

**STUDENT OF THE SECOND COURSE MAJORING «STANDARDIZATION AND CERTIFICATION» VICTORIA HISAMUTDINOV BECAME THE WINNER OF THE COMPETITION «SCIENCE SLAM - KAZAKHSTAN 2017»**

On the 10<sup>th</sup> of November , 2017 in Almaty hosted the competition Science Slam - Kazakhstan. This duel of young scientists was initiated by the Foundation of the First President of the Republic of Kazakhstan - Elbasy. The event was held for the third time in the walls of the foundation. Champions of a scientific duel are determined not only by points of a competent jury, which includes scientists, university professors and business representatives, but also by the length of applause. Seven finalists of the show presented their projects to the public.

The authors of the project "Intellectual system of remote management of solid waste containers" - Khisamutdinov Rafael and Viktoria Khisamutdinova - study at ENU. Rafael is a 4th year student of the Faculty of Physics and Technology with a degree in Radio Engineering, Electronics and Telecommunications, Victoria is a second-year student of the specialization "Standardization and Certification" of the Transport and Energy Department.



The guys thought about creating an innovative invention to solve one of the acute environmental problems of any metropolis - the sorting and removal of solid domestic waste and their subsequent processing.

According to the developers, the container device has 3 levels for each kind of waste - paper, organic waste and plastic. It is equipped with software for electronic garbage identification system, sensors that monitor the fullness of the container and are triggered by a person, in which the hatch opens and closes on its own.

In case of unscrupulous sorting of garbage, a special mechanism applies an individual barcode to the garbage bag with information about unidentified garbage for convenient sorting into the plant. Later on, with the help of cameras, a person is identified which is fined.



The device has a connection with the garbage processing plant and as the compartments fill the system sends a signal about the need to remove a garbage, and also transfers information about the operation of the container.

The design for such an underground container is not complex: the tank is 4 meters deep, inside a large durable bag.

Near the container there will be no unpleasant odors, but inside there will be no fire. The container is equipped with a fire protection system. Containers require large investments. But according to the calculations of the authors of the project, everything will pay off in a year.

Thanks to innovative development, it is possible to increase the level of comfort and quality of life by reducing the pollution of areas of the city with SHW containers, creating additional jobs in new divisions for servicing the environmental business, reducing the traffic growth of vehicles engaged in export of solid waste, improving transport logistics of vehicles for garbage removal and reducing budget expenses due to the modernization of the management system for SDW containers.

It is worth noting that this is not the first victory of Eurasians in this contest. Last year, ENU graduate student Asel Pazyzbekova also took first place for the project called "Transformable working model for the processes of conceptual design."





ФОНД ПЕРВОГО ПРЕЗИДЕНТА  
РЕСПУБЛИКИ КАЗАХСТАН - ЕЛБАСЫ

# ДИПЛОМ

I место  
Присуждается

**Хисамутдинову Рафаэлю  
Хисамутдиновой Виктории**

**за победу в конкурсе публичной презентации  
научных проектов  
«Science Slam — Kazakhstan 2017»**

Председатель  
Совета молодых ученых  
при Фонде Первого Президента



М.Томанов

Алматы - 2017

Congratulations on our inventors and wish them continued success!