







#### ICPC FACT SHEET - 22 Feb 2016

#### The 40th Annual World Finals of the ACM International Collegiate Programming Contest (ICPC) sponsored by IBM

#### hosted by Prince of Songkla University

#### in Phuket, Thailand, 15-20 May 2016

#### About the Contest - www.acmicpc.org, also icpc.baylor.edu

The ACM International Collegiate Programming Contest (ICPC) is the premiere global programming competition conducted by and for the world's universities. The competition operates under the auspices of ACM, is sponsored by IBM, and is headquartered at Baylor University. For nearly four decades, the ICPC has grown to be a game-changing global competitive educational program that has raised aspirations and performance of generations of the world's problem solvers in the computing sciences and engineering.

Teams of three students represent their universities in multiple levels of regional competition. Volunteer coaches prepare their teams with intense training and instruction in algorithms, programming, and teamwork strategy. Several ICPC universities and ICPC volunteers provide online judging systems to all free of charge. Top teams from regional competition advance to the final round. This year's regional competitions advanced 128 teams to the World Championship round - the 2016 ACM-ICPC World Finals sponsored by IBM and hosted by Prince of Songkla University – which will be conducted on 19 May 2016 in Phuket, Thailand.

The 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 1600%. This past year, ICPC participation included 40,266 of the finest students and faculty in computing disciplines from 2,736 universities from 102 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 2015) This year 40,266 contestants from 2,736 universities in 102 countries on six continents competing at over 481 sites to advance to the World Finals. A record 43,967 students and 4,637 coaches competed in ICPC and ICPC-assisted competition this year. This year set new records in participation.
- World Finals (15-20 May 2016, Phuket, Thailand) Hosted by Prince of Songkla University, one hundred and twenty-eight (128) 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.

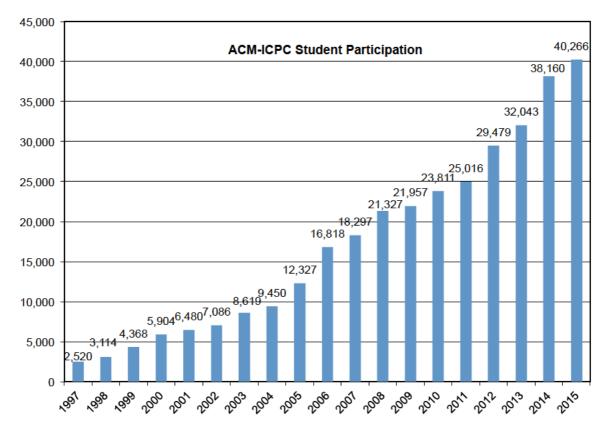
To learn more about the ICPC, please visit icpc.baylor.edu or acmicpc.org.

For full coverage of the World Finals including social media, photos, video, live coverage, and live scoreboard go to ICPCNews, icpcnews.com.

Visit the ICPC podcast series at <u>battleofthebrains.podbean.com</u> 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. This past year 40,266 contestants from 2,736 universities in 102 countries competed in regional competitions at over 481 sites worldwide. Since the beginning of IBM's sponsorship in 1997, participation has increased more than 1600%. For more information on previous contests, and last year's final standings and problem sets, please see <u>icpc.baylor.edu</u>. Growth continues.



World Finals 2016 hosted in Phuket – the final round following the 2015 Regionals

One hundred and twenty-eight teams from regional contests servicing universities worldwide will advance to the World Finals to be held in Phuket, Thailand, 15-20 May 2016. The World Finals is hosted by Prince of Songkla University. Prince of Songkla hosted the very first regional contest in Thailand in 2009.

Recent medal winners in order of finish are:

• 2015	Gold	St. Petersburg National Research University ITMO (Russia)
		Moscow State University (Russia)
		The University of Tokyo (Japan)
		Tsinghua University (China)
	Silver	Peking University (China)
		University of California at Berkeley (USA)
		University of Zagreb (Croatia)
		Charles University in Prague (Czech Republic)
	Bronze	Shanghai Jiao Tong University (China)
		Massachusetts Institute of Technology (USA)
		Korea University (Korea)
		University of Warsaw (Poland)
• 2014	Gold	St. Petersburg State University (Russia)
		Moscow State University (Russia)
		Peking University (China)
		National Taiwan University (Taiwan)
• 2013	Gold	St. Petersburg National Research University ITMO (Russia)
		Shanghai Jiao Tong University (China)
		The University of Tokyo (Japan)
		National Taiwan University (Taiwan)
• 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 (USA)
		Tsinghua University (China)
		St. Petersburg State University (Russia)

#### 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 lifelong learning, career development, and professional networking. For more information, see <u>www.acm.org</u>.

#### About IBM

IBM is a globally integrated technology and consulting company. With operations in more than 170 countries, IBM attracts and retains some of the world's most talented people to help solve problems and provide an edge for businesses, governments and non-profits. Innovation is at the core of IBM's strategy. The company develops and sells software and systems hardware and a broad range of infrastructure, focusing on growth initiatives such as cognitive computing, cloud computing, big data and analytics, mobile, social business and security. For more information, visit www.ibm.com.

#### About Prince of Songkla University

Prince of Songkla University (PSU) is a public university established in 1967 as the first university in southern Thailand. It consists of five campuses, offering various programs of education consistent with the needs of their communities. The university also comprises 30 faculties, two hospitals and more than 40 excellence and research centers. All of these have committed to academic excellence, strong social responsibility and active engagement in community services. The number of students is currently over 40,000. The main missions of the university are to raise general education standards and to support regional industry and development. Furthermore, the university aims to establish excellence in research and teaching, to provide academic services to communities and to take an active role in the preservation of national heritage in arts and culture, especially for those from southern Thailand. As a leading research university in Asia, PSU has contributed significantly to the development of the country and consistently produced well-qualified graduates of high professional standing.

#### **IBM's** Commitment

IBM's sponsorship commitment to the ACM International Collegiate Programming Contest is part of a companywide 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 <u>www.ibm.com/university</u>.

#### **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 <a href="https://www.baylor.edu">www.baylor.edu</a>.

#### 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: <u>upe.acm.org</u>.

### 2016 World Finalists – 128 teams

### Africa and the Middle East

Aleppo University	Alexandria University - Faculty of Engineering
www.alepuniv.com	eng.au.alexu.edu.eg
Team name: Beginners	Team name: New Folder
Arab Academy for Science and Technology (Alexandria)	British University in Egypt
www.aast.edu	www.bue.edu.eg
Team name: No Ana Gai Aharag	Team name: Gotta Solve Em All
Cairo University - Faculty of Computers and Information	Damascus University
www.fci.cu.edu.eg	www.damascusuniversity.edu.sy
Team name: El Psy Congroo	Team name: Nitro++
Princess Sumaya University for Technology	Tishreen University
psut.edu.jo	www.tishreen.edu.sy
Team name: EarlGrey (PSUT)	Team name: 4th FLOOR
University of Cape Town	
www.uct.ac.za	
Team name: Amazingly Complicated Macros	

### Asia

Ateneo de Manila University	Beihang University
www.admu.edu.ph	ev.buaa.edu.cn
Team name: Fuchsia Moth	Team name: TheWaySoFar
Beijing University of Posts and Telecommunications	Birla Institute of Technology & Science, Pilani Campus
www.bupt.edu.cn	www.bits-pilani.ac.in
Team name: heheda	Team name: stronglyConnected
Chulalongkorn University	Fudan University
www.chula.ac.th	www.fudan.edu.cn
Team name: CUCP Meow Meow :3	Team name: Saga
Ho Chi Minh City University of Science	Indian Institute of Information Technology – Allahabad
www.hcmus.edu.vn	www.iiita.ac.in
Team name: HCMUS - Shine	Team name: Greed for Speed
Indian Institute of Technology - Bombay	Indian Institute of Technology – Delhi
www.iitb.ac.in	www.iitd.ernet.in
Team name: ntm	Team name: angle
Indian Institute of Technology – Kanpur	Indian Institute of Technology – Roorkee
www.iitk.ac.in	www.iitr.ernet.in
Team name: FacelessMen	Team name: 11Coders
Islamic Azad University of Mashhad	Jahangirnagar University
en.mshdiau.ac.ir	www.juniv.edu
Team name: Aspire	Team name: JU O(N^3)
KAIST	Kim Il Sung University
www.kaist.ac kr	www.ryongnamsan.edu kp
Team name: [A-Za-z0-9]+	Team name: RNS
Korea University	Kyoto University
www.korea.ac kr	www.kyoto-u.ac.jp
Team name: Opportunity	Team name: breakShot
National Chiao Tung University	National Taiwan University
www.nctu.edu.tw	www.ntu.edu.tw
Team name: NCTU Thor	Team name: bcw0x1bd2
National University of Defense Technology	National University of Singapore
www.nudt.edu.cn	www.nus.edu.sg
Team name: ALPC Farewell	Team name: RRwatameda
Ningbo University	Northeastern University (China)
www.nbu.edu.cn	www.neu.edu.cn
Team name: what duang to eat dinner	Team name: NEU I forgot it.
Northeast Normal University	North South University
www.nenu.edu.cn	www.northsouth.edu
Team name: Daedalus	Team name: NSU BugLovers
Osaka University	Peking University
www.osaka-u.ac.jp	www.pku.edu.cn
Team name: chikOkU	Team name: Crawl
Prince of Songkla University	Shahid Beheshti University
www.psu.ac.th	en.sbu.ac.ir
Team name: FEDEX	Team name: In 1010101 We Trust!
Shahjalal University of Science and Technology	Shanghai Jiao Tong University
www.sust.edu	www.sjtu.edu.cn
Team name: DownToTheWire	Team name: Dreadnought
ream name. Downrornewne	ream name. Dreadhought

Shanghai University	Sharif University of Technology
http://www.shu.edu.cn	www.sharif.edu
Team name: Wand Maker	Team name: CrockPot
South China University of Technology	The Chinese University of Hong Kong
www.scut.edu.cn	www.cse.cuhk.edu.hk
Team name: SOX	Team name: Real Base
The University of Tokyo	Tianjin University
www.u-tokyo.ac.jp	www.tju.edu.cn
Team name: IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Team name: TJU_Thief_Master
Tsinghua University	University of Aizu
www.tsinghua.edu.cn	www.u-aizu.ac.jp
Team name: Wunderzeit	Team name: FinalZukky
University of Electronic Science and Technology of China	University of Engineering and Technology - VNU
www.uestc.edu.cn	e.uet.vnu.edu.vn
Team name: UESTC murasame	Team name: BYTE
Zhejiang Normal University	Zhejiang University
www.zjnu.edu.cn	acm.zju.edu.cn
Team name: NoPenalty	Team name: Siunaus
Zhongshan (Sun Yat-sen) University	
www.sysu.edu.cn	
Team name: SYSU_Braid	

## Europe

Ешоре	
Belarusian State University	Belarusian State University of Informatics
www.bsu.by	and Radioelectronics
Team name: BelarusianSU1	www.bsuir.by
	Team name: Belarusian SUIR 2
Charles University in Prague	Comenius University
www.cuni.cz	www.uniba.sk
Team name: MFF	Team name: Zelovoc svetla
ETH Zürich	Imperial College London
www.ethz.ch	www.imperial.ac.uk
Team name: rETHink	Team name: DoCThors
Innopolis University	Jagiellonian University in Krakow
university.innopolis ru	www.uj.edu.pl
Team name: Innopolis U Known	Team name: Jagiellonian
Lviv National University	Moscow Aviation Institute
franko.lviv.ua	www.mai.ru
Team name: LNU Penguins	Team name: MAI #1
Moscow Engineering Physics Institute	Moscow Institute of Physics & Technology
www.mephi.ru	www.mipt.ru
Team name: MEPhI: Cupcakes	Team name: MIPT: Jinotega
Moscow State University	Nizhny Novgorod State University
msu ru	www.unn.ac ru
Team name: Moscow SU Trinity	Team name: Nizhny Novgorod SU 1
Northern (Arctic) Federal University	Radboud University
narfu ru/en	www.ru.nl
Team name: Northern (Arctic) FU 1	Team name: That empty teamname
Saratov State University	St. Petersburg Academic University
5	www.spbau ru
sgu.ru Team name: Saratov SU Daemons	Team name: SPbAU 1 Generation Z
St. Petersburg ITMO University	St. Petersburg State University
en.ifmo ru	eng.spbu.ru
Team name: SPb ITMO University 1	Team name: SPb SU 1: Base
Taras Shevchenko National University of Kyiv	Universitat Politècnica de Catalunya
www.univ kiev.ua	www.upc.edu
Team name: Flawless	Team name: Twelve seconds
University of Helsinki	University of Warsaw
www.helsinki.fi	www.uw.edu.pl
Team name: Game of Nolife	Team name: Warsaw Eagles 2016
University of Wroclaw	University of Zagreb
www.uni.wroc.pl	www.unizg hr
Team name: UWr1	Team name: Zagreb
Ural Federal University	Utrecht University
www.ustu ru	www.cs.uu nl
Team name: Ural FU: Dandelion	Team name: Curiously recurring
Zaporizhzhya National Technical University	
zntu.edu.ua	
Team name: ZNTU SetUp	
r	

## Latin America

Escuela Superior De Computo Instituto	Instituto Tecnológico Autónomo de México
Politecnico Nacional	www.itam mx
www.escom.ipn mx	Team name: Los Románticos
Team name: La Carabina del AC	
ITESM Campus Monterrey	Universidad de Buenos Aires – FCEN
www.mty.itesm mx	exactas.uba.ar
Team name: HaKings	Team name: PUMMAS
Universidad de Chile	Universidad de La Habana
www.dcc.uchile.cl	www.uh.cu
Team name: Squash Masters	Team name: UH REFRESH
Universidad de los Andes, Colombia	Universidad de Oriente - Sede Antonio Maceo
www.uniandes.edu.co	www.uo.edu.cu
Team name: Programators Mark II	Team name: Conquer & Divide
Universidade de São Paulo	Universidade de São Paulo - Campus de São Carlos
www.usp.br	www.icmc.usp.br
Team name: Sua mãe	Team name: Bob
Universidade Estadual de Campinas	Universidade Federal da Bahia
www.ic.unicamp.br	www.ufba.br
Team name: BibleThump	Team name: ROBÉRIO E SEUS TECLADOS
Universidade Federal de Campina Grande	Universidade Federal de Pernambuco
www.dsc.ufcg.edu.br	www.cin.ufpe.br
Team name: Abella e as feras	Team name: Turing-indecisos
Universidad Nacional de Colombia – Bogotá	Universidad Nacional de Ingeniería – FIIS
www.unal.edu.co	www.fiis.uni.edu.pe
Team name: UNDynamic	Team name: 1000KB
Universidad Nacional de Rosario	Universidad Simón Bolívar
www.unr.edu.ar	www.usb.ve
Team name: Caloventor en Dos	Team name: RAM

# North America

California Institute of Technology	Carnegie Mellon University
www.caltech.edu	www.cmu.edu
Team name: Kiss a Wookiee	Team name: CMU1
Cornell University	Harvard University
www.cornell.edu	www.harvard.edu
Team name: snoopy fan club	Team name: Harvard
Illinois Institute of Technology	Iowa State University
www.iit.edu	www.iastate.edu
Team name: Illinois Tech	Team name: Freelancers
Massachusetts Institute of Technology	Ohio State University
web mit.edu	www.osu.edu
Team name: MIT ZERO	Team name: Future Gazer
Rice University	South Dakota School of Mines and Technology
www.rice.edu	www.sdsmt.edu
Team name: Rice Gray	Team name: SDSMT Hardrockers
Stanford University	The University of South Dakota
www.stanford.edu	www.usd.edu
Team name: Stanford Cardinal	Team name: USD A
University of British Columbia	University of California at Berkeley
www.ubc.ca	www.berkeley.edu
Team name: UBC+	Team name: Berkeley Blue
University of Central Florida	University of Chicago
www.ucf.edu	www.cs.uchicago.edu
Team name: UCF Knights	Team name: Sufficiently Advanced Tech
University of Illinois at Urbana-Champaign	University of Minnesota - Twin Cities
illinois.edu	www.umn.edu
Team name: Poor Man's Shield	Team name: Benchwarmers
University of North Carolina at Chapel Hill	University of Southern California
www.cs.unc.edu	www.usc.edu
Team name: Dayton Goliath Trees	Team name: USC Trojans
University of Utah	University of Virginia
www.utah.edu	acm.cs.virginia.edu
Team name: Uncompilables	Team name: foo
University of Waterloo	University of Wisconsin – Madison
www.uwaterloo.ca	www.wisc.edu
Team name: Waterloo Black	Team name: SmileDog
Virginia Tech	<b>~</b>
www.cs.vt.edu	
Team name: Java the Hutt	

## South Pacific

The University of Western Australia	University of New South Wales
www.uwa.edu.au	www.cse.unsw.edu.au
Team name: Off By Wonders	Team name: TheNorthernLine