th</sup> International Conference on Security and Privacy in Communication Networks).
- Local Arrangements Chair of MASCOTS 2007 (15<sup>th</sup> Annual Meeting of the IEEE International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems).
- General and Program co-Chair of ISCIS (21<sup>st</sup> International Symposium on Computer and Information Sciences) 2006.
- Technical Program Committee Member – IEEE CNS (IEEE Conference on Communications and Network Security), 2013, 2014, 2015, 2016 and 2017.
- Technical Program Committee Member - iNetSec (Workshop on Open Research Problems in Network Security), 2009, 2010, 2011, 2015 and 2017.
- Technical Program Committee Member - CANS (The International Conference on Cryptology and Network Security), 2016.
- Technical Program Committee Member - N2S (International Conference on Network and Service Security), 2009.
- Technical Program Committee Member - PST (Annual Conference on Privacy, Security and Trust), 2009, 2011.
- Technical Program Committee Member - Inscript (International Conference on Information Security and Cryptology), 2008, 2009, 2010 and 2011.
- Technical Program Committee Member - Q2SWinet (ACM International Symposium on QoS and Security for Wireless and Mobile Networks), 2008, 2009, 2010, 2011, 2012.
- Technical Program Committee Member - BlackSeaCom (International Black Sea Conference on Communications and Networking), 2017.
- Technical Program Committee Member - WISTP (Workshop in Information Security Theory and Practice), 2014 and 2015.
- Technical Program Committee Member - SOSOC (International Workshop on Security in Opportunistic and SOCIAL Networks), 2008.
- Technical Program Committee Member - SESOC (International Workshop on SECURITY and SOCIAL Networking), 2010, 2011, 2012, 2013 and 2014.
- Technical Program Committee Member - IFIP SEC 2010 (25th International Information Security Conference).
- Technical Program Committee Member - SecIoT (International Workshop on the Security of the Internet of Things) 2010, 2012.
- Technical Program Committee Member - DSPSR 2011 (IEEE/IFIP EUC Workshop on Data Management, Security and Privacy in Sensor Networks and RFID).
- Technical Program Committee Member - 2012 Summer FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA-Summer).
- Technical Program Committee Member - 1st ACM Cyber-Physical System Security Workshop (CPSS 2015).
- Technical Program Committee Member - The 3rd International Conference on Future Internet of Things and Cloud (FiCloud-2015)

- Technical Program Committee Member - The 10th International Conference on Future Networks and Communications (FNC-2015)
- Technical Program Committee Member - International Conference on Future Network Systems and Security (FNSS), 2015 and 2016.
- Technical Program Committee Member - The 6th FTRA International Symposium on Advances in Computing, Communications, Security, and Applications (ACSA-14).
- Technical Program Committee Member - 10th International Conference on Information Security Practice and Experience (ISPEC 2014).
- Technical Program Committee Member - International Workshop on Cloud Security (IWOCSS2014).
- Technical Program Committee Member - Advanced Intrusion Detection and Prevention Workshop (AIDP'14).
- Technical Program Committee Member - Second International Conference on Security in Computer Networks and Distributed Systems (SNDS-2014)
- Technical Program Committee Member - International Conference on Connected Vehicles & Expo (ICCVE), 2012, 2013, 2014 and 2015.
- Technical Program Committee Member – SUCoS 2010 (The First International Conference on Security-enriched Urban Computing and Smart Grid).
- Technical Program Committee Member - SocialComNet (International Workshop on Social Computing, Network, and Services), 2011.
- Technical Program Committee Member - LightSec (Workshop on Lightweight Security & Privacy) 2011, 2013, 2014, 2015 and 2016.
- Technical Program Committee Member - NTMS (International Conference on New Technologies, Mobility and Security), 2011, 2012.
- Technical Program Committee Member - ISCIS (International Symposium on Computer and Information Sciences) 2001, 2004, 2005, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015 and 2016.
- Technical Program Committee Member - ICCCN (International Conference on Computer Communications and Networks) 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009 and 2010.
- Technical Program Committee Member - IEEE/Create-Net SecureComm (International Conference on Security and Privacy in Communication Networks), 2006, 2007 and 2008.
- Technical Program Committee Member - SECRYPT (International Conference on Security and Cryptography), 2006, 2007, 2008, 2009, 2010, 2012, 2013, 2014, 2015, 2016 and 2017.
- Technical Program Committee Member - IFIP/TC6 Networking, 2007, 2008 and 2013.
- Technical Program Committee Member - IASTED CNIS (The IASTED International Conference on Communication, Network, and Information Security), 2007.
- Technical Program Committee Member - ISA (International Conference on Information Security and Assurance), 2008, 2011.
- Technical Program Committee Member - IEEE Globecom (The IEEE Global Communications Conference), 2007, 2012, 2015.
- Technical Program Committee Member - International Conference on Advances in Computing, Communications and Informatics (ICACCI), 2014 and 2016.
- Technical Program Committee Member - SINCONF (International Conference on Security of Information and Networks), 2007, 2009, 2010, 2011, 2012, 2013, 2014, 2015 and 2016.
- Technical Program Committee Member - IEEE SIU (IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı), 2012, 2014, 2015 and 2017.
- Technical Program Committee Member - IEEE ICC (Network Security and Information Assurance Symposium), 2006, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017.
- Technical Program Committee Member - IEEE ISCN (International Symposium on Computer Networks), 2006 and 2008.
- Technical Program Committee Member - IEEE PIMRC (Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications), 2011.
- Technical Program Committee Member - ANT (International Conference on Ambient Systems, Networks and Technologies), 2011, 2012, 2013, 2014.
- Technical Program Committee Member - IEEE CloudCom (IEEE International Conference on Cloud Computing Technology and Science), 2013 and 2014.
- Technical Program Committee Member - CSS 2013 (5<sup>th</sup> International Symposium on Cyberspace Safety and Security).
- Technical Program Committee Member - IEEE ISSNIP 2013 (IEEE Eighth International Conference on Intelligent Sensors, Sensor Networks and Information Processing).
- Technical Program Committee Member - EUSPN 2013 (4th International Conference on Emerging Ubiquitous Systems and Pervasive Networks).
- Technical Program Committee Member - IEEE D-SPAN 2013 (4th IEEE International Workshop on Data Security and Privacy in Wireless Networks).

- Technical Program Committee Member - SECURWARE 2016 (The Tenth International Conference on Emerging Security Information, Systems and Technologies).
- Technical Program Committee Member - SSCC 2013 (International Symposium on Security in Computing and Communications).
- Technical Program Committee Member - IASTED NCS (The IASTED International Conference on Networks and Communication Systems), 2006.
- Technical Program Committee Member - SECQOS 2006 (Workshop on Security and QoS in Communication Networks), 2006.
- Technical Program Committee Member – EWSN (European Workshop on Wireless Sensor Networks), 2005.
- Technical Program Committee Member – Med-Hoc-Net (Annual Mediterranean Ad Hoc Networking Workshop), 2004.
- Review Committee Member, ACSAC (Annual Computer Security Applications Conference), 2002, 2003, 2004 and 2005
- Reviewer for numerous symposia, conferences, workshops and journals, including IEEE Transactions on Computers, IEEE Transactions on Mobile Computing, IEEE Transactions on Signal Processing, IEEE Transactions on Information Forensics and Security, IEEE Internet of Things Journal, IEEE Computer, International Journal of Information Security (Springer), IET Communications, IET Information Security, ACM MONET, Computer Networks (Elsevier), Computer Communications (Elsevier), Ad Hoc Networks (Elsevier), Computers & Security (Elsevier), Journal of Systems and Software (Elsevier), WiNet (Wireless Networks), The Computer Journal, Pervasive and Mobile Computing (Elsevier), Journal of Intelligent Manufacturing (Springer), International Journal of Communication Systems (Wiley), Security and Communication Networks (Wiley), Future Generation Computer Systems (Elsevier), Wireless Personal Communications (Springer), Journal on Wireless Communications and Networking, International Journal of Distributed Sensor Networks, Journal of Information Security and Applications, Journal of Homeland Security and Emergency Management, Journal of Optimization Theory and Applications, International Journal of Information Security and Privacy (IGI-Global), IEEE INFOCOM, IEEE WCNC (IEEE Wireless Communications and Networking Conference), CHES (Cryptographic Hardware Embedded Systems) workshop, ICC (International Conference on Comm.), ISCC (International Symposium on Computer and Comm.), ISWPC (International Symposium on Wireless and Pervasive Computing), ACM SIGCOMM Asia Workshop, IEEE PIMRC, International Journal of Electronic Business (IJEB), Elektrik (TÜBİTAK), The Handbook of Information Security (Wiley).
- Project referee and inspector for various programs of TÜBİTAK TEYDEB, Teknogirisim (Starting Project Grant for SMEs), TTGV (Technology Development Foundation of Turkey), KOSGEB, Türk Telekom, STW (Dutch Research Foundation), and FWF (Austrian Science Fund).
- R&D Center Evaluation Committee Member/Referee for Ministry of Industry and Trade of Turkey
- Panel member for project proposal evaluations submitted to various programs of TÜBİTAK EEEAG.
- Panel member for project proposal evaluations submitted to SAN-TEZ program of Turkish Ministry of Science, Industry and Technology.
- Panel member for scholarship applications submitted to TÜBİTAK BİDEB.
- Promotion Committee Memberships both in Turkey and abroad.
- Evaluator for applications to TUBA-GEBIP (Turkish Academy of Sciences - The Young Scientists Award Programme).
- Evaluator for applications to TÜBİTAK Science Prizes Awards.
- Referee for Turkish Technology Awards, 2009, 2010 and 2012.
- Independent expert to evaluate projects proposed to FP6 – IST programme (security and dependability area).
- Independent expert acting as reviewer of ongoing projects for FP7.
- Independent expert to evaluate projects proposed to CHIST-ERA.
- Reviewer of well-known textbook by William Stallings, Cryptography and Network Security: Principles and Practice, 5<sup>th</sup> ed., 2012.

### **Scholarship, Prize and Memberships**

2013 – now	Associate Member of SysSec Consortium ( <a href="http://www.syssec-project.eu/">http://www.syssec-project.eu/</a> )
2011	Türk Telekom Research Collaboration Award
2007	Graduating Class Award (at Sabanci University)
2005	TÜBİTAK Kariyer Award.
1994 - 1997	TÜBİTAK-BİDEB (formerly BAYG) Ph.D. Scholarship
1991	Graduation High Honor Grade (top 4 <sup>th</sup> of the Department)
1995 - now	ACM, ACM SIGCOMM and ACM SIGSAC Memberships
1996 - now	IEEE and IEEE Communication Society Memberships
1999 - now	IEEE Computer Society Membership

### **Keynote Talk**

1. "Wireless sensor network security: trends and challenges", delivered at ICPCA 2012 - 7th International Conference on Pervasive Computing and Applications, 28 November 2012, Istanbul, Turkey.

### **Invited Talks and Invited Panels**

1. "Bitcoin: what is it? why it exists? how it survives?", NS-Future Seminar Series, Sabanci University, November 16, 2016.
2. "Key distribution in various network models", International Symposium on Cyber Defense and Security (IS'CyDeS 2016), METU, Ankara, Turkey, May 13, 2016.
3. Invited talk about "Information and network security research" at HAVELSAN 2. Üniversite Sanayi Buluşmayı: Sıbergüvenlik (HAVELSAN 2<sup>nd</sup> University-Industry Collaboration Workshop on Cybersecurity), Ankara, Turkey, April 29, 2016.
4. "Anahtar dağıtımında kriptografik ve kriptografik olmayan yöntemler – Cryptographic and Non-cryptographic methods for key distribution", Uzay ve Hava Gücü Forumu - UZHAF 2016 (Space and Air Force Forum), Turkish Air Force Academy, Istanbul, Turkey, February 24, 2016.
5. "Hash graph based key predistribution scheme for mobile multiphase wireless sensor networks", delivered at BalkanCrypt 2013 - First Workshop on Cryptography and Information Security in Balkans, Sofia, Bulgaria, November 7, 2013.
6. "Restricted and Mobile: Security in Mobile Wireless Sensor Networks", delivered at Crypto Days 2013, organized by TÜBİTAK BILGEM, June 15, 2013.
7. "Security & privacy research: act of following", panel presentation at United-States/Middle-East Workshop On Trustworthiness in Emerging Distributed Systems and Networks, organized by NSF, Koç University, June 5, 2012.
8. Invited Panelist at CSW 2011 - Second Computer Science Student Workshop, Istanbul, April 9, 2011.
9. Invited Panelist at BİLMOK 2011 - 7. Bilgisayar Mühendisliği Öğrencileri Kongresi (7<sup>th</sup> Computer Engineering Student Congress), Yeditepe University, Istanbul, Feb. 26, 2011.
10. Invited Panelist for the panel on "Turkish Regulation on Cryptographic Tools", organized by Internet User's Association of Turkey and Ankara Bar Association, March 22, 2011.
11. Invites talk about "Registered Email" as Workshop Chair at International Informatics Law Congress (Uluslararası Bilişim Hukuku Kurultayı - UBHK 2010), Izmir, June 11, 2010.
12. Delivered more than 15 public speeches organized by different universities, academic institutions, non-governmental organizations and press.

### **Personal**

**Nationality:** Republic of Turkey

**Birth Year:** 1969

**Marital Status:** Married, two children

**Languages:** English (very good), Turkish (native), Spanish (beginner level)

### **Selected Publications (excluding the ones in Turkish)**

**Ph.D. Thesis:** "Design and Performance Evaluation of the Nested Certification Scheme and its Applications in Public Key Infrastructures", Ph.D. Thesis, Bogazici University, Istanbul, Turkey, 1999, Supervisor: Prof. M. Ufuk Caglayan.

**Master Thesis:** "Development of Frame Relay Software for High Speed Packet Switched Networks", MS Thesis, Bogazici University, Istanbul, Turkey, 1993, Supervisor: Prof. M. Ufuk Caglayan.

### **Edited Volumes**

1. A. Levi, M. Badra, M. Cesena, M. Ghassemian, Ö. Gürbüz, N. Jabeur, M. Klonowski, A. Mana, S. Sargento and S. Zeadally, Proceedings of 2012 5th International Conference on New Technologies, Mobility and Security (NTMS 2012), IEEE, IEEE Catalog Number: CFP1268E-ART, ISBN: 978-1-4673-0229-6, May 2012.
2. A. Levi, E. Savaş, H. Yenigün, S. Balcısoy and Y. Saygın, Proceedings of International Symposium on Computer and Information Sciences - ISCIS 2006, Springer, LNCS 4263, October 2006.

### **Guest Editorial**

3. A. Levi, Ö. Gürbüz, A. Mana, M. Klonowski, M. Cesena, M. Ghassemian, and S. Sargento (eds.), "A special issue of ad hoc networks on Smart solutions for mobility supported distributed and embedded systems". Ad Hoc Networks vol. 15, pp. 1-3, April 2014.

### **Refereed Journal Papers and Book Chapters**

4. D. Karaoğlan Altop, A. Levi and V. Tuzcu, "Deriving Cryptographic Keys from Physiological Signals", Pervasive and Mobile Computing, vol. 39, pp. 65- 79, Elsevier, DOI: 10.1016/j.pmcj.2016.08.004, August 2017.

5. K. Kalkan, A. Levi and S. Zeadally, "Underwater and submerged wireless sensor systems: security issues and solutions", in *Wireless Sensor Systems for Extreme Environments: Space, Underwater, Underground and Industrial* (eds H. F. Rashvand and A. Abedi), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781119126492.ch15, June 2017 (invited book chapter).
6. A. Levi and S. Sarımurat, "Utilizing Hash Graphs for Key Distribution for Mobile and Replaceable Interconnected Sensors in the IoT Context", *Ad Hoc Networks*, vol. 57, pp. 3-18, Elsevier, DOI: 10.1016/j.adhoc.2016.08.013, March 2017.
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