TEL AVIV UNIVERSITY
Pursuing the Unknown

iCRC
Blavatnik Interdisciplinary
Cyber Research Center

Yuval Ne'eman Workshop
for Science, Technology and Security
Tel Aviv University

March 8 Meeting:

Presentation Speakers from Tel Aviv University:

Speaker: Yuval Shavitt
Bio: Professor of Electrical Engineering at Tel Aviv University. Before joining Tel Aviv University, he worked for four years at the Networking Center of Bell Labs, Holmdel, NJ. Has published seminal papers in the fields of caching, routing, IP hijack attacks, and network measurements. In 2004 he incepted the DIMES project for mapping the Internet infrastructure using thousands of lightweight software agents, which revolutionized the field of Internet measurement and mapping. Data gathered by DIMES was used by academies worldwide. In 2014 he established BGProtect, a company that uses the DIMES approach to protect nations and large organizations against IP hijack attacks and provide network infrastructure intelligence. Recenty, Prof. Shavitt was working on using deep learning solutions to network security problems, such as IP hijack detection and encrypted traffic classification.

Speaker: Lior Wolf
Bio: Lior Wolf is a full professor in the School of Computer Science at Tel-Aviv University, Israel and a research scientist manager at Facebook AI Research. He conducted postdoctoral research at prof. Poggio's lab at the Massachusetts Institute of Technology and received his PhD degree from the Hebrew University, under the supervision of Prof. Shashua. He is an ERC grantee and has won the ICCV 2001 and ICCV 2019 honorable mention, and the best paper awards at ECCV 2000 and ICANN 2016. His research focuses on deep learning for computer vision, audio synthesis, cyber, physics, and medicine.

Speaker: Dr. Amiram Moshaiov
Bio: Amiram Moshaiov is a faculty member of the Iby and Aladar Fleischman Faculty of Engineering, School of Mechanical Engineering, and a member of the Sagol School of Neuroscience at Tel-Aviv University. During the 80's he was a faculty member at MIT, USA. At TAU he heads a Research Group on Computational Intelligence which consists of 1 Post Doc, 6 PhD students & 3 MSc students (as of 2021). He was an Associate Editor of the IEEE Trans. on Emerging Topics in Computational Intelligence, as well as of the Journal of Memetic Computing. In addition, he has been a reviewer to many other scientific journals. Moshaiov was a member of the Management Board of the European Network of Excellence in Robotics. He is currently a member of the IEEE Task Force on Evolutionary Deep Learning and Applications and of the IEEE Task
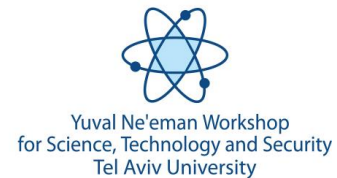
Force on Artificial Life and Complex Adaptive Systems. He is also a member of the EURO Working Group on Multicriteria Decision Aiding. Moshaiov has been a member and associate editor in many international program committees of conferences such as: The IEEE Int. Conf. on Systems, Man, and Cybernetics, The IEEE/RSJ Int. Conf. on Intelligent Robots and Systems, The IEEE Congress on Evolutionary Computation, The International Joint Conference on Neural Networks, The IEEE World Congress on Computational Intelligence, The IEEE Sym. on Artificial Life, The IEEE Sym. on Comp. Intelligence for Security and Defense Applications, The IEEE Sym. on Comp. Intelligence in Multi-criteria Decision Making, The Int. Conference on Parallel Problem Solving from Nature, The International Conf. on Simulated Evolution And Learning, The European Robotic Symposium, The Int. IFAC Symposium on Robot Control, The Int. Symposium on Tools and Methods of Competitive Engineering, The Int. Conf. on Engineering Design, The Int. Conference on Mechatronics, The IEEE Int. Conference on Control Applications, and The IEEE Int. Conference on Computational Cybernetics.


Presentation Speakers from Khalifa University

Speaker: Dr. Chan Yeob Yeun
Bio: Dr. Chan Yeob Yeun holds M.Sc. (1996) and Ph.D. (2000) degrees in Information Security from Royal Holloway, University of London. After his Ph.D., he joined Toshiba TRL in Bristol, UK, and later became a Vice President at LG Electronics, Mobile Handset R&D Center, in Seoul, Korea (2005) where he was responsible for developing mobile TV technologies and related security. He left LG Electronics in 2007 and joined KAIST (Korea) until August 2008 and then Khalifa University of Science and Technology in September 2008.
Dr. Yeun is currently a researcher in cybersecurity including IoT/USN security, cyber-physical system security, cloud/fog security and cryptographic techniques as an Associate Professor in the Department of Electrical Engineering and Computer Science and an active member of Center for Cyber-Physical Systems (C2PS). He also enjoys lecturing M.Sc. Information Security and Ph.D. Engineering courses at Khalifa University. He has published more than 130 journal articles and conference papers, nine book chapters and 10 international patent applications. He also serves on the editorial board of multiple international journals and on the steering committee of international conferences. He is a senior member of the IEEE.

Speaker: Dr. Hussam Hamadi
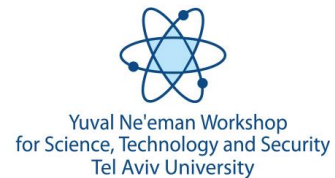
Bio: Hussam Al Hamadi, is a Senior IEEE Member and currently working as a Research Scientist in the Center for Cyber-Physical Systems (C2PS). His research interests focus on applied security testing for several systems like: software agents, SCADA, e-health systems and autonomous vehicles. He is also working on developing e-forensics techniques and security methodologies for smartphones and drones.

Speaker: Dr. Abdulhadi Shoufan
Bio: Dr. Abdulhadi Shoufan, Associate Professor at Khalifa University. Before joining Khalifa University he led the Security Hardware Group at the Center for Advanced Security Research, Darmstadt in Germany. He led different security projects funded by the German Federal Office of Information Security, Lockheed Martin, Boing, PSEG, Diehl Defence, etc. He is an expert in cryptographic hardware and embedded security and he is interested in Cyber Security in general. He had done relevant work on the role of experts in the assessment of security threats and objectives.

Agenda

12:00 – 12:05 Opening Remarks

Speaker: Maj. Gen. (Ret.) Prof. Isaac Ben-Israel, Director, Blavatnik ICRC, Tel Aviv University
Speaker: Dr. Ernesto Damiani Director, Khalifa University Center for Cyber Physical Systems (C2PS), Professor, Director of Information Security Center, Electrical and Computer Engineering & EBTIC

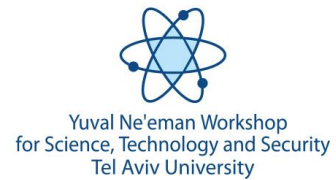**12:05 – 12:25 TAU Presentations – Each speaker will have 6 minutes to present**

1. Speaker: Lior Wolf, Professor in the School of Computer Science at Tel Aviv University
Title: "The deep learning lab at TAU"

2. Speaker: Yuval Shavitt, Professor of Electrical Engineering at Tel Aviv University
Title: A deep learning approach for IP hijack detection

3. Speaker: Dr. Amiram Moshaiov

Title: Multi-objective Optimization Approach to: a. Multi-Class Classification Networks; b. Attack-Defense Multi-Payoff Games

12:25– 12:45 Khalifa University Presentations - Each speaker will have 6 minutes to present

1. Speaker: Dr. Chan Yeob Yeun
Title: Deep user identification model with multiple biometrics and Prevention and detection of poisoning and adversarial Attacks by using AI

2. Speaker: Dr. Hussam Hamadi
Title: Cyber-Range Project by KU: Extending its Power and Usages

3. Speaker: Dr. Abdulhadi Shoufan
Title: Drones' Safe and Secure Operation

12:45 – 1:15 Discussion

1:15 – 1:30 Discussion: Support for Cooperation Under the Current Schemes