

Kyrgyzstan Olympiad in Informatics:

Preparing Students

Conducting the Olympiad

Contest Management System

Kyrgyzstan











Rounds of Olympiads in Kyrgyzstan

- ▶ Schools
- ▶ Districts
- ▶ Regions (Bishkek and Osh cities have a special distinct status)
- ▶ National

Number of Participants in Kyrgyz Olympiad of 2017

- ▶ I round - carried by local schools (open-call for participation)
- ▶ II round - carried by local schools
- ▶ III round - 158 students from 9 regions
- ▶ IV round - 19 students (2 students - from every region and 1 - last year winner)

Programming languages of Olympiad

- ▶ C++
- ▶ Pascal
- ▶ Qbasic

Kyrgyzstan's Best Results in IOI (2000-2015)

Year	Contestant	Score		Rank	
		Abs.	Rel.	Abs.	Rel.
2005	Igor Goroshko	319	53.17%	110/276	60.51%
2004	Aleksey Baryshnikov	265	44.17%	143/291	51.20%
2000	Andrey Mokhov	250	35.71%	129/278	53.96%

Our cooperation

From 2015 Kyrgyzstan began to cooperate with neighboring Kazakhstan and Russian Federation in preparing students for the IOI contest.

Kyrgyz students attended summer schools:

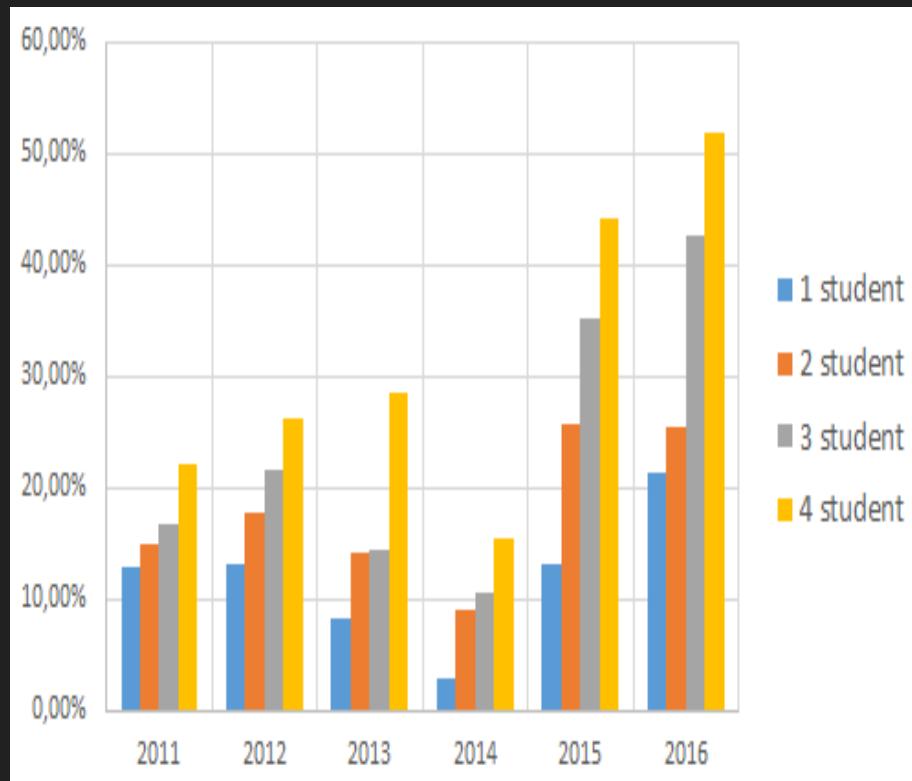
- 2015 - Almaty (Kazakhstan)
- 2016 - Innopolis (Tatarstan, Russian Federation)
- 2017 - Almaty (Kazakhstan), Kostroma (Russian Federation)

Our results and achievements

- ✓ APIO (Asia Pacific Informatics Olympiad) - honorable mentions,
- ✓ IZhO (International Zhautykov Olympiad) - *gold, silver, and bronze medals.*
- ✓ All-Russian Olympiad of School Students in Informatics - *diplomas of 2nd and 3rd degree.*

Results in IOI

Year	1 student	2 student	3 student	4 student
2011	12,87%	14,85%	16,83%	22,11%
2012	13,23%	17,74%	21,61%	26,13%
2013	8,36%	14,05%	14,38%	28,43%
2014	2,89%	9,00%	10,61%	15,43%
2015	13,04%	25,78%	35,09%	44,10%
2016	21,43%	25,32%	42,53%	51,95%



Our trainings

- ▶ Russian websites - acm.timus.ru, codeforces.com, acmp.ru, e-maxx.ru, etc.
- ▶ Ukrainian website - e-olymp.com,
- ▶ csacademy.com, usaco.org - popular in Kyrgyzstan.
- ▶ Kyrgyz website - olymp.krsu.edu.kg (was made for conducting college students Olympiads according to ACM ICPC rules and regulations),
- ▶ Online IOI practice tasks (2017).

Organization of Olympiads in Kyrgyzstan

- ▶ 2000-2014 - manual system,
- ▶ since 2015 - Automated Contest Management System (ACMS “Kalys”).

ACMS improves:

- ✓ the quality of program check,
- ✓ better preparation of high school students,
- ✓ selecting the best contest participants by objective criteria.

ACMS “Kalys”

- ▶ ACMS “Kalys” was developed at the Software Engineering Department of Kyrgyz State Technical University
- ▶ Python/Django framework
- ▶ MySQL.
- ▶ Task description - Kyrgyz (state language), Russian (official language),
- ▶ User Interface - Kyrgyz, Russian, and English.

ACMS “Kalys”

The system has 2 modes of task evaluation:

- ▶ IOI standard for managing high school student Olympiads
- ▶ ACM standard for managing college student Olympiads.

The system supports 4 types of task evaluation and checking:

- ▶ Exact answer;
- ▶ Answer with given precision;
- ▶ Multiple correct answers;
- ▶ Interactive problems.

Recommendations of State Methodical Commission of the Kyrgyz Olympiad in Informatics

- ▶ Oblige secondary school teachers to attend refresher courses;
- ▶ Teach secondary school students C++ and Pascal;
- ▶ Introduce Informatics to the school curricula from the 5th grade;
- ▶ Use the ACMS “Kalys” at the Informatics Olympiads in 3rd and 4th rounds throughout the country;
- ▶ Remove district and regional quotas and introduce common national ranking;
- ▶ Create an official website of national high school Olympiad with an automated solution checking system for students to be able to practice before the Olympiad.

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