









FACT SHEET -1st Edition - 8 October 2010

The ACM International Collegiate Programming Contest sponsored by IBM hosted at the Sharm El Sheikh Maritim Jolie Ville Resorts & ICC

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 contest has increased over 800%. Participation has grown to involve twenty-two thousand of the finest students and faculty in computing disciplines from over 1,931 universities from 82 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 November 2010) This past year, nearly 22,000 contestants from 1,931 universities from 82 countries on six continents competed at 242 sites.
- World Finals (February 27-March 4, 2011, Sharm El Sheikh, Egypt) –One hundred world finalist teams will compete for awards, prizes and bragging rights at the International Congress Center. 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.

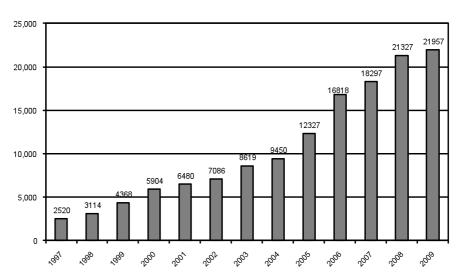
Judging is relentlessly strict. The students are given a problem statement – not a requirements document. They are given an example of test data, but they do not have access to the judges' test data and acceptance criteria. Each incorrect solution submitted is assessed a time penalty. You don't want 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/. 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 nearly 22,000 contestants from 1,931 universities in 82 countries competing this year. Since the beginning of IBM's sponsorship in 1997, participation has increased over 800%. For more information on previous contests, and last year's final standings and problem sets, please see http://icpc.baylor.edu/ or http://icpc.baylor.edu/ or http://www.ibm.com/university/acmcontest/. Growth continues in 2010.

ACM-ICPC Student Participation



World Finals 2011 - the final round for the 2010 Regionals

One hundred teams from regional contests servicing universities worldwide will qualify to advance to the World Finals to be held in Sharm El Sheikh, Egypt, February 27 – March 4, 2011. The World Finals is hosted at the Maritim Jolie Ville Royal Peninsula and Golf Resorts and the International Congress Center. Recent medal winners in order of finish are:

2010 Gold: Shanghai Jioatong University

Moscow University

National Taiwan University

Taras Shevchenko Kiev National University

2009 Gold: St. Petersburg University of Information Technology, Mechanics & Optics (Russia)

Tsinghua University (China)

St. Petersburg State University (Russia) Saratov State University (Russia)

• 2008 Gold: St. Petersburg 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 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 will change more aspects of human life, including the way people live, work, and govern themselves; the way services are ordered and delivered; and the way air, water and forests are protected. The world is already connected economically, technically and socially. However, being connected alone is not sufficient. The world needs new generations of talent, problem solvers and leaders to infuse intelligence into our life such as power grids, transportation, and food safety.

IBM is the world's largest information technology and service provider. IBM has 30,000 software engineers in more than 80 research and development laboratories around the globe, who focus on solving real-world business issues for customers in more than 170 countries. IBM offers software services and dynamic infrastructure for customers to manage their systems, processes and applications across standard platforms. IBM has customers in industries such as telecommunications, utility, retail, public service, health care, education, transportation, finance, insurance, petroleum, manufacturing, etc. IBM explores new services using technology such as Web 2.0, virtualization, social networking, RFID, and cloud computing for new enterprise data centers. 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. 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 Harbin 2010 ACM-ICPC World Finals List by Regions (In alphabetical order by region) (2011 World Finals Universities will be posted in mid December)

Africa and the Middle East

Faculty of Computers and Information, Cairo University

The British University in Egypt

American University of Beirut

University of Cape Town

Egypt

Lebanon

South Africa

<u> Asia</u>

Bangladesh University of Engineering and Technology Bangladesh China Beijing Jiaotong University China Beijing University of Posts and Telecommunications China **Fudan University** China Fuzhou University China Guangdong University of Technology Hangzhou Dianzi University China China Harbin Engineering University China Harbin Institute of Technology China National University of Defense Technology China **Peking University** Shanghai Jiaotong University China China South China Agricultural University Southeast University China Tsinghua University China University of Electronic Science and Technology of China China Wuhan University China China Xidian University Zhejiang University China Zhejiang University of Technology China Zhongshan (Sun Yat-sen) University China Chinese University of Hong Kong Hong Kong DJ Sanghvi College of Engineering India International Institute of Information Technology - Hyderabad India National Institute of Technology, Trichy India Amirkabir University of Technology Iran Sharif University of Technology Iran **Kyoto University** Japan University of Tokyo Japan

KAIST Korea, Republic of Seoul National University Korea, Republic of Sogang University Korea, Republic of

University of the Philippines - Diliman

National University of Singapore

National Chiao Tung University

Taiwan

National Taiwan University

Ho Chi Minh City University of Science

Vietnam

Europe & the Russian Federation

Belarusian State University

Friedrich-Alexander-University Erlangen-Nuremberg

Universitat Politècnica de Catalunya

University of Helsinki

École Normale Supérieure ULM

University of Warsaw

Poland

University of Wroclaw

Poland

Izhevsk State Technical University Russian Federation Russian Federation Moscow State University Novosibirsk State University Russian Federation Russian Federation Petrozavodsk State University Russian Federation Samara State Aerospace University Russian Federation Saratov State University Russian Federation St. Petersburg State University St. Petersburg State University of IT, Mechanics and Optics **Russian Federation** Russian Federation State University - Higher School of Economics Ufa State Technical University of Aviation Russian Federation Ural State University Russian Federation

KTH - Royal Institute of Technology Sweden
National Technical University "Kharkiv Polytechnic Institute"
Ukraine
Taras Shevchenko Kiev National University
Ukraine

Latin America

Facultad de Matemática - Astronomía y Física (UNC) Argentina Universidad de Buenos Aires - FCEN Argentina Universidad Nacional de La Plata Argentina Institute of Computing - University of Campinas Brazil Brazil Instituto de Matemática e Estatística da Universidade de São Paulo Brazil Instituto Tecnológico de Aeronautica Pontificia Universidade Catolica do Rio de Janeiro Brazil Universidade Federal de Pernambuco Brazil Universidade Federal de Santa Catarina **Brazil** Universidade Federal de Sergipe Brazil Colombia Universidad de los Andes Universidad Central Marta Abreu de las Villas Cuba Mexico ITESM Campus Queretaro Universidad de Guanajuato Mexico Universidad Simón Bolívar Venezuela

North America

University of Alberta Canada Canada University of British Columbia University of Waterloo Canada **United States** Carnegie Mellon University Columbia University **United States** Cornell University **United States United States Duke University** Florida Institute of Technology **United States** Harvey Mudd College **United States United States** Massachusetts Institute of Technology Northwestern College **United States** Stanford University **United States United States** The University of Texas at Austin University of Central Florida **United States** University of Chicago **United States United States** University of Illinois - Urbana-Champaign **United States** University of Kentucky University of Maryland **United States** University of Michigan at Ann Arbor **United States** University of Nebraska - Lincoln **United States** University of North Texas **United States** University of Rochester **United States United States** University of Virginia **United States** University of Wisconsin - Madison

South Pacific

The University of Western Australia
University of Canterbury

Australia
New Zealand