## Clubs

## Extracurricular activities

In recognition of the paramount importance of nurturing gifted students and fostering the cultivation of their creative capacities, the department has established a distinguished student club known as **"EVRIKA"**. Within this esteemed club, over 50 exceptionally talented students are actively engaged in collaborative scientific research endeavors, working closely alongside esteemed professors and dedicated educators.

For 38 consecutive years, the Institute has been a steadfast participant in the 'Hydraulics' Olympiad, consistently securing the top position for 37 of those years. This remarkable achievement can be attributed, in large part, to the unwavering dedication and leadership of the institute's esteemed figures, including Professor A.M. Arifjanov and the distinguished professors of the "Hydraulics and Hydroinformatics" department under his able guidance.

## Topics covered in "EVRIKA" extracurricular activities are:

- The content of the science "Hydraulics" and its history. A conversation about scientific research conducted by Uzbek scientists in recent years.
- Excursion to the "Hydraulics" laboratory.
- Floating bodies in liquid and Archimedes' law.
- Fluid movement regimes and basic analytical methods for their study.
- Analysis of the water problem in Uzbekistan and the scientific research conducted to solve it.
- Preparation for the Olympiad in "Hydraulics". Discussion on "Interesting hydraulics" issues.
- A conversation on the topic of scientific work in the field of hydraulics and problems in this field.
- Methods of measuring water consumption and speed
- Application of hardware in the hydraulic calculation of short pipes
- Fluid movement in non-cylindrical pipes
- Use and practical application of liquid energy
- Study of turbidity in channels
- Determination of the most convenient cross-section of trapezoidal channels
- Hydraulic jump and its calculation
- Calculation of energy extinguishing facilities. Energy absorbing walls and wells
- Determining the size of reservoirs

The gifted members of the "EVRIKA" club have accomplished a notable array of achievements. In the year 2023, their excellence was demonstrated as 12 students secured victories at the district level, with an additional 5 students achieving triumph at the regional level, and one student emerging victorious at the national level in the "Ulugbek vorislari" competition. Furthermore, their active engagement extends to participation in startup initiatives endorsed by the Innovative Development Agency.

Day, time and place of the meeting: Every Wednesday at 15:00 in auditorium G-419. Responsible for working with gifted students: Employees of the department: M.Y. Otakhanov,

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