



ICPC FACT SHEET – Fifth Release – 10 April 2013

The 37th Annual World Finals of the ACM International Collegiate Programming Contest (ICPC) sponsored by IBM

hosted by the St. Petersburg National Research University ITMO
in St. Petersburg, Russia, 30 June – 4 July, 2013

About the Contest – <http://www.acmicpc.org>, also <http://icpc.baylor.edu>

The ACM International Collegiate Programming Contest (ICPC) traces its roots to a competition held at Texas A&M in 1970 hosted by the Alpha Chapter of the UPE Computer Science Honor Society. The idea quickly gained popularity within the United States and Canada as an innovative initiative to raise the aspirations, performance, and opportunity of the top students in the emerging field of computer science.

The contest evolved into a multi-tier competition with the first Finals held at the ACM Computer Science Conference in 1977. Operating under the auspices of ACM and headquartered at Baylor University since 1989, the contest has expanded into a global network of universities hosting regional competitions that advance teams to the ACM-ICPC World Finals.

Since IBM became sponsor in 1997, ICPC participation has increased by more than 1100%. This year, ICPC participation included 29,479 of the finest students and faculty in computing disciplines from 2,322 universities from 91 countries on six continents.

The contest fosters creativity, teamwork, and innovation in building new software programs, and enables students to test their ability to perform under pressure. Quite simply, it is the oldest, largest, and most prestigious programming contest in the world.

The annual event is comprised of several levels of competition:

- *Local Contests* – Universities choose teams or hold local contests to select one or more teams to represent them at the next level of competition. Selection takes place from a field of over 300,000 students in computing disciplines worldwide.
- *Regional Contests* (September to December 2012) – 29,479 contestants from 2,322 universities in 91 countries on 6 continents competing at over 300 sites have been certified as of December 27, 2012. A total of 35,383 students competed in the ICPC and ICPC assisted contests combined. This year will have record participation.
- *World Finals* (June 30 – July 4, 2013, St. Petersburg, Russia) – Hosted by St. Petersburg National Research University ITMO, one hundred and twenty (120) world finalist teams will compete for awards, prizes and bragging rights. These teams represent the best of the great universities on six continents - the cream of the crop.

Battle of the Brains

The contest pits teams of three university students against eight or more complex, real-world problems, with a grueling five-hour deadline. Huddled around a single computer, competitors race against the clock in a battle of logic, strategy and mental endurance.

Teammates collaborate to rank the difficulty of the problems, deduce the requirements, design test beds, and build software systems that solve the problems under the intense scrutiny of expert judges. For a well-versed computer science student, some of the problems require precision only. Others require a knowledge and understanding of advanced algorithms. Still others are simply too hard to solve – except, of course, for the

world's brightest problem-solvers.

Judging is relentlessly strict. The students are given a problem statement – not a requirements document. They are given an example of test data, but they do not have access to the judges' test data and acceptance criteria. Each incorrect solution submitted is assessed a time penalty. You don't want to waste your customer's time when you are dealing with the supreme court of computing. The team that solves the most problems in the fewest attempts in the least cumulative time is declared the winner.

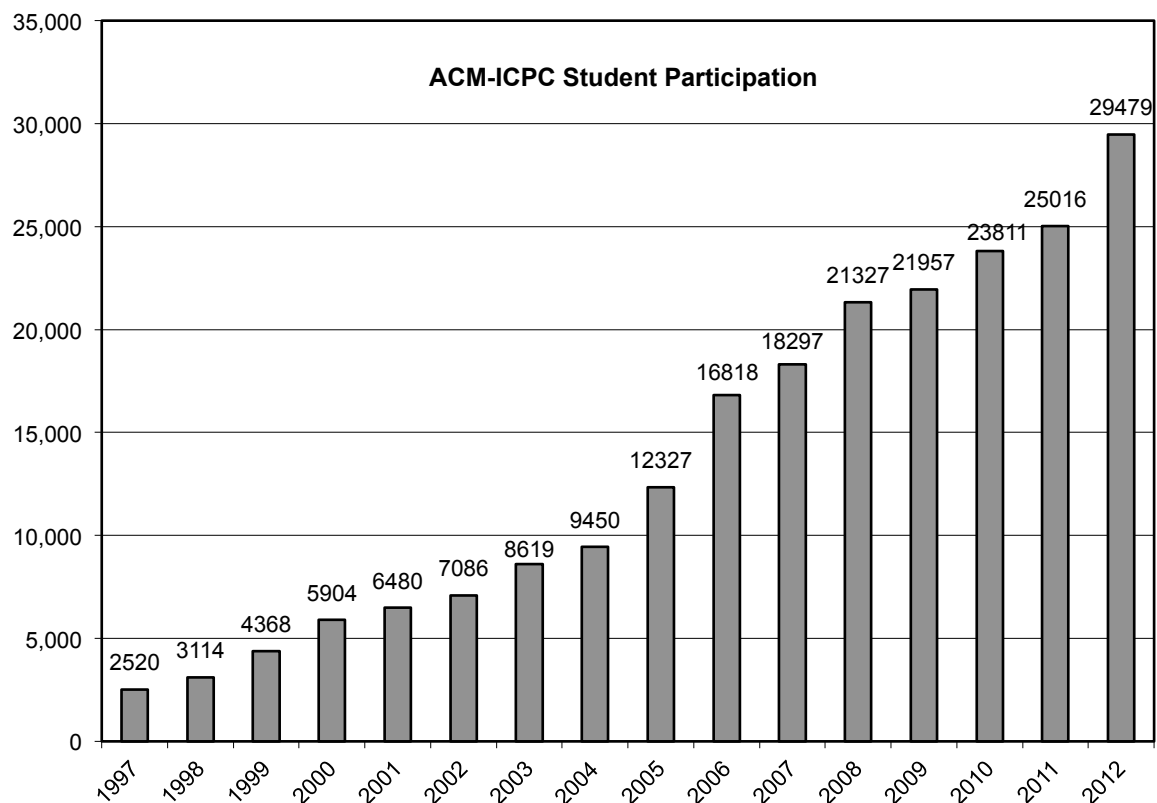
To learn more about the ICPC, please visit <http://icpc.baylor.edu> or <http://acmicpc.org>.

For full coverage of the World Finals including social media, photos, video, live coverage, and live scoreboard go to ICPC Digital, <http://icpc.baylor.edu/digital>.

Visit the ICPC podcast series at <http://battleofthebrains.podbean.com> for insights from past contestants and current IBM executives.

Contest Growth

ACM, IBM, UPE, and Baylor University are thrilled that the contest continues to attract the best and brightest students from around the world with 29,479 contestants from 2,322 universities in 91 countries competing this year as of December 27, 2012. Since the beginning of IBM's sponsorship in 1997, participation has increased more than 1100%. For more information on previous contests, and last year's final standings and problem sets, please see <http://icpc.baylor.edu/> or <http://www.ibm.com/university/acmcontest/>. Growth continues.



World Finals 2013 hosted by the St. Petersburg University ITMO – the final round for the 2012 Regionals

One hundred and twenty teams from regional contests servicing universities worldwide have advanced to the World Finals to be held in St. Petersburg, Russia, June 30 to July 4, 2013. The World Finals is hosted by the St. Petersburg National Research University of Information Technologies, Mechanics and Optics. ITMO has four World Championships, the most by any university in ICPC history, and regularly advances teams to the World Finals. The Prime Minister of the Russian Federation, Dmitry Medvedev, is Honorary Chair of the 2013 ACM-ICPC World Finals Patrons. Vladimir Parfenov and Roman Elizarov, founders of the ICPC in the Russian Federation, serve as World Finals Directors.

Recent medal winners in order of finish are:

- 2012 Gold: St. Petersburg National Research University ITMO (Russia)
University of Warsaw (Poland)
Moscow Institute of Physics & Technology (Russia)
Shanghai Jiao Tong University (China)
- 2011 Gold: Zhejiang University (China)
University of Michigan at Ann Arbor (U. S. A.)
Tsinghua University (China)
St. Petersburg State University (Russia)
- 2010 Gold: Shanghai Jiao Tong University (China)
Moscow State University (Russia)
National Taiwan University (Taiwan)
Taras Shevchenko Kiev National University (Ukraine)
- 2009 Gold: St. Petersburg National Research University ITMO (Russia)
Tsinghua University (China)
St. Petersburg State University (Russia)
Saratov State University (Russia)
- 2008 Gold: St. Petersburg National Research University ITMO (Russia)
Massachusetts Institute of Technology (U. S. A.)
Izhevsk State Technical University (Russia)
Lviv National University (Ukraine)

About ACM

ACM, the Association for Computing Machinery, with more than 100,000 members, is the world's largest educational and scientific computing society, uniting computing educators, researchers, professionals, and students to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking. For more information, see <http://www.acm.org>.

About IBM

With the Smarter Planet initiative, IBM believes intelligence allows for the growth and innovation of human life, including the way people live, work, and govern themselves; the way services are ordered and delivered; and the way the environment is protected.

The world is already connected economically, technologically and socially. However, being connected alone is not sufficient. The world needs new generations of talent, leaders and problem solvers to infuse intelligence into our daily lives.

IBM is the world's largest information technology and service provider. Over the last decade, IBM has driven a significant transformation of its business model as the company shifts to higher value areas and improve efficiency of the business. IBM has been building these capabilities to round out the portfolio to address the needs of clients and the society.

IBM has 35,000 software engineers in more than 90 research and development laboratories around the globe, who focus on solving real-world business issues for clients in more than 170 countries. IBM invests in high business values and strategic markets such as Business Analytics and Optimization; Cloud Computing; Smarter Commerce; Business Services; Enterprise Operations; Risk Management; Mobile Computing; and Collaboration. IBM's Watson computer is an example of data analytics. IBM provides industry solutions in areas such as smarter cities, energy, utility, financial markets, chemicals, petroleum, electronics, public service, health care, retail, telecommunications, transportation, manufacturing, media and entertainment. For more information, visit <http://www.ibm.com/software>.

IBM's Commitment

IBM's sponsorship commitment to the ACM International Collegiate Programming Contest is part of a company-wide effort to advance the next generation of technology leaders and problem solvers who have combined skills of computing science and business management. For more information, visit <http://www.ibm.com/university/acmcontest/>

The University ITMO Commitment

St. Petersburg National Research University of Information Technologies, Mechanics and Optics (ITMO) has a historical commitment to excellence in problem solving. Having championed the ICPC throughout the Russian Federation and surrounding countries, ITMO is among the most be-medaled university in the world with the most World Championships of any university in the world, four. As one of only a handful of National Research Universities, ITMO empowers the next generation of innovators. For more information, visit <http://en.ifmo.ru/>.

Baylor University's Commitment

Baylor University has been the home of the ICPC since the late 1980s, where it has been managed under the direction of Executive Director and Professor, Dr. William B. Poucher with global enterprise technology development headed by Dr. Jeff Donahoo, Deputy Executive Director. The ICPC contributes to Baylor's global mission to encourage the next generation to develop and apply their problem-solving talents to the challenges that face the world today and the world to come. Chartered by the Republic of Texas, Baylor is the oldest institution of higher learning in the State of Texas. You may find more about Baylor at <http://www.baylor.edu/>.

Upsilon Pi Epsilon's Commitment

The Upsilon Pi Epsilon International Computer Science Honor Society recognizes the best students of computer science and engineering in the world. Since its earliest participation, the UPE has provided support and scholarships to the World Finals teams. The UPE boasts the longest continuous relationship to the ICPC, dating back to 1970 with the first event held at Texas A&M by members of the Alpha Chapter of the UPE. For more information about other UPE activities, its chapters, and its membership click on: <http://www.acm.org/upe/>.

2013 ACM-ICPC World Finals List by Regions (In alphabetical order by region)

Africa and the Middle East

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|---|--------------|
| Alexandria University - Faculty of Engineering | Egypt |
| The American University in Cairo | Egypt |
| Arab Academy for Science and Technology - Alexandria | Egypt |
| Cairo University - Faculty of Computers and Information | Egypt |
| German University in Cairo | Egypt |
| Tishreen University | Syria |
| University of Cape Town | South Africa |

Asia

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|---|------------|
| Bangladesh University of Engineering and Technology | Bangladesh |
| Shahjalal University of Science and Technology | Bangladesh |
| Beihang University | China |
| Beijing Institute of Technology | China |
| Beijing University of Posts and Telecommunications | China |
| Fudan University | China |
| Harbin Institute of Technology | China |
| Huazhong University of Science & Technology | China |
| Ningbo Institute of Technology, ZJU | China |
| Northeast Normal University | China |
| Peking University | China |
| Renmin University of China | China |
| Shanghai Jiao Tong University | China |
| South China University of Technology | China |
| Tianjin University | China |
| Tsinghua University | China |
| University of Electronic Science and Technology of China | China |
| Zhejiang University | China |
| Zhongshan (Sun Yat-sen) University | China |
| Hong Kong University of Science and Technology | Hong Kong |
| The Chinese University of Hong Kong | Hong Kong |
| University of Hong Kong | Hong Kong |
| Institut Teknologi Bandung | Indonesia |
| Chennai Mathematical Institute | India |
| Indian Institute of Technology - Bombay | India |
| Indian Institute of Technology - Indore | India |
| Indian Institute of Technology - Roorkee | India |
| International Institute of Information Technology - Hyderabad | India |
| Amirkabir University of Technology | Iran |
| Sharif University of Technology | Iran |
| University of Tehran | Iran |
| The University of Electro-Communications | Japan |
| The University of Tokyo | Japan |
| Tokyo Institute of Technology | Japan |
| KAIST | Korea |
| SungKyunKwan University | Korea |
| Nanyang Technological University | Singapore |

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|----------------------------------|-----------|
| National University of Singapore | Singapore |
| National Taiwan University | Taiwan |
| Can Tho University | Vietnam |

Europe & the Russian Federation

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|---|--------------------|
| Belarusian State University | Belarus |
| Ludwig-Maximilians Universität München | Germany |
| Universität Rostock | Germany |
| International IT University | Kazakhstan |
| Kazakh-British Technical University | Kazakhstan |
| Kaunas University of Technology | Lithuania |
| Universiteit Leiden | Netherlands |
| Jagiellonian University in Krakow | Poland |
| University of Warsaw | Poland |
| University of Wrocław | Poland |
| University of Bucharest | Romania |
| Altai State Technical University | Russian Federation |
| Izhevsk State Technical University | Russian Federation |
| Moscow Aviation Institute | Russian Federation |
| Moscow Institute of Physics & Technology | Russian Federation |
| Moscow State Institute of Steel and Alloys | Russian Federation |
| Moscow State University | Russian Federation |
| Novosibirsk State University | Russian Federation |
| Perm State University | Russian Federation |
| Saint Petersburg Academic University | Russian Federation |
| Samara State Aerospace University | Russian Federation |
| Saratov State University | Russian Federation |
| St. Petersburg National Research University of ITMO | Russian Federation |
| St. Petersburg State University | Russian Federation |
| Ufa State Aviation Technical University | Russian Federation |
| Ural Federal University | Russian Federation |
| Comenius University | Slovakia |
| Universitat Politècnica de Catalunya | Spain |
| ETH Zürich | Switzerland |
| Taras Shevchenko Kiev National University | Ukraine |
| V. N. Karazin Kharkiv National University | Ukraine |

Latin America

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|---|-----------|
| Universidad de Buenos Aires - FCEN | Argentina |
| Universidad Nacional del Sur | Argentina |
| Instituto Tecnológico de Aeronautica | Brazil |
| Universidade de São Paulo - Escola Politécnica | Brazil |
| Universidade de São Paulo | Brazil |
| - Instituto de Ciências Matemáticas e de Computação | |
| Universidade Estadual de Campinas | Brazil |
| Universidade Federal de Minas Gerais | Brazil |
| Universidade Federal de Pernambuco | Brazil |
| Universidad de Chile | Chile |
| EAFIT University | Colombia |
| Universidad Nacional de Colombia - Bogotá | Colombia |

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|--|----------|
| Universidad Tecnologica de Pereira | Colombia |
| Universidad de La Habana | Cuba |
| Universidad de las Ciencias Informáticas | Cuba |
| Escuela Superior De Computo Instituto Politecnico Nacional | Mexico |
| Universidad Panamericana Campus Bonaterra | Mexico |
| Universidad Nacional de Ingeniería - FIIS | Peru |

North America

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|---|---------------|
| University of Calgary | Canada |
| University of British Columbia | Canada |
| University of Lethbridge | Canada |
| University of Manitoba | Canada |
| University of Toronto | Canada |
| University of Waterloo | Canada |
| Carnegie Mellon University | United States |
| Columbia University | United States |
| LeTourneau University | United States |
| Rose-Hulman Institute of Technology | United States |
| Massachusetts Institute of Technology | United States |
| South Dakota School of Mines and Technology | United States |
| Stanford University | United States |
| University of Central Florida | United States |
| University of Chicago | United States |
| University of Connecticut | United States |
| University of Florida | United States |
| University of Illinois at Urbana-Champaign | United States |
| University of Maryland | United States |
| University of Minnesota - Twin Cities | United States |
| University of Southern California | United States |
| University of Virginia | United States |
| University of Wisconsin - Madison | United States |

South Pacific

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|-------------------------------|-----------|
| University of New South Wales | Australia |
| University of Sydney | Australia |