The ACM INTERNATIONAL COLLEGIATE PROGRAMMING CONTEST
sponsored by IBM hosted by the University of Alberta “100 Years”


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 challenge 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 by a factor of eight (8X). Participation has grown to involve several tens of thousands of the finest students and faculty in computing disciplines at 1,821 universities from 83 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 2007) – This year, participation increased by 10% from 6,099 to 6,700 teams representing 1,821 universities from 83 countries on six continents, not counting numerous teams competing in preliminaries.

- **World Finals** (April 6-10, 2008, Fairmont Banff Springs, Alberta) – To celebrate the 100th Centenary of host the University of Alberta, one hundred (100) world finalist teams will compete for awards, prizes and bragging rights. These teams represent the best of the finest 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/.

Contest Growth

ACM, IBM, and Baylor University are thrilled that the contest continues to attract the best and brightest students from around the world, with tens of thousands of participants on 6,700 teams representing 1,821 universities in 82 countries. Since the beginning of IBM’s sponsorship in 1997, participation has increased by a factor of eight. For more information on previous contests, and last year’s final standings and problem sets, please see http://icpc.baylor.edu/past/ or http://www.software.ibm.com/acm.

World Finals 2008 – the final round for the 2007 Regionals

One hundred (100) teams from regional contests servicing universities world-wide will qualify to advance to the World Finals to be held at the Fairmont Banff Springs Hotel, Alberta, Canada, April 6-10, 2008. The World Finals is hosted by the University of Alberta that is celebrating its 100th anniversary. Recent medal winners in order of finish are:

- 2007 Gold: Warsaw University (Warsaw, Poland)
  Tsinghua University (Beijing, China)
  St. Petersburg University of Information Technology, Mechanics & Optics (Russia)
  Massachusetts Institute of Technology (U. S. A.)

- 2006 Gold: Saratov State University (Saratov, Russia)
  Jagiellonian University (Krakow, Poland)
  Altai State Technical University (Barnaul, Russia)
  University of Twente (Enschede, The Netherlands)
• 2005 Gold:  Shanghai Jiao Tong University (Shanghai, China)
Moscow State University (Moscow, Russia.)
St. Petersburg Institute for Fine Mechanics & Optics (St. Petersburg, Russia)
University of Waterloo (Waterloo, Ontario, Canada)
• 2004 Gold:  St. Petersburg Institute for Fine Mechanics & Optics (St. Petersburg, Russia)
KTH – Royal Institute of Technology (Stockholm, Sweden)
Belarusian State University (Minsk, Belarus)
Perm State University (Perm, Russia)
• 2003 Gold:  Warsaw University (Warsaw, Poland)
Moscow State University (Moscow, Russia)
St. Petersburg Institute of Fine Mechanics and Optics (St. Petersburg, Russia)
Comenius University (Bratislava, Slovak Republic)
• 2002 Gold:  Shanghai Jiao Tong University (Shanghai, China)
Massachusetts Institute of Technology (Cambridge, MA, U.S.A.)
University of Waterloo (Waterloo, Ontario, Canada)
• 2001 Gold:  St. Petersburg State University (St. Petersburg, Russia)
Virginia Tech (Blacksburg, VA, U.S.A.)
St. Petersburg Institute of Fine Mechanics & Optics (St. Petersburg, Russia)
University of Waterloo (Waterloo, Canada)

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.

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 computer scientists. For more information about other IBM college initiatives, please visit the IBM/ACM contest Web site and click on the Student Portal button - http://www.software.ibm.com/acm.

About IBM
IBM is the world's largest information technology company, with 80 years of leadership in helping businesses innovate. IBM software offers the widest range of e-business infrastructure software for all types of computing platforms, allowing customers to take full advantage of the new era of e-business. The fastest way to get more information about IBM software is through the IBM home page at http://www.software.ibm.com.

The University of Alberta’s Commitment
In conjunction with celebrating 100th anniversary, the University of Alberta is pleased to host the 2008 World Finals at the Fairmont Banff Springs Hotel in the rugged splendor of the Canadian Rockies. Located in Edmonton, the thriving capital of Alberta, and chartered shortly after Alberta’s formation, the University of Alberta is one of Canada’s finest universities, offering undergraduate and Ph.D. studies in Computer Science. You may find more about the University of Alberta at http://www.ualberta.ca.

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/.

**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/.
2008 World Finals Teams – One hundred teams selected from 6,700 teams of 1,821 universities in 83 countries

AGH University of Science and Technology
Altai State Technical University
Amirkabir University of Technology
Bangladesh University of Engineering & Technology
Beijing Jiaotong University
Beijing University of Posts and Telecommunications
Belarusian State University
Binus University
Brown University
Cairo University - Faculty of Computers & Information
California Institute of Technology
Carnegie Mellon University
Chennai Mathematical Institute
College of Technology, Vietnam National U., Hanoi
Cornell University
Duke University
East China Normal University
East West University
FaMAF - Universidad Nacional de Córdoba
Fudan University
Georgia Institute of Technology
Griffith University
Helsinki University of Technology
Hong Kong University of Science and Technology
Illinois State University
Indian Institute Of Technology, Madras
Information and Communications University
Institute of Computing - University of Campinas
Instituto Militar de Engenharia
Instituto Tecnológico de Aeronautica
Instituto Tecnológico de Culiacán
Iowa State University
Izhevsk State Technical University
Jagiellonian University
Kim Chaek University of Technology
Kyoto University
Lviv National University named after Ivan Franko
Massachusetts Institute of Technology
Michigan Technological University
Moscow Institute of Physics & Technology
Moscow State University
Nanjing University of Aeronautics and Astronautics
Nanyang Technological University
National Institute of Technology, Trichy, India
National Taiwan University
National University of Defense Technology
Northwestern University
Norwegian University of Science and Technology
Novosibirsk State University
Orel State Technical University
Oxford University
Peking University
Petrozavodsk State University
Princeton University
Seoul National University
Shandong University
Shanghai Jiao Tong University
Sharif University of Technology
Simon Fraser University
St. Petersburg State University
St. Petersburg University of IT, Mechanics and Optics
Stanford University
Stavropol State University
The American University in Cairo
The Chinese University of Hong Kong
The University of Tokyo
Tianjin University
Tsinghua University
Universidad Centroccidental Lisandro Alvarado
Universidad Complutense de Madrid
Universidad de Buenos Aires
Universidad de Guadalajara - CUCEI
Universidad de Guanajuato
Universidad de los Andes
Universidade de São Paulo
Universität Karlsruhe (TH)
University of Alberta
University of Auckland
University of British Columbia
University of Calgary
University of Cape Town
University of Central Florida
University of Delaware
University of Electronic Science and Technology of China
University of Florida
University of Illinois at Urbana-Champaign
University of Natural Sciences - VNUHCM
University of North Texas
University of Saskatchewan
University of Tehran, CS Dept
University of Texas at Austin
University of Waterloo
University of Wisconsin - Madison
University of Zagreb
Ural State University
Vinnytsia National Technical University
Warsaw University
Wuhan University
Zhejiang University
Zhongshan (Sun Yat-sen) University