



# 2015 CAD CONTEST AT ICCAD

OVERVIEW AND AWARD CEREMONY

[HTTP://CAD-CONTEST.EL.CYCU.EDU.TW/CAD-CONTEST-AT-ICCAD2015/](http://CAD-CONTEST.EL.CYCU.EDU.TW/CAD-CONTEST-AT-ICCAD2015/)



**NAR Labs** 國家實驗研究院  
國家晶片系統設計中心  
National Chip Implementation Center



# CONTEST CHAIRS



**Natarajan Viswanathan**  
IBM Corporation  
USA



**Shih-Hsu Huang**  
Chung Yuan Christian  
University  
Taiwan



**Rung-Bin Lin**  
Yuan Ze University  
Taiwan



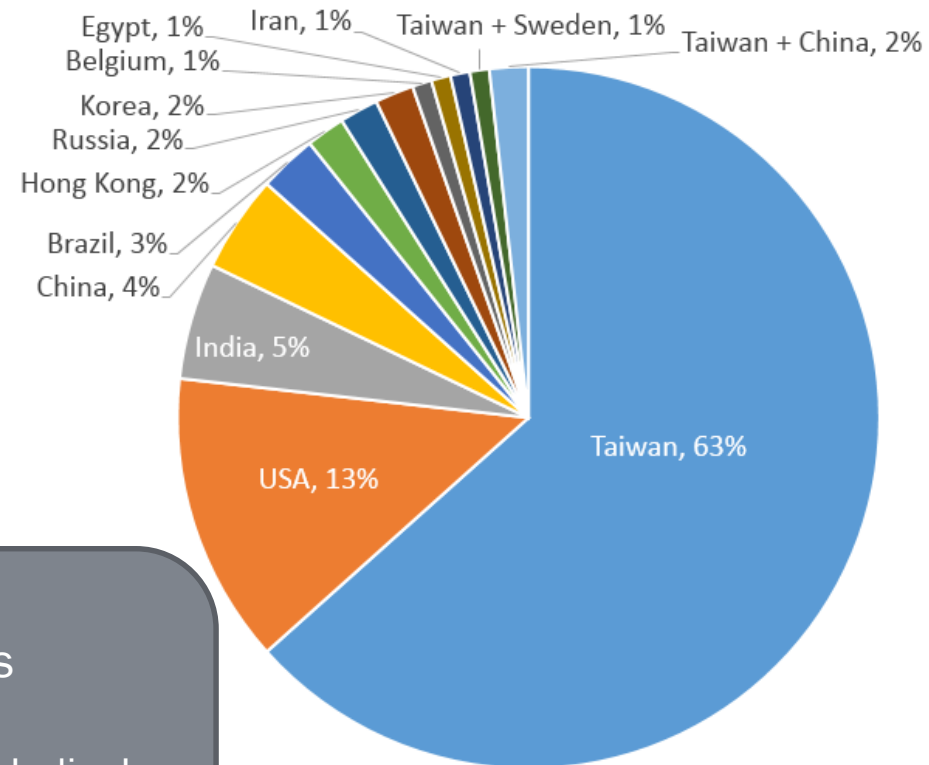
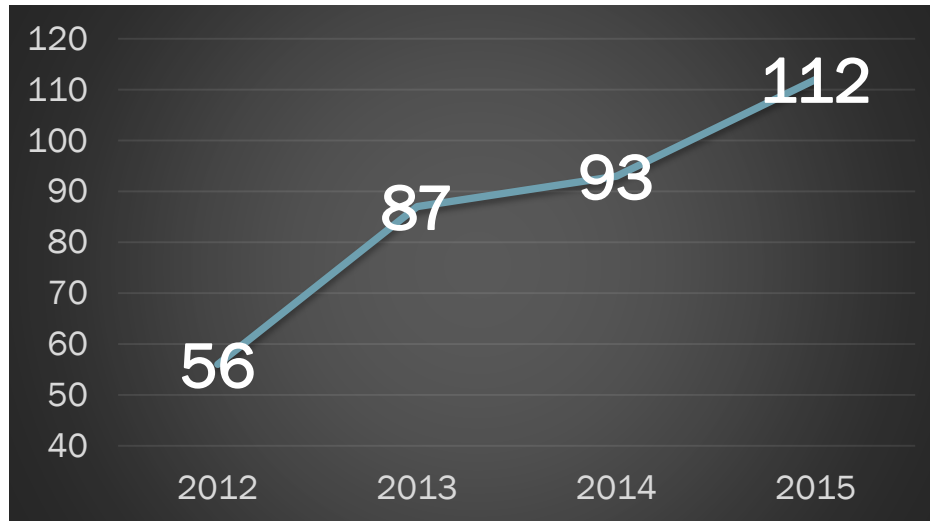
**Myung-Chul Kim**  
IBM Corporation  
USA

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

# CAD CONTEST AT ICCAD

- 2015 Contest – 4<sup>th</sup> 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: System Level Design, Logic Synthesis & Verification, and Physical Design
  - Monetary awards and certificates for the top three teams in each topic area

# REGISTRATION STATISTICS



**2015 Contest Break-up**

## 2015 CAD Contest at ICCAD

112 teams from 12 regions/countries

247 students and 60 professors

- Asia: Taiwan, Mainland China, Hong Kong, Korea, India, Iran
- North America: USA
- South America: Brazil
- Europe: Belgium, Sweden, Russia
- Africa: Egypt

# IMPACT TO EDA RESEARCH

- **2012 CAD Contest Citations**
  - DAC: 6, ICCAD: 1, ISPD: 1
  - Total: 22
  
- **2013 CAD Contest Citations**
  - DAC: 2, ICCAD: 2
  - Total: 10
  
- **2014 CAD Contest Citations**
  - DAC: 2, ISPD: 2
  - Total: 6

**And more in the future ...**

# 2015 CONTEST PROBLEMS

Contributor(s) / Topic Chairs	Topic (area)
<ul style="list-style-type: none"> <li>• Mohamed M. Sabry, Stanford University</li> <li>• Arvind Sridhar, IBM Research</li> <li>• David Atienza, ESL-EPFL</li> </ul>	3D-ICON: 3D Interlayer Cooling Optimized Network (System Level Design)
<ul style="list-style-type: none"> <li>• Chih-Jen (Jacky) Hsu, Cadence Taiwan, Inc.</li> </ul>	Large-Scale Equivalence Checking and Function Correction (Logic Synthesis & Verification)
<ul style="list-style-type: none"> <li>• Myung-Chul Kim, IBM Systems</li> <li>• Jin Hu, IBM Systems</li> </ul>	Incremental Timing-Driven Placement (Physical Design)

# TIMELINE

- Contest begins Feb 12, 2015
- Registration deadline May 24, 2015
- Alpha submission Jun 24, 2015
- Beta submission Jul 28, 2015
- Extra submission Aug 20, 2015
- Final submission Sep 10, 2015
- Announce top 10 teams Sep 24, 2015
- Top 3 teams and award ceremony Nov 2, 2015 (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
<p>1<sup>st</sup> Place One team per topic</p>	<ol style="list-style-type: none"> <li>NTD50,000/team (~ US\$1650)</li> <li>Certificate</li> </ol>
<p>2<sup>nd</sup> Place / 3<sup>rd</sup> Place Two teams per topic</p>	<ol style="list-style-type: none"> <li>NTD30,000/team (~ US\$1000)</li> <li>Certificate</li> </ol>



# 2016 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 OUTSIDE SESSION ROOM

Participants are requested to attend at the end of this session