



October 2018 issue

We congratulate our undergraduate students, graduate students, and faculty for the opening of 2018-2019 academic year!

The departmental newsletter is distributed at the beginning of each semester to publish teaching and research activities in the department among students and faculty.

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The department in numbers

This year 260 undergraduate students started their first year of academic studies. In total, there are 911 undergraduate students in the department: 819 major in Electrical Engineering and 92 in Computer Engineering. There are 96 M.Sc. students and 58 Ph.D. students. In the last graduation ceremony, there were 175 B.Sc. students, 24 M.Sc. students and 9 Ph.D. students.

The department wishes great success to all of its graduates!

Outstanding graduate students

- **Summa cum laude, M.Sc.:** Izhak Tzachi Attia, Eli Gad Barbie, Nir Halay, Yonatan Yehezkeally, Roe Yacob Shaked
- **Cum laude, M.Sc.:** Gal Ehrlich, Nadav Dahan, Itshak Zahi Hershkovitch, Niv Vosko, Timur Vekslender, Leon Levitsky, Lior Simchon, Ran Sharon
- **Summa cum laude, B.Sc. (Electrical and Computer Engineering):** Yaniv Benny, Yair Yakoby, Shmaya Mushnik, Yanir Maymon, Hananel Faig, Gal Rattner, Ron Shoham
- **Cum laude, B.Sc. (Computer Engineering):** Alon Avioz, Bar Hemo, Asaf Yakoby
- **Cum laude, B.Sc. (Electrical and Computer Engineering):** Ziv Aharoni, Shahar Edelstein, Neve Algrici, Avital Aran, Lior Erets Kdosha, Shani Ben Baruch, Andrey Gurevich, Rotem Gal, Idan Gera, Sivan Grotas, Yair Dagan, Tal Dimry, Hananya Daniel, Itamar Jacoby, Yosef Myerson, Noam Mann, Omer Eden, Yevgeniy Portnov, Chen Firestien, Adam Kaminer, Nir Raviv, Michael Shulman

Student awards

- **Liyali Darwesh** (advisor: Prof. Shlomi Arnon) was awarded the Council for Higher Education scholarship for outstanding Ph.D. students
- **Cai Han** (advisor: Prof. Moshe Schwartz) was awarded the Council for Higher Education India China scholarship
- **Behera Saraswati** (advisor: Prof. Joseph Rosen) was awarded the Council for Higher Education India China scholarship
- **Shir Cohen** (advisor: Dr. Tirza Routtenberg) was awarded the Ministry of Science and Technology scholarship for M.Sc. students
- **Yonatan Yehezkeally** (advisor: Prof. Moshe Schwartz) was awarded the Paran scholarship for Ph.D. studies
- **Mani Ratnam** (advisor: Prof. Joseph Rosen) was awarded the Negev "Zin scholarship" for midway Ph.D. studies
- **Eyal Wohlgeomuth** (advisor: Prof. Joseph Rosen) was awarded the Negev "Zin scholarship" for midway Ph.D. studies
- **Nathaniel Hai** (advisor: Prof. Joseph Rosen) was awarded the High-Tech fellowship for excellent Ph.D. students
- **Nadav Harel** (advisor: Dr. Tirza Routtenberg) was awarded the High-Tech fellowship for excellent Ph.D. students
- **Moria Elkayam** (advisor: Prof. Alon Kuperman) was awarded the High-Tech fellowship for excellent Ph.D. students
- **Ori Aharon** (advisor: Prof. Joseph Tabrikian) was awarded the High-Tech fellowship for excellent Ph.D. students
- **Lital Dabush** (combined EE and physics B.Sc.) was awarded the Intel prize for excellent female undergraduate students
- **Hagai Michel** (undergraduate), **Noam Dayanim** (undergraduate) and **Idan Sassonker** (M.Sc. student, advised by Prof. Alon Kuperman) were awarded Apple prize for outstanding students
- **Yanir Maymon** (advisor: Prof. Boaz Rafaely) was awarded the Best Student Paper award at Latent Variable Analysis and Signal Separation conference that took place in England
- **Eyal Nitzan** (advisors: Prof. Joseph Tabrikian and Dr. Tirza Routtenberg) was the finalist of the "3 minutes thesis" EUSIPCO 2018 contest
- **Eyal Nitzan** (advisors: Prof. Joseph Tabrikian and Dr. Tirza Routtenberg) was selected as one of the three winners of the Best Student Paper award of SSP 2018

Faculty awards and grants

- **Prof. Shlomi Arnon** received the prestigious European Union research grant as part of the European Commission for Future and Emerging Technologies on using quantum and optical methods to detect breast cancer
- **Dr. Gil Shalev** (with Dr. Asaf Yakobobitz and Dr. Hadar Ben-Yoav, Mechanical Engineering) received the Institutional Equipment grant from the Israel Science Foundation (ISF) for his research on “Deep reactive-ion etching”
- **Prof Rafi Shikler** (with Prof. Lital Alfonta) was awarded a research grant by Joy Ventures for his research on “Dopamine self-fueled sweat biosensor”
- **Prof. Boaz Rafaely** (with Prof. Israel Nelkin, HUJI) was awarded a research grant by the Israeli Science Foundation as part of the Bikura program on “Understanding surround voice and advancing audio signal processing in a real acoustic environment”
- **Prof. Amiel Ishaaya** was awarded a research grant by the Israeli Science Foundation on “Controlling modulation in multi-core active fibers”
- **Dr. Ilan Shalish** was awarded a research grant by the Office of Naval Research on “Advanced methods for characterization of multilayer semi conduction structures”
- **Prof. Herzel Aharoni** was elected as an EPS fellow
- **Prof. Mor Perez** was awarded the Toronto Prize for outstanding researchers
- **Dr. Stanislav Deveryanko** was awarded a research grant by the Israeli Science Foundation on “Increasing the information capacity of optical networks by non-linear Fourier transform”
- **Dr. Yaniv Brick** was awarded a research grant by the Israeli Science Foundation on “Geometrically adaptive fast direct solvers for wave field integral equations”
- **Prof. Moshe Schwartz** was awarded a research grant by the Israel Science Foundation on “Topics in coding string duplication channels”
- **Dr. Yaniv Brick** was awarded a new faculty equipment grant by the Israeli Science Foundation
- **Prof. Moshe Schwartz** was awarded a research grant by the NSF-BSF Computation and Communication program on “Characterizing and noise reduction in live DNA data storage”
- **Dr. Kobi Cohen** was awarded the NSF-BSF Communication and Computing Foundation (CCF) research grant on: “Searching for the rare: an active inference and learning approach”
- **Dr. Yaniv Brick** was awarded a grant by the Administration for the Development of Weapons and Technology (MAFAT)
- **Prof. Reuven Shavit** was awarded a grant by the Administration for the Development of Weapons and Technology (MAFAT)
- **Prof. Nathan Kopeika** was awarded a grant by the Administration for the Development of Weapons and Technology (MAFAT)
- **Prof. Joseph Tabrikian** was awarded a grant by the Administration for the Development of Weapons and Technology (MAFAT)
- **Dr. Kobi Cohen** was awarded the IBM research grant on: “DNS analytics for cybersecurity”
- **Prof. Boaz Rafaely** was awarded a grant by Samsung in RUNWAY program #4 on “User unrecognized room impulse response estimation”
- **Prof. Mor Perez’s** paper received the Best Paper award of IEEE Transactions on Power Electronics
- **Dr. Shlomo Grinberg** was awarded an Hi-Per grant by the Principal Scientist (Magnet) on “High-performance SoC design
- **Dr. Shlomo Grinberg** was awarded a Gen-Pro grant by the Principal Scientist (Magnet) on “A generic RISC processor”
- **Dr. Yaniv Brick** received the Best Presentation award in a meeting of the Israeli Association for Computational Methods in Mechanics

Outstanding teachers

The departmental teaching committee is happy to award the following lecturers an outstanding teaching certificate.

Lecturers:

- **Prof. Moshe Schwartz** – for teaching “Introduction to Computers”
- **Dr. Kobi Cohen** – for teaching “Introduction to Electrical Engineering”
- **Dr. Amir Shlevinski** – for teaching “Waves and Distributed Systems”
- **Dr. Ilan Shalish** – for teaching “Introduction to Semiconductor Devices”
- **Prof. Timor Melamed** – for teaching “Electromagnetic Waves”
- **Dr. Yaron Orenstein** – for teaching “Introduction to Computers to Computer Engineering”

Teaching assistants:

- **Ms. Shiran Barnea** – for teaching in the course “Physics of Semiconductor Devices”

Department seminar

The department seminar runs throughout the academic year on various topics. Attendance is free and registration is not required. The talks are given by speakers from Israel and abroad. The full list of seminar talks appears in:

<http://in.bgu.ac.il/engn/ece/Pages/SeminarP.aspx> .

All students are invited to attend and learn about a variety of advanced studies from various research fields that take place in the Department of Electrical and Computer Engineering and other research universities in Israel and abroad.

Miscellaneous

- **Congratulations to Prof. Amiel Ishaaya** for participating in an initiative to solve the fire kites and balloons at the Gaza border, and a successful on field demonstration
- **A book edited by Prof. Eugene Kamenskii** titled “Fano Resonances in Optics and Microwaves” was published by Springer publishing

Open research positions

All positions include stipends. For details, contact the principal investigator

- The Orenstein Lab is looking for grad students to conduct Bioinformatics research: solving computational problems that arise from biological data. Contact: varonroe@bgu.ac.il
 - Available positions for M.Sc. and Ph.D. student on theoretical research in coding for storage systems. Contact: schwartz@ee.bgu.ac.il, www.ee.bgu.ac.il/~schwartz
 - Available positions for M.Sc. and Ph.D. students on applicative research in computer architecture and performance improvement of multi-processor systems and development of neural-network designated accelerators. Contact: shlomog@ee.bgu.ac.il
 - The computational electromagnetics group (Dr. Yaniv Brick) is looking for graduate students and post-docs for research on fast algorithms for the solution of wave problems. Research positions available in computational electromagnetics and acoustics for various applications, with an emphasis on development of advanced algorithms for the direct solution of integral equations. Contact: ybrick@bgu.ac.il
 - Available positions for M.Sc. and Ph.D. students on physical layer research for 5G communication and smart electric grids. Contact: daborona@bgu.ac.il
 - Research positions available for joint projects with MAFAT on spectral image analysis led by Prof. Yisroel Rotman and Prof. Dan Bloomberg. Contact: srotman@bgu.ac.il
 - Available positions for graduate students on detecting and estimating parameters, learning and cognitive radar led by Prof. Joseph Tabrikian. Contact: joseph@bgu.ac.il
 - Available positions for graduate students in PEMIC center on all electronic fields and in particular on energy consumption and chip design. Contact: morp@bgu.ac.il
 - Available positions for M.Sc. and Ph.D students on Bioelectronics and light capturing arrays. Contact: gshalev@bgu.ac.il
- Available positions on machine learning and information theory. Contact: haimp@bgu.ac.il