The 2017 ACM-ICPC Asia Tsukuba Regional Contest

Contest Program

Hosted by Tsukuba Gakuin University, Japan
During December 16-18, 2017

Welcome to the 2017 ACM-ICPC Asia Tsukuba Regional Contest

The ACM International Collegiate Programming Contest (ICPC) is a competitive programming competition of the universities of the world operating under the auspices of ACM and the headquarters at Baylor University. The ICPC traces its roots to a competition held in 1977. It has provided gifted students with opportunities to interact with students from other universities and to sharpen and demonstrate their problem-solving, programming and teamwork skills.

In the contests, each team of three students is provided with one computer and given 3-5 hours to solve 8-10 problems. They compete for the privilege of advancing to the ICPC World Finals. Last year's ICPC regional participation included 46,381 students from 2,948 universities in 103 countries. The winning 133 teams from each regional contest advanced to the World Finals held in Rapid City, South Dakota, USA, during May 20-25, 2017.

This year in Japan, 1173 students from 93 universities competed in Asia Japan Online First-Round Contest on July 14, 2017. The winning 43 teams advanced to the 2017 ACM-ICPC Asia Tsukuba Regional Contest during December 16-18, 2017. The further winning teams will advance to the ACM-ICPC World Finals 2018 in Beijing, China, during April 15-20, 2018.

The 2017 ACM-ICPC Asia Tsukuba Regional Contest was organized by Tsukuba Gakuin University in collaboration with the Organizing Committee of the ACM-ICPC Asia Tsukuba Regional Contest and International Information Science Foundation. We would firstly like to express our gratitude to Prof. Kiyoshi Ishihata at Meiji University for managing the judge team and preparing the contest problems, and The ICPC 'Secretaries' Team provided high-quality technical support and service. We would also like to gratitude the support of Dr. Yutaka Watanabe at the University of Aizu to offer the online judge system for an Online Open Contest in conjunction. In addition, many people contributed to the success of the contest to whom we would like to extend our sincere gratitude. The contest also received generous sponsorships from the many industrials. The same as last year, we got special supports from NTT Communications Corporation to provide high-quality network in the contest area. The members of the ICPC secretary provided invaluable help in the process of developing the conference program.

We finally wish to extend our heartfelt thanks to all contestants, coaches and directors who participated in the Asia Japan Online First-Round Contest and the 2017 ACM-ICPC Asia Tsukuba Regional Contest. In the Regional Contest, we would like to extend a warm welcome to the challengers from foreign countries. We hope all the attendees enjoy the contest and your stay in Tsukuba.

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Kiyomi Takato
Regional Contest Director
The 2017 ACM-ICPC Asia Tsukuba Regional Contest

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The 2017 ACM-ICPC Asia Tsukuba Regional Contest

Dec. 16 -18, 2017 at Tsukuba Capio

Organized by	- The 2017 ACM-ICPC Asia Tsukuba Regional Contest Organizing Committee
	- International Information Science Foundation (IISF)
	- Tsukuba Gakuin University (TSGU)
	- Ibaraki Prefectural Government
	- The City of Tsukuba
Supported by	- Ministry of Education, Culture, Sports, Science and Technology (MEXT)
	- Ministry of Economy, Trade and Industry (METI)
	- Ministry of Internal Affairs and Communications (MIC)
	- Japan Science and Technology Agency (JST)
	- Japan Information Technology Services Industry Association (JISA)
	- Information Processing Society of Japan (IPSJ)
	- Japan Society for Software Science and Technology (JSSST)
ICPC Event Sponsor	- ICPC. Foundation
	- JetBrains
Industrial Sponsorship	- LINE Corporation
	- Preferred Networks, Inc.
	- Recruit Holdings Co., Ltd.
	- Akatsuki Inc.
	- DWANGO Co., Ltd.
	- e-Seikatsu Co., Ltd.
	- Fixstars Corporation
	- freee K.K.
	- Google Japan G.K.
	- IBM Japan, Ltd.
	- KLab Inc.
	- Light Transport Entertainment Inc.
	- MUJIN, Inc.
	- NTT Communications Corporation
	- RecoChoku Co., Ltd.
	- Retrieva, Inc.
	- Tata Consultancy Services Japan, Ltd.
	- Yahoo Japan Corporation

Organizers

Executive Director	Chikako Oshima (Tsukuba Gakuin University)
Director	Kiyomi Takato (Tsukuba Gakuin University)
Chief Judge	Kiyoshi Ishihata (Meiji University)
Organizing Committee Members	Makoto Akihiro (Tsukuba Gakuin University) Hiroyuki Edo (Tsukuba Gakuin University) Kazuhiro Ehara (Tsukuba Gakuin University) Mariko Horikoshi (Tsukuba Gakuin University) Robert Juppe (Tsukuba Gakuin University) Tomoko Nariai (Tsukuba Gakuin University) Kazuo Yamanoi (Tsukuba Gakuin University) Kazuhiro Yamashima (Tsukuba Gakuin University) Claus Aranha (University of Tsukuba) Katsuhiko Kakehi (IISF, Waseda University) Rie Shigetomi Yamaguchi (The University of Tokyo)
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	Tadakatsu Masaki (National Institute of Technology)
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	Atsushi Nunome (Kyoto Institute of Technology)
	Wataru Ohyama (Mie University)
	Kenya Sato (Doshisha University)
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	Shingo Takada (Keio University)
	Haruaki Tamada (Kyoto Sangyo University)
	Hisao Tamaki (Meiji University)
	Nari Tanabe (Tokyo University of Science, Suwa)
	Seiichi Tani (Nihon University)
	Takehiro Tazoe (Suzuka National College of Technology)
	Hiroyuki Tominaga (Kagawa University)
	Akira Uejima (Okayama University of Science)
	Toshiyuki Uto (Ehime University)
	Hironori Washizaki (Waseda University)
	Takuo Watanabe (Tokyo Institute of Technology)
	Yutaka Watanobe (The University of Aizu)
	Masaharu Yoshioka (Hokkaido University)
	Michifumi Yoshioka (Osaka Prefecture University)
ICPC Secretaries	Rie Shigetomi Yamaguchi (ICPC Secretaries Chair)
	Hidehiko Abe
	Yuichiro Hanada
	Takuya Hashimoto
	Tatsuki Higashi
	Kentaro Imajo
	Takashi Imamichi
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Contest Information

The 2017 ACM-ICPC Asia Tsukuba Regional Contest
  https://icpc.iisf.or.jp/2017-tsukuba/

ACM-ICPC Japan Site
  https://icpc.iisf.or.jp/

Timetable

December 16 (Saturday)

10:40 – 14:40	Excursion (JAXA Tour)
14:40 – 15:40	Registration (Tsukuba Capio Arena)
15:40 – 17:40	Opening and Practice Session (Tsukuba Capio Arena)
18:00 – 20:00	Welcome Party (Gourmont at Tsukuba Gakuin University)

December 17 (Sunday)

08:40 – 09:10	Registration (Tsukuba Capio Arena)
09:30 – 14:30	Asia Regional Contest (Tsukuba Capio Arena)
15:00 – 16:00	Commentaries on Problems (Tsukuba Capio Hall)
16:00 – 17:20	Awarding Ceremony (Tsukuba Capio Hall)
17:30－19:30	Banquet (Tsukuba Capio Arena)

December 18 (Monday)

10:30 – 16:00	Office Tour

Opening (15:40 – 17:40, Dec. 16)

    Director: Kiyomi Takato (Tsukuba Gakuin University)

    Chair: Rie Yamaguchi (The University of Tokyo)

1. **Message from the Executive Director**
2. **Message from the Director**
3. **Orientation and Practice Session**

Welcome Party (18:00 – 20:00, Dec. 16)

    Chair: Robert Juppe (Tsukuba Gakuin University)

1. **Greetings from Organaizer**
    Chikako Oshima (President, Tsukuba Gakuin University)
2. **Greetings from Industrial Sponsors**
    Kazuma Mikami (Software Engineer Indeed / Recruit Holdings Co., Ltd.)
3. **Team Introduction**

Commentaries on Problems (15:00 – 16:00, Dec. 17)

    Chief Judge: Kiyoshi Ishihata (Meiji University)

Awarding Ceremony (16:00 – 17:20, Dec. 17)

    Chairs: Kazuhiro Ehara (Tsukuba Gakuin University) / Claus Aranha (University of Tsukuba)

1. **Opening Remarks and Greetings**
    Katsuhiko Kakehi (Chairman, International Information Science Foundation)
    Chikako Oshima (President, Tsukuba Gakuin University)
    Kazuhiro Yaguchi (Ibaraki Prefectural Government)
    Masataka Kambe (City of Tsukuba)
2. **Greetings from Industrial Sponsors**
    Shinichiro Isago (Development Center 1 Developer Relations Team Manager,
           LINE Corporation)
    Toru Nishikawa (CEO, Preferred Networks, Inc.)
    Osamu Koga (Software Engineer Indeed / Recruit Holdings Co., Ltd.)
    Toshihiro Shimizu (Software Engineer and Head of Human Resource Department,
           DWANGO Co., Ltd.)
3. **Self-introductions from Silver Sponsors**
4. **Distinguished Service Award**
5. **Results and Awards**
    Announcement of Results and Awards
    Prizes from Ibaraki Prefecture Governor
    Prizes from the Mayor of Tsukuba
    Prize from the President of Tsukuba Gakuin University
    Prizes from Platina and Gold Sponsors

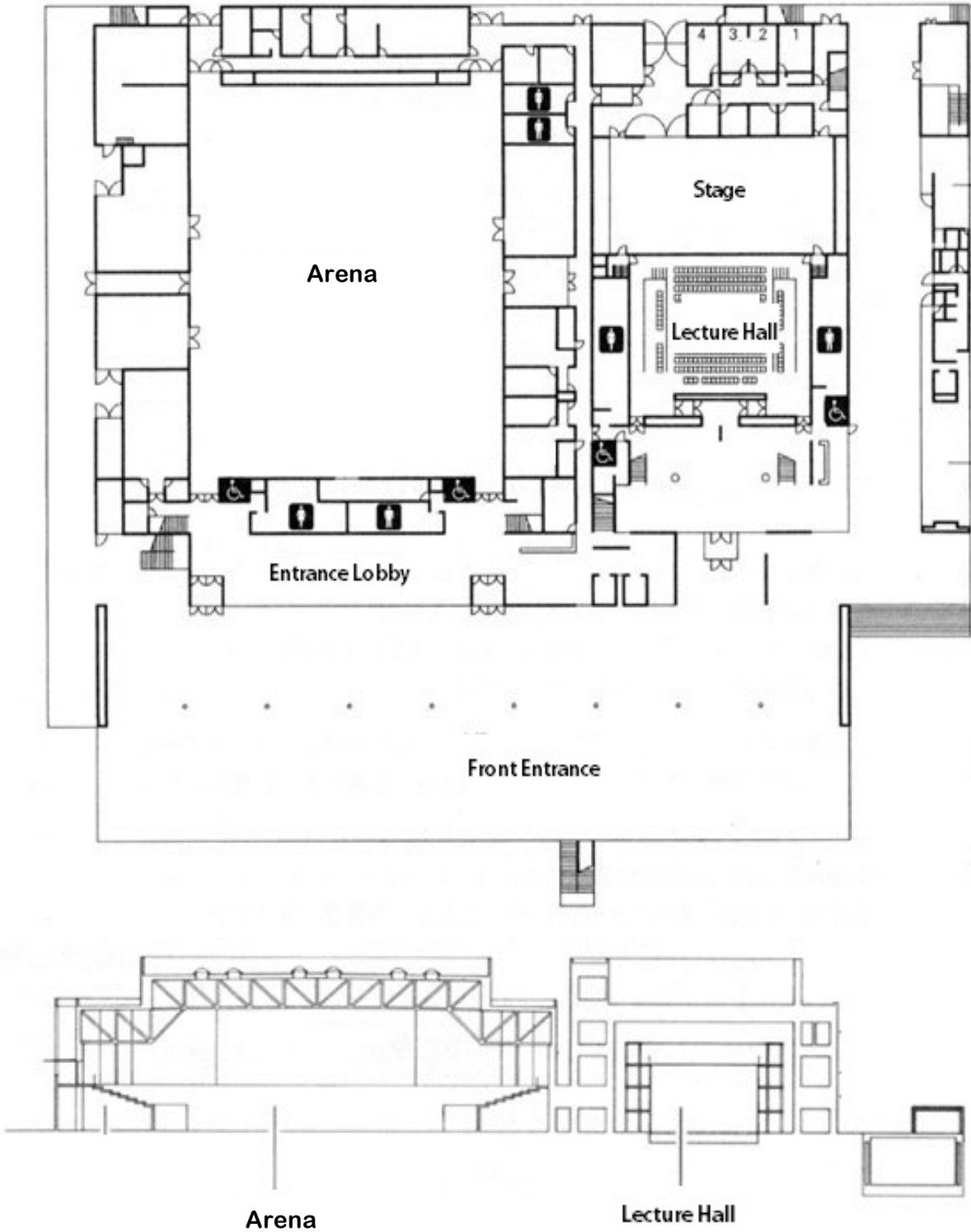**Banquet** (17:30 – 19:30, Dec. 17)

    Chair: Kazuhiro Ehara (Tsukuba Gakuin University)

1. **Opening Remark and Toast**
    Kiyomi Takato (Tsukuba Gakuin University)
2. **Sponsors' Prizes**
    Prizes from Industrial Sponsors
3. **Closing**

Tsukuba Capio

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Arena

Lecture Hall

Competing Teams

Institution	Team
Future University - Hakodate	takuan2
Harbin Institute of Technology	Atomu
Hokkaido University	four-t
KAIST	We1c0me_KA1ST
Keio University	peryaudo
Kobe University	Super-Srups
Kobe University	TEAM NAGATO
Kyoto University	JoisnDragon
Kyoto University	KazumaDragon
Kyoto University	PrimeDragon
Kyushu University	yellow_jam
Mie University	n cat
Nagoya Institute of Technology	_-_-hiro-_-_
Nagoya University	tebanaka
Nara Institute of Science and Technology	sparsely_populated_regions
National Chiao Tung University	NCTU_Valkyrie
National Institute of Technology, Kurume College	lamaltetta
National Institute of Technology, Matsue College	FreedomLife
National Taiwan University	JAW
Niigata University	moyat
Osaka University	kiwidenamida
Osaka University	nasubidenamida
Peking University	Ryusei
Ritsumeikan University	SIMnit
Saitama University	Maximum-omake
Seoul National University	MolaMola
Shinshu University	CroCoDile
Shizuoka University	furu-tu
Singapore Management University	SMURFS
The University of Electro-Communications	nishiyon NO DANPEN
The University of Tokyo	Cxiv-Dxiv
The University of Tokyo	Isplpl
The University of Tokyo	shuriken
The University of Tokyo	sleep 18000
Tohoku University	yayachanz
Tokyo Denki University	CPS Agents

Tokyo Institute of Technology	IQ1
Tokyo Institute of Technology	kurukuru-sushi
Tokyo Institute of Technology	ninjaribaton
Tokyo University of Agriculture and Technology	nocow
Toyohashi University of Technology	Soleil
University of Aizu	Return_ZUKKY
University of Aizu	UKUNICHIA
University of Hyogo	enld_in_mian
University of Tsukuba	5000-cho-en
University of Tsukuba	shohachiro
University of Yamanashi	ComRi4s
Waseda University	SyntaxSato
Waseda University	Up to you
Yokohama National University	DDCEast