

NEWSLETTER

TEL AVIV UNIVERSITY ENGINEERING INDUSTRY LIAISON OFFICE

הפקולטה להנדסה
מרחיבים את
גבולות האפשר



JANUARY-FEBRUARY 2026

At Tel Aviv University's Faculty of Engineering, cutting-edge research meets real-world innovation. Explore breakthrough technologies, strategic industry partnerships, and exclusive collaboration opportunities.

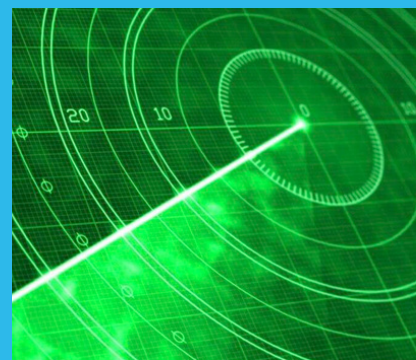
Join us in shaping the next generation of engineers.
Stay connected, lead innovation, and build the future with us!

GRAPHENE COMPOSITES ACHIEVE UP TO 20 DB RADAR REFLECTION REDUCTION

Adisyn has completed a proof-of-concept program demonstrating that graphene-enhanced composite materials can reduce radar reflection by up to 20 dB in laboratory testing.

The program was led by **Professor Pavel Ginzburg**, Full Professor of Electrical Engineering at Tel Aviv University, specializing in radar physics and electromagnetics.

[Click here to read more](#)

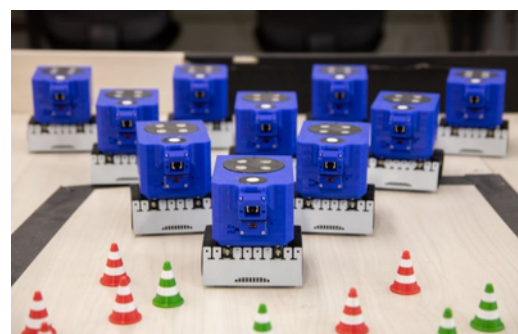


ADVANCING AUTONOMOUS SYSTEMS EDUCATION AT TEL AVIV UNIVERSITY!

The School of Electrical & Computer Engineering at The Faculty of Engineering is proud to introduce 10 newly built ZumoPi V02 autonomous platforms, developed in-house as the core infrastructure for our 4th-year Advanced Autonomous Systems Lab. Each vehicle is powered by a Raspberry Pi 5, with planned integration of Edge AI acceleration using the **Hailo** AI module, enabling students to experiment with real-time deep learning directly on embedded hardware.

This upgrade was generously sponsored by **Mobileye**, strengthening the bridge between academic education and cutting-edge autonomous industry technologies.

In the spirit of open innovation, the entire project is available as open source: [click here](#)



QUANTUM ROTATION SENSOR ACHIEVES 512* RESOLUTION BOOST – COVER FEATURE IN LASERS & PHOTONICS REVIEWS

We are proud to announce that research from **Professor Ady Arie's group** has been selected as the cover of the February issue of Lasers & Photonics Reviews.

The cover, designed by Guy Tshuva, reflects the work on a quantum rotation sensor achieving a 512-fold enhancement in resolution through the quantum properties of light and advanced spatial beam shaping. Congratulations to the team for this outstanding achievement and for representing the Faculty of Engineering with excellence.



FROM STARSHIP TO A PERMANENT LUNAR HABITAT

Dr. Shay Monat, a graduate of the School of Mechanical Engineering at the Faculty of Engineering, is leading an ambitious engineering vision: transforming Starship by **SpaceX** into a permanent crewed habitat on the Moon.

The idea gained global attention when Elon Musk shared the concept and wrote: "This will be so great!"

It is a great source of pride to see one of our graduates applying creative engineering thinking on an interplanetary scale.

[Click here to read more](#)



הישראלי שרוצה לבנות בית על הירח, והתגובה של אילון מאסק

ENGINEERING INNOVATION: FROM WATER PROTECTION TO AUTONOMOUS AI

We are happy to spotlight a new podcast with **Prof. Hadas Mamane** from the School of Mechanical Engineering, Tel Aviv University, a world expert on Water technologies: Water is Life - How can we better protect water?

Through her work in environmental and water engineering, Prof. Mamane leads international collaborations and capacity-building initiatives focused on sustainable water treatment, public health, and clean-water access. Her outreach activities span Israel, India, Europe, the Middle East, and Africa, bridging cutting-edge research with real-world solutions aligned with the UN Sustainable Development Goals.

[Watch the Full Video](#)



PIONEERING HANDS-ON QUANTUM ENGINEERING IN ISRAEL

Congratulations to the first graduates of Israel's first hands-on quantum engineering lab course!

Tel Aviv University is proud to lead the education of the next generation of engineers for the quantum revolution, in partnership with Quantum Machines and the Israel Quantum Computing Center (IQCC).

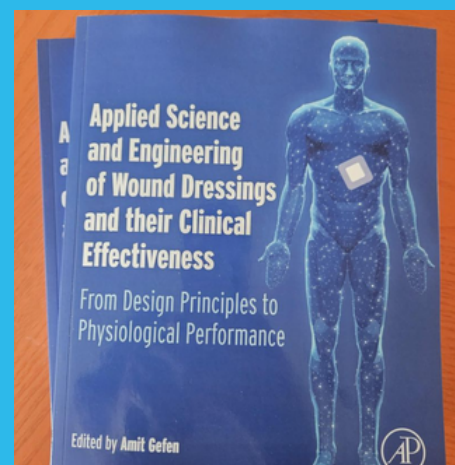
And we're just getting started!
In the photograph on the right, we see Gilad presenting the quantum lab equipment at the IQCC to the next generation of electrical engineering students.



ADVANCING BIOMECHANICS WITH REAL-WORLD IMPACT

The Faculty of Engineering is proud of Prof. Amit Gefen, Professor of Biomedical Engineering, a world expert in biomechanics and mechanobiology. His pioneering work continues to push the boundaries of science with real-world impact.

[Click here to read more](#)



SHADOW AI AND THE TRUST CHALLENGE

A recent feature in **CTech** highlights the growing tension around "Shadow AI" – as employees adopt tools like **ChatGPT**, **Claude**, and **Gemini** to boost productivity, often beyond organizational oversight. **Prof. Eran Toch of Tel Aviv University** emphasizes that while companies are turning to Private AI solutions from firms such as AGAT Software and MIND, long-term success will depend not only on control layers and monitoring – but on trust, transparency, and thoughtful governance in the AI workplace.

When you raise walls around data, then that actually gives employees an incentive to go around those walls.

[Click here to read more](#)

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"WHEN YOU RAISE WALLS AROUND DATA, THEN THAT ACTUALLY GIVES EMPLOYEES AN INCENTIVE TO GO AROUND THOSE WALLS," SAYS PROFESSOR ERAN TOCH, AN EXPERT ON PRIVACY AND HUMAN-AI INTERACTION AT TEL AVIV UNIVERSITY.



MECHANICAL LEGO: STEPWISE STRUCTURES THAT COMPUTE

A new study, led by **Prof. Yair Shokef** from the School of Mechanical Engineering, reveals a surprising mechanism by which simple mechanical structures behave like LEGO blocks — capable of performing mathematical operations, responding stepwise to applied pressure, and even serving as a foundation for energy-efficient mechanical computing.



CELEBRATING 20 YEARS OF INNOVATIVE ENVIRONMENTAL SENSING AT CELLENMON

The Faculty of Engineering recently marked **20 years of research excellence at the CellEnMon** – Cellular Environmental Monitoring Lab, pioneering environmental sensing and information extraction through communication channels, using advanced signal processing and AI for opportunistic sensing. This milestone celebrates two decades of groundbreaking research, long-term collaborations, and partnerships with academia, industry, and organizations worldwide.



[Click here to read more](#)

FROM SILICON INNOVATION TO SHAPING THE NEXT GENERATION

We are grateful and proud. 🙏

Giving back by teaching the next generation of engineers is a powerful way to close the loop on a long, impactful career – and **Dr. Ofer Shacham** embodies exactly that.

From leading silicon innovation at global technology leaders like **Google** and **Meta** to now teaching **VLSI** at Tel Aviv University, where his own journey began, Ofer continues to invest in the future of hardware and computers.

His vision for energy-efficient AI infrastructure – and his work building solutions that challenge the status quo in the chip industry – was recently highlighted in this **CTech interview: [click here.](#)**

It is an honour to witness and support his contribution back to students and to the broader tech ecosystem: teaching, mentoring, and inspiring what comes next.

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DR. OFER
SHACHAM

GIVING BACK
BY TEACHING



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Faculty of Engineeri
Tel Aviv University



[Our Website](#)



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PROF. PAVEL GINZBURG AWARDED PRESTIGIOUS ERC PROOF OF CONCEPT GRANT

We are thrilled to congratulate **Prof. Pavel Ginzburg of the Tel Aviv University Faculty of Engineering** on receiving a prestigious European Research Council Proof of Concept (ERC PoC) award! 🎉

This grant supports visionary researchers in translating groundbreaking scientific ideas into real-world applications, highlighting Prof. Ginzburg's impact in engineering and applied physics, and TAU's commitment to bridging lab discoveries with practical solutions.



DATA SCIENCE PROJECT DAY: STUDENTS DRIVING INNOVATION ACROSS DISCIPLINES

At Tel Aviv University's Faculty of Engineering, students showcased innovative data science projects during Project Day, tackling real-world challenges in healthcare, law, education, and ecology. Highlights include collaborations with Ben-Gurion University, Segol Brain Research Center, Ichilov Hospital, Shalvata Mental Health Center, and the Tel Aviv University Natural History Museum, showcasing projects from motor rehabilitation and PTSD treatment analysis to animal species identification and legal reasoning with AI. Congratulations to all students for their creativity, dedication, and impactful work!



[Click here to read more](#)

EMPOWERING WOMEN IN ENGINEERING: NOVA LTD. SCHOLARSHIPS

The Faculty of Engineering at Tel Aviv University, in partnership with **Nova Ltd.**, recently hosted an inspiring ceremony honoring outstanding female PhD candidates. The scholarships, awarded to Inbar Hurvitz and Amy Altschuler, recognize academic excellence, innovative research, and the connection between science and industry.

The event featured talks by the recipients, moderated by Lilly Weizman from Industry Relations, with remarks from Prof. Slava Krylov, Prof. Ron Lifshitz, Adv. Adi Olmert, Sharon Dayan, and Dr. W. Shay.

The partnership highlights the power of collaboration in fostering leadership and innovation among women in engineering. Congratulations to Inbar and Amy on their inspiring achievements!

[Click here to read more](#)



BRIDGING THEORY AND PRACTICE IN ENGINEERING EDUCATION

As the first semester wraps up, it is clear that engineering education thrives when students engage in hands-on, real-world projects. These experiences connect theory to practice, build practical intuition, and prepare students to tackle real engineering challenges — including constraints, trade-offs, and the complexities of real-world problem-solving.



INNOVATING REHABILITATION: STUDENTS DESIGN LIFE-CHANGING TOOLS

Students in the Biomedical Engineering design course with Prof. Ran Gilad-Bachrach and Reut Rehabilitation Hospital developed custom gripping tools to support fine motor rehabilitation for stroke survivors and patients. The project was guided by the team led by Danny Berko, alongside course staff Amir Gorodetsky, Yair Kotin, and Yoav Rotfeld. Leveraging computer-aided design, simulations, and 3D printing, the students transformed theoretical learning into practical, real-world solutions, showcasing how hands-on engineering education empowers the next generation to create innovative, impactful technologies.



INSIDE THE ELECTRICAL & COMPUTER ENGINEERING PROJECT LAB ⚡

Take a peek inside the Tel Aviv University School of Electrical & Computer Engineering Project Lab – where ideas come to life and turn into real-world solutions. Hear from students about exciting projects that combine creativity, engineering thinking, and hands-on application of advanced technologies.

[Watch the Full Video](#)



רובוט מאייר

MECHATRONICS IN ACTION: AUTONOMOUS SUMO ROBOTS 🤖

The Tel Aviv University School of Mechanical Engineering wrapped up its Mechatronics Lab course with a high-energy Sumo Robot tournament! Students spent the semester designing, 3D printing, and programming their own autonomous robots, showcasing creativity, clever algorithms, and hands-on engineering skills. Special thanks to Arkadi Rafalovich, Ben Levy, and Volodymyr Ridchenko for their guidance and technical support in making this exciting, competitive learning experience possible. ⚡



[Watch the Full Video](#)

STARKWARE VISITS TAU: PROVING THE FUTURE 🚀

StarkWare visited Tel Aviv University's School of Electrical & Computer Engineering, engaging graduate students in an inspiring discussion on "Proving the Future." Many thanks to the StarkWare team for sharing their insights and sparking new ideas!



CELEBRATING EXCELLENCE: 2025 APPLE SCHOLARSHIPS 🍏⚡🎓

Apple partnered with Tel Aviv University to honor outstanding Electrical and Computer Engineering students at the **2025 Apple Scholarships Award Ceremony**. The inspiring event celebrated academic excellence and innovation, with Prof. Slava Krylov, Vice Dean for Research and Industry Relations, pictured alongside the scholarship recipients. Congratulations to all – the future looks bright!

[Click here to read more](#)



NVIDIA INSPIRES THE NEXT GENERATION OF WOMEN ENGINEERS

On January 4, **NVIDIA** hosted an inspiring panel at Tel Aviv University for female graduate students. Four leading NVIDIA engineers shared their personal journeys, non-linear career paths, and the intersection of academic research with cutting-edge industry work. Over 40 students attended, asked questions, and gained valuable insights into high-tech innovation. The panel was moderated by Hadas Hartal, leader of NVIDIA's DEI initiatives.

[Click here to read more](#)

