

# Summer Program in Theoretical Tribology For Outstanding Postgraduate and Senior Undergraduate Students

Full Scholarship for outstanding candidates from China!  
July 31 – August 30, 2013



The summer program allows students to create a rigorous academic experience that combines 1 or 2 advanced courses with an exciting social and cultural program at Israel's leading department of mechanical engineering. The program centers around a core course carrying 3 academic credits and is taught by Technion esteemed ME faculty:

## Theoretical Tribology

students will explore the science and technology of interacting surfaces in relative motion as well as friction, wear and lubrication. Students will develop an understanding of the solid mechanics aspects of tribology, mainly in the area of contact mechanics. They will learn theoretical modeling and get physical insight of various tribological phenomena occurring between contacting real surfaces.

**Taught by Prof. Izhak Etsion**

Students may also take an academic course focused on Israeli culture and history, including a brief introduction to the Hebrew language. Technion will also offer courses in different fields of science and engineering including: **Nonnegative Matrices – Theory and Applications** (Mathematics), **Distributed Space Systems** (Aerospace Engineering), **Principles of Guidance and Homing** (Aerospace Engineering), **Image Processing and Analysis** (Electrical Engineering) & **Introduction to Machine Learning** (Electrical Engineering).

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**For further information please contact:**

Tel. +972-4-8293325, Email: [yaely@int.technion.ac.il](mailto:yaely@int.technion.ac.il), [www.ise.technion.ac.il](http://www.ise.technion.ac.il)



### Social and Cultural Activities

Students participate in industry visits and trips to Israel's tourist attractions as well as leading companies, start-ups and investment companies to explore Israel's unique entrepreneurial economy. On campus, students get to meet Technion faculty, visit laboratories, and engage with lunchtime speakers providing in-depth exposure to Israeli and Middle Eastern culture and history. On-campus social activities are led by Technion International's experienced student guides.

### Housing & Facilities

Students are housed in campus dorms. Each room in a 3-bedroom apartment accommodates 2 students, and each apartment offers a shared kitchen and bathroom. Students have access to Technion's excellent facilities that include 3 swimming pools (one Olympic-sized), gym, tennis and squash courts, movie theatre, over 20 cafeterias, a pub, and laboratories as required.

### Admissions & Cost

Excellent undergraduate and graduate students (BSc, B-TECH, MSc, PhD) are invited to apply: Application forms can be found at:  
[www.ise.technion.ac.il/summerschool\\_china\\_application](http://www.ise.technion.ac.il/summerschool_china_application)

Submit your application form together with your university transcripts, CV, and one letter of recommendation. The minimum required grade point average is 80. Acceptance to each academic course is dependent on approval of pre-requisites by Technion faculty.

Under a unique Israeli Government Sponsorship, excellent students from China will receive a scholarship covering full tuition costs for the program, including housing in Technion's international village dormitories, daily lunch at a Technion cafeteria (5 days a week) and a monthly allowance of \$250. For additional information:  
[yaely@int.technion.ac.il](mailto:yaely@int.technion.ac.il)



### Technion – Israel Institute of Technology

Technion — Israel Institute of Technology is Israel's premier center of science and technology education and applied research. Founded in 1912, Technion is Israel's oldest university and is home to a superb faculty including three Nobel Laureates, 13,000 students, 18 faculties and more than 40 research institutes. Ranked among the world's top 50 technological universities by Shanghai Jiao Tong University's prestigious Academic Ranking of World Universities (ARWU), Technion is home to one of the globe's leading faculties of mechanical engineering.

### Faculty of Mechanical Engineering

The Faculty of Mechanical Engineering at the Technion was established in 1935. It is the major source of high-level mechanical engineers for Israeli industry and R&D. Graduates of the Faculty of Mechanical Engineering fill senior positions in Israeli industry, and particularly in the high-tech and defense industries. Currently, around 1200 undergraduate and graduate students are pursuing bachelor's, master's and doctoral degrees in the Faculty.

The research conducted in the Faculty of Mechanical Engineering at the Technion, takes place within four research centers, incorporating some 40 cutting edge research laboratories: The Research Center for Energy Engineering and Environmental Preservation, The J. W. Ullmann Center for Manufacturing Systems and Robotics, The Materials Mechanics Center, and The Biomechanics Center. The Faculty offers a wide range of courses and research projects in the following areas: Biomechanics, CAD, Control, Design and Production, Design in Marine Environment, Dynamical Systems, Energy, Flow-Structure Interaction, Fluid Mechanics and Transport Phenomena, Mechanics of Materials, Mechatronics, Micro-systems, Nano-Mechanics, Optical Engineering, Reliability, Robotics, and Surface Engineering.

