
Beyond AlphaGo

SYMPOSIUM PROGRAM

Instructible Social Robots
Matthias Scheutz
Director, Human-Robot Interaction Laboratory
Tufts University

Robot Intelligence vs Biological Intelligence
Aaron Sloman
Honorary Professor, Artificial Intelligence and Cognitive Science
University of Birmingham

Natural and Artificial Intelligence
Klaus Mainzer
Professor Emeritus, Philosophy and Philosophy of Science
Technische Universität München

Digital Companions for Seamless Co-Creation
Andreas Dengel
Scientific Director, Knowledge Management Department
German Research Center for Artificial Intelligence (DFKI)

A Bayesian Perspective of Intelligence
Hiromi Asai
Senior Research Scientist, Artificial Intelligence Research Center (AIRC), AIST, Japan

DATE & LOCATION
October 27–28, 2016
aT Center, Seoul, Korea
Seocho-gu Gangnam-daero 27, Seoul

REGISTER ONLINE
http://www.kiise.or.kr/pacs/2016/
Early Bird Registration by October 13, 2016

SUBMIT FOR POSTER SESSION
https://easychair.org/conferences/?conf=pacs2016
Abstracts Submission by September 30, 2016

ORGANIZERS
Hosted by Korea Ministry of Science, ICT, and Future Planning
Sponsored by Korean Institute of Information Scientists and Engineers
The International Symposium on Perception, Action, and Cognitive Systems (PACS) is a premier venue for science and engineering for embodied cognitive systems – natural and artificial - that sense, act, feel, think, reason, communicate, learn and evolve in real-world environments. The fundamental significance of embodied cognitive systems has long been recognized in science, but its industrial importance has realized only recently with new technologies such as the Internet of things, mixed reality, wearable devices, personal robots, and autonomous cars. The goal of PACS is to bring international researchers from academia and industry together to present recent progresses and discuss new frontiers in interdisciplinary research and technology for embodied cognitive systems. The topics of PACS cover on the following (not exhaustive):

- Action Science
- Anticipatory Systems
- Artificial Intelligence
- Augmented Cognition
- Autonomous Learning
- Brain-like Systems
- Cognitive Architectures
- Cognitive Robots
- Complex Adaptive Systems
- Conversational Agents
- Cyber-Physical Systems
- Embodied Cognition
- Emotion Machines
- Haptic Interfaces
- Human-Robot Interaction
- Human-Level AI
- Intelligence Augmentation
- Internet of Things
- Machine Cognition
- Mind Machines
- Perceptual Computing
- Personal Robots
- Self-aware Systems
- Smart Machines
- Wearable Agents

Hosted by Korea Ministry of Science, ICT, and Future Planning
Sponsored by Korean Institute of Information Scientists and Engineers (KIISE)
Patrons (the): Institute for Information and Communications Technology Promotion, ETRI, Samsung, LG, SK Telecom, Naver, Doosan, POSCO, Google Korea, Microsoft Korea, Qualcomm Korea, Nvidia Korea, Robotis, Yujin Robot, Future Robot, Surromind Robotics, Seoul National University Institute of Cognitive Science, Cognitive Robotics and Artificial Intelligence Center, Yonsei Cognitive Engineering Square, Mirae Asset Financial Group, Shinhan Financial Group, KB Financial Group, Deloitte
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 - 09:15</td>
<td>Registration</td>
</tr>
<tr>
<td>09:15 - 09:30</td>
<td>Welcome and Introduction</td>
</tr>
<tr>
<td></td>
<td>Byoung-Tak Zhang, Program Co-Chair</td>
</tr>
<tr>
<td></td>
<td>Choong Seon Hong, General Co-Chair &amp; President of KIISE</td>
</tr>
<tr>
<td></td>
<td>Yong-Soo Kim, Ministry of Science, ICT, and Future Planning</td>
</tr>
<tr>
<td>09:30 - 11:30</td>
<td>Instructible Social Robots</td>
</tr>
<tr>
<td></td>
<td>Matthias Scheutz</td>
</tr>
<tr>
<td></td>
<td>Director, Human-Robot Interaction Laboratory</td>
</tr>
<tr>
<td></td>
<td>Tufts University</td>
</tr>
<tr>
<td>11:30 - 13:00</td>
<td>Lunch &amp; Poster Session 1</td>
</tr>
<tr>
<td>13:00 - 15:00</td>
<td>Robot Intelligence vs Biological Intelligence</td>
</tr>
<tr>
<td></td>
<td>Aaron Sloman</td>
</tr>
<tr>
<td></td>
<td>Honary Professor, Artificial Intelligence and Cognitive Science</td>
</tr>
<tr>
<td></td>
<td>University of Birmingham</td>
</tr>
<tr>
<td>15:00 - 15:30</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>15:30 – 17:30</td>
<td>Natural and Artificial Intelligence:</td>
</tr>
<tr>
<td></td>
<td>Towards Neuromorphic Computational Systems</td>
</tr>
<tr>
<td></td>
<td>Klaus Mainzer</td>
</tr>
<tr>
<td></td>
<td>Professor Emeritus, Philosophy and Philosophy of Science</td>
</tr>
<tr>
<td></td>
<td>Technische Universität München</td>
</tr>
<tr>
<td>17:30 – 20:00</td>
<td>Reception &amp; Poster Session 2</td>
</tr>
</tbody>
</table>

Day 2: Friday, October 28

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30 - 11:30</td>
<td>Digital Companions for Seamless Co-Creation</td>
</tr>
<tr>
<td></td>
<td>Andreas Dengel</td>
</tr>
<tr>
<td></td>
<td>Scientific Director, Knowledge Management Department</td>
</tr>
<tr>
<td></td>
<td>German Research Center for Artificial Intelligence (DFKI)</td>
</tr>
<tr>
<td>11:30 - 13:00</td>
<td>Lunch &amp; Poster Session 3</td>
</tr>
<tr>
<td>13:00 - 15:00</td>
<td>A Bayesian Perspective of Intelligence</td>
</tr>
<tr>
<td></td>
<td>Hideki Asoh</td>
</tr>
<tr>
<td></td>
<td>Senior Research Scientist, Artificial Intelligence Research Center(AIRC), AIST, Japan</td>
</tr>
<tr>
<td>15:00 - 15:30</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>15:30 - 17:30</td>
<td>New Frontiers of Cognitive Systems (Panel Discussion)</td>
</tr>
<tr>
<td></td>
<td>Byoung-Tak Zhang (Moderator)</td>
</tr>
<tr>
<td></td>
<td>Matthias Scheutz</td>
</tr>
<tr>
<td></td>
<td>Aaron Sloman</td>
</tr>
<tr>
<td></td>
<td>Klaus Mainzer</td>
</tr>
<tr>
<td></td>
<td>Andreas Dengel</td>
</tr>
<tr>
<td></td>
<td>Hideki Asoh</td>
</tr>
<tr>
<td>17:30 – 18:00</td>
<td>Award &amp; Farewell</td>
</tr>
</tbody>
</table>
Advisory Committee
- Chungmin Lee (SNU)
- Soo-Young Lee (KAIST)
- Jin-Hyung Kim (AIRI)
- Tomas Poggio (MIT)
- Il-Hong Suh (Hanyang Univ.)
- Ipke Wachsmuth (CITEC)
- Wolfgang Wahlster (DFKI)

General Co-Chairs
- Choong Seon Hong (KIISE & Kyung Hee Univ.)
- Klaus Mainzer (TU Munich)

Program Committee
Co-Chairs
- Andreas Dengel (DFKI)
- Byoung-Tak Zhang (SNU)

Members
- Seong-Bae Cho (Yonsei)
- Byung-Wook Chun (HMC)
- Sung Il Chung (Dolotte)
- Dayk Jang (SNU)
- June Hyun Jang (Doelotte)
- Dae-Shik Kim (KAIST)
- Yong-Hwan Kim (LG U+)
- Geun Hwan Kim (LG U+)
- Kang-Yoon Lee (IBM)
- Kyung Il Lee (Saltlux)
- Min Ho Lee (KNU)
- Miran Lee (MSR)
- Sang Hyun Lee (POSCO)
- Te Won Lee (Qualcomm)
- Yong Hoon Lee (Humax)
- Chaeduk Lim (ETRI)
- Myung Soon Park (SK Telecom)
- Sang Kyu Park (ETRI)
- Seong Soo (MSIP)
- Kyung Cheol Shin (Yujin Robot)
- Chang Song (Naver Labs)

Organizing Committee
Co-Chairs
- Bong-Hee Hong (PNU)
- Hideki Asoh (AIRC)
- Kwangsu Cho (Yonsei Univ.)

Members
- Hyo-Chan Bang (ETRI)
- Jae-Shik Choi (UNIST)
- Jung-Hwan Choi (KIA)
- Jung-Hyun Han (Korea Univ.)
- Young-Jin Hong (KIRO)
- Jun Soo Jun (NIPA)
- Anna Kang (Dankook Univ.)
- Dong Ho Kim (Soongsil Univ.)
- Hong Gi Kim (SNU)
- Yoo Seob Kim (Hallim Univ.)
- Joong Shik Lee (SNU)
- Alice Oh (KAIST)
- Hyuck Ro Park (CNU)
- Seong Ki Park (KIST)
- Seong Bae Park (KNU)
- Myung Sook Yeo (Postech)
- Sung Youn Kim (KUTE)
- Seungmoon Choi (Postech)
- Min Seok Kim (KRISS)

Poster Session Co-Chairs
- Soo Yong Shin (Kyung Hee Univ.)
- Woon Taek Woo (KAIST)

Publication Chair
- Je Kwang Ryu (SNU)

Publicity Co-Chairs
- Dennis Hong (UCLA)
- Seong Whan Lee (Korea Univ.)
- Soo Hwa Lee (NACSI)
- Byung gyu Kim (Sookmyung)
- Andrea Thomaz (Georgia Tech)
- Kee Eung Kim (KAIST)
- Seokhee Jeon (KHU)

Finance Chair
- Sang Goog Lee (Catholic Univ.)

Local Arrangement Chair
- Taikyeong Ted. Jeong (SWU)

Web Chair
- Yung Kyun Noh (SNU)
REGISTRATION
Early Registration Deadline: October 13, 2016

▶ Registration Fee

<table>
<thead>
<tr>
<th></th>
<th>Early Registration(by Oct. 13, 2016)</th>
<th>After the Early Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>KRW 250,000</td>
<td>KRW 300,000</td>
</tr>
<tr>
<td>General</td>
<td>KRW 500,000</td>
<td>KRW 600,000</td>
</tr>
</tbody>
</table>

▶ On-line Registration:
http://www.kiise.or.kr/pacs/2016/

▶ Contact:
Heesoo Choi, +82-2-588-9246 / hschoi@kiise.or.kr

IMPORTANT DATES

▶ Online Poster Submission Open: September 5, 2016
▶ Submission Deadline: September 30, 2016
▶ Notification of Acceptance: October 5, 2016
▶ Early Bird Registration: October 13, 2016

VENUE

aT Center, Seoul, Korea
Seocho-gu Gangnam-daero 27, Seoul
CALL FOR POSTERS
Abstract Submission Deadline: September 30, 2016

▶ Instruction for Poster Preparation

Use IEEE Manuscript Templates for Conference Proceedings:
https://www.ieee.org/conferences_events/conferences/publishing/templates.html

Submitted posters should be in English (Max Pages: 2 Pages)

After acceptance, the poster presentation guideline will be noticed.

Notification of Acceptance: October 5, 2016

▶ Instruction for Submission

All posters must be uploaded by the online submission site. Do not send the poster by email.

Online submission: https://easychair.org/conferences/?conf=pacs2016

All submitted posters will be peer-reviewed by the PACS 2016 committee members.

If the presenting authors of an accepted poster does not register, the poster will be automatically withdrawn from the final program.