



## ICPC FACT SHEET – 9th Edition – 2 March 2011

### The 35<sup>th</sup> Annual World Finals of the ACM International Collegiate Programming Contest (ICPC) sponsored by IBM

#### *About the Contest*

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, the ICPC has increased by 1000%. Participation in the ICPC and ICPC supported contests has grown even faster involving over thirty thousand of the finest students and faculty in computing disciplines from over two thousand universities from 88 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 2010) – This year 24,915 contestants competed on 8,305 teams from 2,070 universities from 88 countries on six continents at over 250 sites.
- *World Finals* (May 27-31, 2011, Orlando, Florida) – One hundred and five (105) world finalist teams will compete for awards, prizes and bragging rights at The Peabody Orlando Hotel. 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.

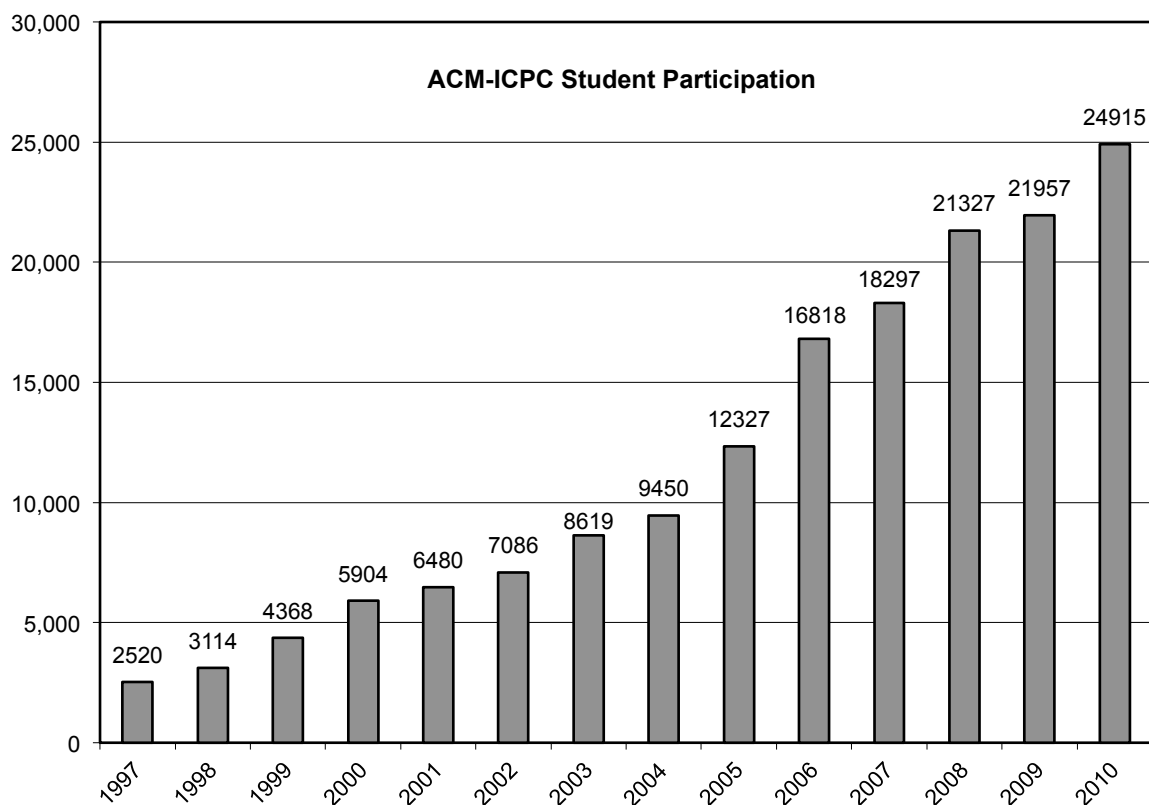
Teammates collaborate to rank the difficulty of the problems, deduce the requirements, design test beds, and build software systems that solve the problems under the intense scrutiny of expert judges. For a well-versed computer science student, some of the problems require precision only. Others require 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://acmicpc.org> or <http://icpc.baylor.edu/>. 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 24,915 contestants from 2,070 universities in 88 countries competing this year. Since the beginning of IBM’s sponsorship in 1997, participation has increased 1000%. 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 2011 – the final round for the 2010 Regionals***

One hundred and five teams from regional contests servicing universities worldwide qualified to advance to the World Finals to be held in Orlando, Florida, May 27 – 31, 2011. The World Finals is hosted at the Peabody Orlando. Recent medal winners in order of finish are:

- 2010 Gold: Shanghai Jiaotong University  
Moscow State University  
National Taiwan University  
Taras Shevchenko Kiev National University
- 2009 Gold: St. Petersburg State University of Information Technology, Mechanics & Optics (Russia)  
Tsinghua University (China)  
St. Petersburg State University (Russia)  
Saratov State University (Russia)

- 2008 Gold: St. Petersburg State University of Information Technology, Mechanics & Optics (Russia)  
Massachusetts Institute of Technology (U. S. A.)  
Izhevsk State Technical University (Russia)  
Lviv National University (Ukraine)
- 2007 Gold: Warsaw University (Poland)  
Tsinghua University (China)  
St. Petersburg State University of Information Technology, Mechanics & Optics (Russia)  
Massachusetts Institute of Technology (U. S. A.)

#### ***About ACM***

The Association for Computing Machinery (ACM) is a major force in advancing the skills of information technology professionals and students. ACM serves its global membership of 80,000 by delivering cutting edge technical information and transferring ideas from theory to practice. ACM hosts the computing industry's leading Portal to Computing Literature. With its journals and magazines, special interest groups, conferences, workshops, electronic forums, Career Resource Centre and Professional Development Centre, ACM is a primary resource to the information technology field. For more information, see <http://www.acm.org>.

#### ***About IBM***

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

IBM is the world's largest information technology and service provider. 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 offers new services to transform businesses using the latest technologies, including but not limited to: business analytics which turn information into insights, as well as systems optimization, risk and security management, business process management, collaboration and cloud computing. IBM helps clients in various industries, including but not limited to: smarter cities, energy, utility, banking, 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/>

#### ***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/>.

**The 2011 ACM-ICPC World Finals List by Regions (In alphabetical order by region)**

**Africa and the Middle East**

Ain Shams University	Egypt
Alexandria University - Faculty of Engineering	Egypt
Cairo University - Faculty of Computers and Information	Egypt
German University in Cairo	Egypt
King Abdullah University of Science and Technology	Saudi Arabia
University of Stellenbosch	South Africa
American University of Sharjah	United Arab Emirates

**Asia**

Bangladesh University of Engineering and Technology	Bangladesh
Beijing Jiaotong University	China
East China Normal University	China
Fudan University	China
Fuzhou University	China
Hangzhou Dianzi University	China
Harbin Engineering University	China
Harbin Institute of Technology	China
Huazhong University of Science & Technology	China
Peking University	China
Shandong University	China
Shanghai Jiaotong University	China
Sichuan University	China
Tianjin University	China
Tsinghua University	China
University of Electronic Science and Technology of China	China
Wuhan University	China
Zhejiang Normal University	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
DJ Sanghvi College of Engineering	India
Indian Institute of Technology - Delhi	India
Indian Institute of Technology - Kanpur	India
International Institute of Information Technology - Hyderabad	India
Amirkabir University of Technology	Iran
Sharif University of Technology	Iran
Kyoto University	Japan
University of Tokyo	Japan
Korea Advanced Institute of Science and Technology	Korea, Republic of
Seoul National University	Korea, Republic of
Nanyang Technological University	Singapore
National Taiwan University	Taiwan
Ho Chi Minh City University of Science	Vietnam

**Europe & the Russian Federation**

Belarusian State University	Belarus
University of Helsinki	Finland
Friedrich-Alexander-University Erlangen-Nuremberg	Germany
Kazakh-British Technical University	Kazakhstan
Leiden University	Netherlands
Jagiellonian University in Krakow	Poland
University of Warsaw	Poland
University of Wroclaw	Poland
Moscow Institute of Physics & Technology	Russian Federation
Moscow State University	Russian Federation
Nizhny Novgorod State University	Russian Federation
Novosibirsk State University	Russian Federation
Orel State Technical University	Russian Federation
Perm State University	Russian Federation
Saratov State University	Russian Federation
South Ural State University	Russian Federation
St. Petersburg State University of IT, Mechanics and Optics	Russian Federation
St. Petersburg State University	Russian Federation
Ural State University	Russian Federation
Swiss Federal Institute of Technology Zurich - VIS	Switzerland
Donetsk National University	Ukraine
Lviv National University	Ukraine
Taras Shevchenko Kiev National University	Ukraine
Taurida V.I. Vernadsky National University	Ukraine

**Latin America**

Universidad de Buenos Aires - FCEN	Argentina
Universidad Nacional de Córdoba - FaMAF	Argentina
Universidad Católica Boliviana - La Paz	Bolivia
Instituto Tecnológico de Aeronautica	Brazil
Universidade de São Paulo - Escola Politécnica	Brazil
Universidade de São Paulo - IME	Brazil
Universidade Federal de Minas Gerais	Brazil
Universidade Federal de Pernambuco	Brazil
Universidade Federal do Paraná	Brazil
EAFIT University	Columbia
Universidad del Valle	Columbia
Universidad Nacional de Colombia - Bogotá	Columbia
Universidad de La Habana	Cuba
Universidad de las Ciencias Informáticas	Cuba
Universidad de Guanajuato - CIMAT	Mexico
Pontificia Universidad Católica del Perú	Peru

**North America**

Simon Fraser University	Canada
University of Alberta	Canada
University of Waterloo	Canada
California State University - Chico	United States
Carnegie Mellon University	United States
Duke University	United States
Harvey Mudd College	United States
Illinois State University	United States
Massachusetts Institute of Technology	United States
Princeton University	United States
South Dakota School of Mines and Technology	United States
University of California - San Diego	United States
University of Chicago	United States
University of Illinois at Urbana-Champaign	United States
University of Maryland	United States
University of Miami	United States
University of Michigan at Ann Arbor	United States
University of Minnesota - Twin Cities	United States
University of Oklahoma	United States
University of Virginia	United States
University of Wisconsin - Madison	United States

**South Pacific**

University of New South Wales	Australia
University of Canterbury	New Zealand