

Cooperation in ACM ICPC Training Camps Organization

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About Universities

- ETH Zurich:
 - 21 Nobel Prizes have been awarded to students or professors of ETH Zurich in the past
 - Never participated in ACM ICPC World Finals before 2011
- St. Petersburg University ITMO:
 - Participates in ACM ICPC World Finals since 1995
 - Three times ACM ICPC World Champions

Idea of cooperation

- ACM ICPC World Champions from SPbSU ITMO regularly (one time per three months) come for a week to ETH Zurich to share their experience and teach ETH Zurich students
- Trainingsweek = arrival day + 5 contest days + day-off + departure day

Other areas of cooperation between ITMO and ETH

- Research in the area of Software Engineering:
 - Several workshops in 2006-2010 in ITMO with participation of head of software engineering chair Prof. Bertrand Meyer
 - Establishment of Software Engineering and Verification Chair in ITMO (head – Prof. Bertrand Meyer)
- Informatics camps for high-school students:
 - In 2010 and 2011 SPbSU ITMO took part in organization of Davos Informatics Camp
 - In 2011 a group of St. Petersburg high-school students took part in this camp

First Trainingsweek

- 16–23 March, 2010
- Coaches: Fedor Tsarev and Maxim Buzdalov
- Participants:
 - 7 ETH students, divided into three teams
- Problems from NEERC quarterfinals and NWERC semifinals
- Problem analysis on request without slides
- Five days:
 - One personal training
 - Lecture day (2 lectures)
 - Three team trainings
- A local trainingsweek web-site was set up; test data and judges' solutions for all problems were available for download right after the end of each contest

Photos



Testing System

- We used PCMS2 system to organize contests
 - Stand-alone client – first and second trainingsweeks
 - Web client – third and fourth trainingsweeks
- Developed at SPbSU ITMO
 - Used on NEERC, some sub-regionals of NEERC
 - Use on high school programming contests in Russia

Second Trainingsweek

- 05–12 June, 2010
- Five team trainings
- Coaches: Fedor Tsarev and Maxim Buzdalov
- 9 ETH students, divided into three teams
- Problems from NEERC quarterfinals and semifinals
- Problem analyses with slides were presented for all problems after each of the trainings
- A local web-site similar to the site of the first trainingsweek was set up

Third Trainingsweek

- 17–24 October, 2010
- Five trainings for teams
- Coaches: Fedor Tsarev and Andrey Stankevich
- Participants:
 - SPbSU ITMO (3 students, 1 team)
 - ETH Zurich (8 students, 3 teams)
 - Ecole Polytechnique Federale Lausanne (7 students, 3 teams)
- Problems from Petrozavodsk training camps and from SPb high school competitions
- Problem analyses with slides for all problems after each of the trainings
- A web-site <http://neerc.ifmo.ru/trains/zurich/> was set up
- Tests and solution were available for download only after the end of the trainingsweek

Result of three trainingsweeks

- ETH Zurich team has won SWERC 2010 (<http://pc.fdi.ucm.es/swerc/icpc10/Standings.html>) and advanced to ACM ICPC World Finals for the first time in history



RANK	INST.	TEAM	SCORE	A ●	B ●	C ●	D ●	E ●	F ●	G ●	H ●	I ●	J ●
1	ETH	Dirt collector	5 904	1 (15 + 0)	0	5 (129 + 80)	1 (256 + 0)	0	4 (112 + 60)	7	2 (232 + 20)	8	13
2		Techies	4 558	2 (26 + 20)	0	2 (205 + 20)	0	0	0	3	2 (131 + 20)	0	4 (76 + 60)
3		X08 AndréFerraroJacques	4 700	1 (19 + 0)	0	7 (207 + 120)	1	0	1 (165 + 0)	0	2 (169 + 20)	0	1
4		UPC-2	4 732	1 (17 + 0)	0	1 (176 + 0)	0	2 (256 + 20)	5 (183 + 80)	0	0	2	6
5		ENS Ulm 2	3 516	1 (17 + 0)	0	1	5	0	1 (287 + 0)	0	1	1	3 (172 + 40)
6		ENS Ulm 1	3 546	1 (34 + 0)	6	3 (158 + 40)	1	0	4	0	1	0	4 (254 + 60)
7	ETH	Stack of shorts	2 106	1 (35 + 0)	0	1 (71 + 0)	0	0	6	0	0	1	3

Fourth Trainingsweek

- 13–21 April, 2011
- Five team trainings
- Coaches: Fedor Tsarev, Andrey Stankevich and Maxim Buzdalov
- Participants:
 - 3 students from SPbSU ITMO
 - 7 ETH students, divided into three teams
- Problems from ACM ICPC World Finals, European and Asian Regional Contests
- Problem analyses with slides were made on request
- A web-site <http://neerc.ifmo.ru/trains/zurich/> was set up
- Tests and solution were available for download only after the end of the trainingsweek

Financial and Organizational Support

- The financial support: Hasler Stiftung (<http://www.haslerstiftung.ch/>)
 - Travel costs
 - Accommodation costs
 - Honorariums for coaches
- Organizational support: ETH Zurich

Future and ongoing work (1)

- 2011-2012 season: three trainingsweeks
 - Including trainingsweek for team selection
- Teams from other universities (but preferably not from SWERC) are welcome to join our trainingsweeks!
 - But you should also find the financial support

Future and ongoing work (2)

- SPbSU ITMO plans to start a semester educational program in September 2011 or in February 2012
 - Students will be taught algorithms and how to use competitive approach in education
 - Students will have a special course about participation in ACM ICPC
 - We need at least 10-12 students to start
 - If you are interested and need more information, contact me

Thank you!

Questions?

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