



## **2020-2021 RAMON SPACE OLYMPIADS**

IASA operates two **National Space Olympiads** each year: For the past 7 years, elementary level students (grades 4-6), have experienced the exciting, unique challenges our competitions offer. Four years ago, we began a Space Olympiad for junior high school students (grades 7-9). Both finals were held this past June, 2021.

These Olympiads are sponsored and financed by the **Israel Space Agency in the Ministry of Science and Technology in conjunction with the Ministry of Education**. This year, approximately 4,000 pupils from 200 schools throughout Israel participated in the first stages of each competition. The main goal of the competitions is to arouse curiosity in and familiarise the youngsters with subjects in science and technology by exposing the students to the exciting subject of space.

Throughout the year, students participated in five stages of each competition through on-line quizzes. They had to answer complex questions, participate in activities within the community, work together in groups, carry out experiments in the classroom and even plan an assignment and build a model with the help of the computer program (CAD).

**The semi-finals for the junior high Olympiad challenged students plan a satellite mission using computer programming, create a virtual model of a satellite that could monitor an environmental, social or military event.** The students were guided by experts from various organizations, companies and institutions such as: The Israel Aerospace Industries (IAI), Elop, Accubit, Imagesat, Intel, Raphael, Hebrew University and Tel Aviv University. These experts provided professional support to our students.

**The semi-finals for elementary students challenged them to design a Payload for the lunar lander in the Genesis 2 Project.** As part of the assignment, they had to define the social, technological and scientific goals of the lunar mission, characterize the Payload with which the lunar mission would be undertaken, and prepare a 3-D digital model detailing the various components of the Payload. Fifteen volunteers from The Israel Space Foundation accompanied and guided these talented youngsters.

The Space Olympiads finals included 11 schools from around the country. They persevered and succeeded despite the challenges COVID-19 presented. During the final stage of the competitions, students competed in groups and were challenged to build a model within a limited time period, using the app – TINKERCAD. They presented their models before a committee of judges and in front of the other groups of contestants. This was followed by a lecture from Dr. Eliad Peretz about lasers, their applications and contributions to research and space missions. (Dr. Peretz is a leading researcher in NASA Goddard and has received many prizes. He is also a candidate for NASA's prestigious astronaut program.)

The winners in the junior high Olympiads were from The Yashai Center in Kfar Saba, while the winners in the elementary Olympiads came from Beit Hinuch Shimon Peres in Rosh Ha'ayin. In addition to receiving the prize, both winning teams were invited to meet with the Minister of Science, Hilli Tropper and the Head of the Israeli Space Agency, Mr. Avi Blasberger.

*June, 2021*