

היחידה לנוער שוחר מדע וטכנולוגיה  
ע"ש משפחת הרי ולו שטרן

The Harry and Lou Stern Family  
Science and Technology Youth Center



הטכניון - מכון טכנולוגי לישראל  
המרכז לחינוך קדם-אקדמי



Technion - Israel Institute of Technology  
The Center for Pre-University Education

**“SCIENTIFIC OFANIM”**  
**PROGRAM REPORT 2014**

**MARCH 2015**

# INTRODUCTION

Ofanim Association was established in 2004 in order to promote the empowerment and advancement of children living in Israel's geographic and social periphery.

Ofanim runs educational enrichment programs for hundreds of children living in outlying localities and welfare afterschool programs in Israel's northern and southern regions.

Ofanim has an original and effective means of reaching the children in remote areas - buses that have been retrofitted into mobile study laboratories.

Through its mobile laboratories, Ofanim exposes the children to new worlds of content that have an impact on their futures.

This report relates specifically to the Ofanim Program provided by The Technion through its Science and Technology Youth Activity Unit of the Center for Pre-University Education.

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The Technion's Scientific Ofanim program took place, as in previous years, in - two locations - in laboratories located at Technion's Youth Unit and in the "Ofanim Bus" mobile laboratory, which was designed by the Youth Unit. The Youth Unit also adapted the curriculum to suit the unique environment of the bus.

In 2014, as in previous years there were 97 participants from the 5th and 6th grades (11 and 12 years of age) who came from schools located in two different cities; Tiberias and Akko.

## SEMESTERS

The first semester began in October 2013. Every Sunday, 52 participants from *Tahkemoni* and *Reut* Schools (located in Tiberias) commuted to the Technion. They were accompanied by a chaperone whose task was to supervise the students during their commute and their activities. Students were divided into 3 groups and studied in the Youth Unit Center laboratories. An additional 45 participants from *Weizman - Rambam* and *Al Manara* Schools (located in Akko) studied in the Ofanim Bus.

The second semester began in January 2014 when all participants switched locations: the students from Akko began commuting to the Technion and those from Tiberias studied in the Ofanim Bus.

Altogether thirteen meetings in each seminar for all students took place in the Youth Center laboratories. These meetings provided an introduction to the world of science and engineering. Each meeting was two academic hours (100 minutes) and was based on a “fun” experimental activity.



Students were divided into small groups and were supervised by our skilled instruction team, made up of selected Technion students from different majors. Subjects and concepts studied during these activities were taken from the students' everyday life and enriched them beyond their schools' pedagogical program.

Thirteen meetings in each seminar for all students also took place in the Ofanim Bus. These meetings provided an introduction to the world of robotics. Students were again supervised by our skilled instruction team made up of selective Technion students from different majors who not only instructed the students but also maintained the equipment, accessorized the bus correctly, and planned the curriculum of the course.

## PARENTAL MEETINGS

At the end of each semester, a meeting was held with the students' parents.



This meeting included a short introduction about the Technion and presented the Technion Youth Unit activities. After the meeting, the parents were invited to a lecture that presented chemistry demonstrations. At the end of the lecture the parents joined the students in the laboratories to conduct an experiment using all the knowledge the students had accumulated up to that point.



## ASSESSMENT

There is very little absenteeism and the students come for the whole year with a journey of one hour each way. This is an indicator in itself of the success of the program. Furthermore the client, the Ofanim Association requests an extension to the program on an annual basis (see below).

At the end of all activities each student is asked to complete an assessment. The assessment contains twenty questions to which the students are asked to respond through allocating a rating of between 1 to 5; five indicating the most satisfaction. An analysis of the questionnaires returned indicated an average rating of 4.20. The comments received also rated the activities as interesting and enjoyable and indicate a high level of satisfaction.



## **THE FUTURE**

Due to the success of the program, the Ofanim Association has again requested that the Technion Youth Unit expand its activity.

The Technion Youth Unit appreciates its success in the program and would like to expand its activity next term.

We express appreciation to Mr. Mark Gelfand for his renewed support of the Technion's Ofanim Program.