2016 CAD CONTEST AT ICCAD

OVERVIEW AND AWARD CEREMONY

HTTP://CAD-CONTEST-2016.EL.CYCU.EDU.TW/CAD-CONTEST-AT-ICCAD2016/INDEX.HTML

CONTEST CHAIRS

Shih-Hsu Huang
Chung Yuan
Christian University
Taiwan

Rung-Bin Lin
Yuan Ze University
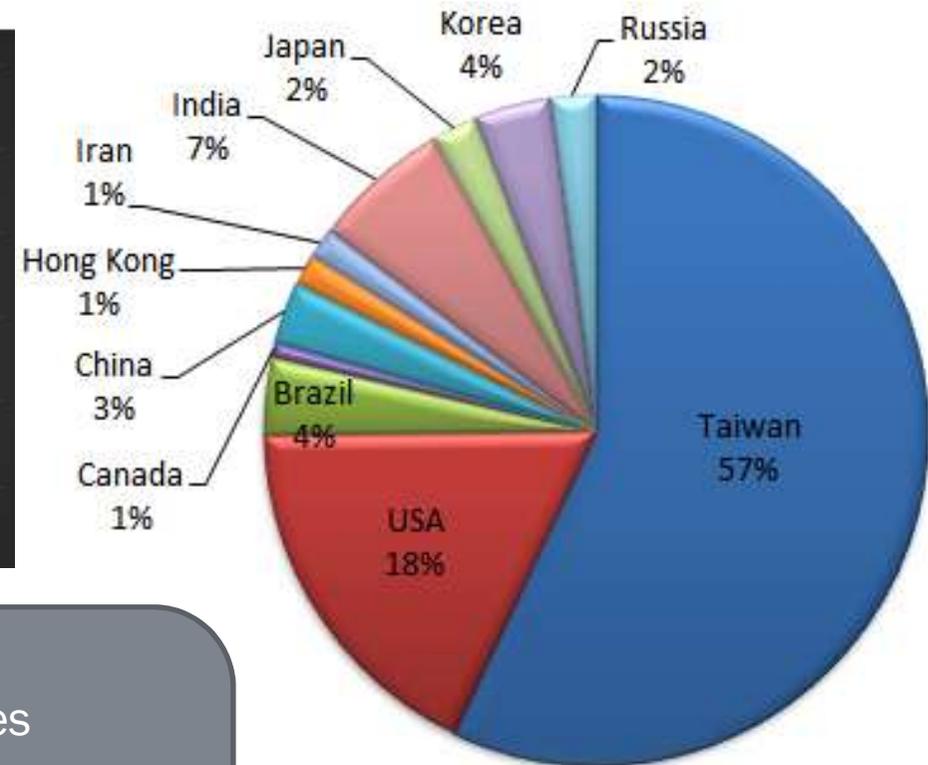Taiwan

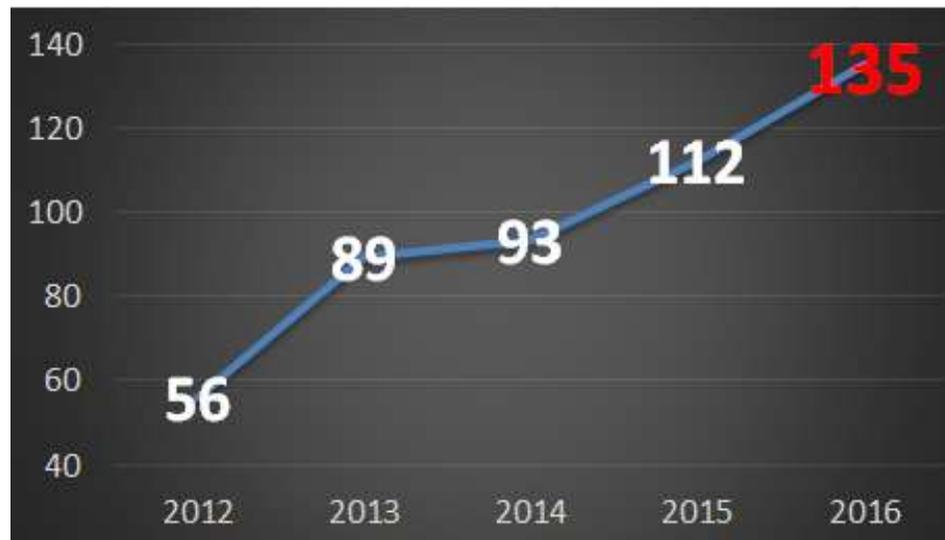**Myung-Chul Kim**
IBM Corporation
USA

Shigetoshi Nakatake
The University of
Kitakyushu
Japan

Special thanks to **Ms. Satine Chen**, CYCU, for administrative support throughout the contest

CAD CONTEST AT ICCAD

- 2016 Contest – 5th edition of the CAD contest at ICCAD
- Largest worldwide EDA research and development contest
- Goal
  - Boost EDA research in advanced real-world problems
  - Foster industry-academia collaboration
- Highlights
  - Multi-month (Feb – Sep) research and development competition
  - Three topic areas: Design Verification, Logic Synthesis, and Design for Manufacturing
  - Monetary awards and certificates for the top three teams in each topic area
  - Honorable Mention certificates for the teams that do not enter the top three but still have good results

REGISTRATION STATISTICS

2016 CAD Contest at ICCAD
135 teams from 11 regions/countries
317 students and 62 professors

- Asia: Taiwan, Mainland China, Hong Kong, India, Iran, Japan, Korea
- North America: Canada, USA
- South America: Brazil
- Europe: Russian Federation

2016 Contest Break-up

IMPACT TO EDA RESEARCH

- 2012 CAD Contest Citations
  - DAC: 6, ICCAD: 1, ISPD: 1
  - Total: 35

- 2013 CAD Contest Citations
  - DAC: 2, ICCAD: 2
  - Total: 25

- 2014 CAD Contest Citations
  - DAC: 2, ICCAD:3, ISPD: 2
  - Total: 23

- 2015 CAD Contest Citations
  - DAC: 2, ICCAD: 1
  - Total: 12

And more in the future …

2016 CONTEST PROBLEMS

Contributor(s) / Topic Chairs	Topic (area)
• Tien-Chun (Tangent) Wei, Synopsys Taiwan Co., Ltd. • Kuo-Ching (Luke) Lin, Synopsys Taiwan Co., Ltd.	Identical Fault Search (Design Verification)
• Rocky Chi-An Wu, Cadence Taiwan, Inc. • Chih-Jen (Jacky) Hsu, Cadence Taiwan, Inc.	NP3: Non-exact Projective NPNP Boolean Matching (Logic Synthesis)
• Rasit O. Topaloglu, IBM Corporation	Pattern Classification for Integrated Circuit Design Space Analysis (Design for Manufacturing)

TIMELINE

- Contest begins   Feb 1, 2016
- Registration deadline   May 25, 2016
- Alpha submission   Jun 23, 2016
- Beta submission   Jul 27, 2016
- Final submission   Sep 7, 2016
- Announce top X teams   Sep 26, 2016
- Top 3 teams and Award ceremony   Nov 7, 2016 (ICCAD)

Release best results after alpha/beta evaluation to encourage contestants to further improve their results

AWARDS

- Winners receive monetary awards (students only) and certificates

Rank	Award
1st Place One team per topic	1. NTD50,000/team (~ US$1650) 2. Certificate
2nd Place / 3rd Place Two teams per topic	1. NTD30,000/team (~ US$1000) 2. Certificate

2017 CAD CONTEST OUTLOOK

- Plan to release the problems in Jan/Feb

- Academia
  - Problems can serve as ideal course projects
  - Attract and engage new talent in the EDA domain

- Industry
  - We are always on the lookout for new topic areas/problems
  - Advanced real-world benchmarks
  - Dedicated and enthusiastic topic chair(s)!

ANNOUNCEMENT

MEET AND GREET WITH TOPIC CHAIRS AND CORPORATE SPONSORS

Participants are requested to attend at the end of this session

We will have a group photo in the front of the platform