



## March 2022 issue

We congratulate our undergraduate students, graduate students, and faculty for the opening of the 2<sup>nd</sup> semester of 2022!

The school's newsletter is distributed at the beginning of each semester to advertise teaching and research activities in the school among the students and faculty.

### In this issue:

- Student awards
- Faculty awards and grants
- School seminar
- School Events and Miscellanies
- Open research positions

## Student awards

- Recipients of Apple excellence award: **Sofia Aizenshtein, Noam Barel, Dan Ben Admi, Yuval Braun, Gal Cohen, Itamar Dayani, Liad Eliyahu, Alon Feldman, Or Gross, Alon Helvits, Sheli Hendel, Efi Korenfeld, Esther Margolis, Rotem Moshkovitz, Dor Patel, Yael Schor, Erel Shachor, Eden Ship, Ben Shlomo, Etan Spivak**
- **Chen Firestein** (advisor: Dr. Amir Shlivinski) was awarded the Negev scholarship for excellent PhD students
- **Nethaniel Hai** (advisor: Prof. Joseph Rosen) was awarded the Rector Prize from Kreitman School
- **Lital Dabush** (advisor: Prof. Tirza Routtenberg) was awarded the Ministry of Infrastructure, Energy, and Water Resources PhD fellowship
- **Lital Dabush** (advisor: Prof. Tirza Routtenberg) was awarded the Ariane de Rothschild Women Doctoral Program fellowship
- **Ankit Chauhan** (advisor: Dr. Gil Shalev) was awarded the Negev scholarship for excellent PhD students
- **Ankit Chauhan** (advisor: Dr. Gil Shalev) was awarded a certificate of excellence from Kreitman School
- **Bar Halivni** (advisor: Prof. Mor Peretz) was awarded a travel fellowship from Applied Power Electronics Conference (APEC) 2022
- **Tomer Gafni** (advisor: Dr. Kobi Cohen) was awarded the Negev scholarship for excellent PhD students
- **Itay Buchnik** (advisors: Prof. Tirza Routtenberg and Dr. Nir Shlezinger) was awarded a "Access and Usage of Cloud Resources" Grant from the Israel Data Science Initiative (IDSI) for data science related research
- **Itay Buchnik** (advisors: Prof. Tirza Routtenberg and Dr. Nir Shlezinger) was awarded an "Israel 2040" JNF Scholarship for excellent BSc engineering students from the Negev and Galilee
- **Ofir Yaish** (advisor: Dr. Yaron Orenstein) was awarded a "Access and Usage of Cloud Resources" Grant from the Israel Data Science Initiative (IDSI) for data science related research
- **Shauli Shmilovich** (advisors: Profs. Adrian Stern and Stanley Rotman) won the Dean's prize for excellence during his MSc studies
- **Rajnish Kumar** (advisor: Prof. Shlomi Arnon) was awarded the Negev scholarship for excellent PhD students
- **Ganesh Muthukum Balasubramaniam** (Prof. Shlomi Arnon) was awarded the Negev scholarship for excellent PhD students
- **Yair Sorek** (advisor: Dr. Koby Todros) was awarded a certificate of excellence from Kreitman School
- **Tom Urkin** (advisor: Prof. Mor Peretz) was awarded a certificate of excellence from Kreitman School

## Faculty awards and grants

- **Prof. Tirza Routtenberg** was awarded a grant from Israel Ministry of National Infrastructure, Energy, and Water Resources on “Physics-informed Learning and Graphical Methods for Data Processing in Power Grids”
- **Dr. Kobi Cohen** was awarded a grant from the Israeli Ministry of Defense (MAFAT) on “Distributed AI Learning for Communication Networks”
- **Prof. Adrian Stern** was awarded (with co-PIs) a grant under EU Attract program for developing “Hyperspectral Imaging for Precision Medicine in cancer Diagnostics”
- **Prof. Boaz Refaely** was awarded a grant from the Israeli Ministry of Defense (MAFAT) on “Analysis of Wave Expansion using Microphone Arrays”
- **Prof. Boaz Refaely** was awarded a research grant from Reality Labs @ Meta on “Head-related Transfer Function Estimation using Deep Learning”
- **Prof. Michael Segal** together with Prof. Michael Elkin from Computer Science department won a grant funded by the Innovation Authority within the program of “Magnet Stars” partnered with Elbit Systems titled: “LEO Constellation Virtual Swarm Multicast Routing Optimization”
- **Dr. Yaron Orenstein** was awarded a Kamin Bio-convergence grant from Israel Innovation Authority on “UNILIB: Universal regulatory library for gene expression”
- **Dr. Igal Bilik** in collaboration with Prof. Yossi Yovel (TAU) and Dr. Nir Sapir (UH) was awarded a grant from the Chief Scientist Ministry of Energy: “Multi-Sensor approach for monitoring influence of green energy systems on the bio-diversity”
- **Dr. Igal Bilik** was awarded a grant from the Israeli Ministry of Defense (MAFAT) on “Cognitive Antenna Selection”

## School seminar

The school seminar takes place 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. For the full list of seminar talks:

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

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

## School Events and Miscellanies

- **Prof. Michael Segal** was appointed by the Israeli Council for Higher Education as the member of the Central Committee for Information and Communication Technology Standards of Standards Institute of Israel
- The US-based Stanford University has recently released a list that represents the top 2% of the most-cited scientists in various disciplines. The exhaustive list has 190,063 individuals across the globe out of 7.6 million. This large database prepared by experts at Stanford University, USA by analyzing the quality of research cited by other researchers in year 2021. **Prof. Ibrahim Abdulhalim** is ranked at the 0.4% in the list

## Open research positions

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

- Available positions for MSc and PhD students on theoretical research in coding for storage systems. **Prof. Moshe Schwartz**. Contact: [schwartz@ee.bgu.ac.il](mailto:schwartz@ee.bgu.ac.il), [www.ee.bgu.ac.il/~schwartz](http://www.ee.bgu.ac.il/~schwartz)
- Available positions on fascinating research projects in machine learning, statistical inference, and artificial intelligence at **Dr. Kobi Cohen's** Lab. For details: [yakovsec@bgu.ac.il](mailto:yakovsec@bgu.ac.il)
- PhD and MSc students interested in a collaborative research by Ben-Gurion University and Refael, which enables a student position in Refael Beer-Sheva with a high chance to lead to a full-time position, are welcome to contact **Prof. Joseph Rosen** [rosenj@bgu.ac.il](mailto:rosenj@bgu.ac.il). The research is on adaptive optics, sensing wave front, quantitative phase imaging, and imaging through a dispersion medium
- Research positions for graduate students in the fields of Deep Learning and Compressive Sensing for optical implementations, optical encryption, or defending against adversarial attacks on Deep Neural Networks. Contact: **Prof. Adrian Stern** [stern@bgu.ac.il](mailto:stern@bgu.ac.il)
- Research positions for MSc and PhD students are available in the Computational Biology Lab led by **Dr. Yaron Orenstein** on deep neural networks application on genomics data and designing combinatorial DNA libraries. Contact: [yaronore@bgu.ac.il](mailto:yaronore@bgu.ac.il)
- Interested students in “LEO Constellation Virtual Swarm Multicast Routing Optimization” are welcome to contact **Prof. Michael Segal**, [segal@bgu.ac.il](mailto:segal@bgu.ac.il).
- The Optical Meta-Engineering Lab – **Dr. Nir Shitrit's** research group – is seeking for excellent and enthusiastic MSc and PhD students who wish to gain scientific knowledge in both nano-optics and meta-engineering for experimental research on on-demand functionality of nano-engineered materials. Research positions are available in the fields of (i) light-matter interaction with exquisite control over electromagnetic properties in the linear, nonlinear, and quantum optical regimes, and (ii) innovating optoelectronic devices via custom-designed structures. For details, contact [nshitrit@bgu.ac.il](mailto:nshitrit@bgu.ac.il)
- **Dr. Nir Shitrit** and **Dr. Nir Shlezinger** offer a joint supervision for excellent and enthusiastic MSc and PhD students who wish to gain scientific knowledge in both metasurfaces (nano-engineered optical structures with an on-demand functionality) and machine learning for experimental research on deep-learned photonic metasurfaces. For details, contact Dr. Nir Shitrit ([nshitrit@bgu.ac.il](mailto:nshitrit@bgu.ac.il)) and Dr. Nir Shlezinger ([nirshl@post.bgu.ac.il](mailto:nirshl@post.bgu.ac.il))
- Multiple funded positions for MSc and PhD students are available in the areas of: Deep learning Radar Processing, Sensing for Autonomous Vehicles, Signal Processing for Radar and Radar-vision fusion, and Sensor Array Signal Processing. Contact: **Dr. Igal Bilik** [bilik@bgu.ac.il](mailto:bilik@bgu.ac.il)
- Available research positions for MSc and PhD students in detection and estimation theory and machine learning with applications to radar signal processing and cyber security. Contact: **Prof. Joseph Tabrikian** [joseph@bgu.ac.il](mailto:joseph@bgu.ac.il)