

---

# APNNS NEWS

---



*ICONIP 2016 Venue - Kyoto University Clock Tower*

Table of Contents

<b>1. President's message</b>	19
<b>2. Society Structure</b>	20
<b>3. Membership Update</b>	22
3.1 Membership info	22
3.2 Update for 2017	23
<b>4. Election Results</b>	24
<b>5. ICONIP 2016 Kyoto Report</b>	25
5.1 New ICONIP Series Started in Japan's Old Historic City	25
5.2 Technical Program	27
5.3 Awards	28
<b>6. Conferences and Meetings</b>	30
6.1 ICONIP 2017	30
6.2 ICONIP 2018	31
6.3 ICONIP 2019 and beyond	32
6.4 Technically co-sponsored conferences	32

## 1. President's message



### NN, CI or AI?

*Akira Hirose, President, APNNS*

In the last years of Asia-Pacific Neural Network Assembly (APNNA), the governing board members discussed possible names of the forthcoming new society. Eventually we decided to take Asia-Pacific Neural Network Society (APNNS). But actually we had a few alternatives. One includes Computational Intelligence (CI) just like IEEE Computational Intelligence Society. It may be suitable when we expect a wider field than neural networks.

However, we consider that the origin of our activities lies in human beings and the brain, which is also declared in APNNS Bylaws. Then we decided to choose neural networks (NN) to represent the root of the field rather than CI. This idea is probably shared among such societies as INNS, ENNS, JNNS and IEICE Neurocomputing Technical Group.

In the general public, at the same time, people often use Artificial Intelligence (AI) in these days. Mass media use the word AI everyday. AI is also attractive, though it has a long history. Artificial Brain (AB?) is also a word once popular previously.

Before 1940s, future intelligent machine was called Artificial Brain. Afterward in 1980s, AI represented symbol-based machine with symbol database and logic deduction/inference. "Prolog" was a newly developed programming language. Governments conducted many big projects. The fruit, known as Expert System, serves presently in medical diagnosis and other scenes widely. But its principle is very different from that of the brain after all. The brain dynamics are based on pattern representation and pattern processing realized by many neurons to learn correlations among events, and then symbol logic is also realized in addition as a part of its functions. In late 1990s, the symbol-based AI entered its maturity. It newly started to absorb learning dynamics that have been investigated in the field of neural networks, including machine learning, as a significant part of its principle. Today, the learning is rather the essence of AI. In this sense, present AI is New AI, or Neural AI. It's a big success of neural networks.

It is our great pleasure to develop science and technology that makes people happy. APNNS holds an important part to play. The future is surely on the shoulders of you, the society members!

## 2. Society Structure

(same as APNNS News Vol. 1 No. 1 for the benefits of new members)



*Irwin King, VP Administration*

Dear APNNS Members,

After years of planning and discussing, the APNNS EXCO is pleased to share with you a few highlights on the new APNNS structure based on the newly created bylaws. A complete APNNS Bylaws (Version 1.3) is available at <http://www.apnns.org/>.

The original goals for the APNNS' bylaws given to the APNNA Bylaws Task Force were

- To create a new structure based on our already strong APNNA's tradition with consideration with current and future needs of its members
- To reflect the diverse interests from different regional and national technical communities and grow this community together
- To interface with other international societies with similar interests in order to enhance the value of the community

To address these points, the APNNA Bylaws Task Force labored over the bylaws through months of meeting and discussions to ensure that the bylaws is built to last for the uniqueness of the neural network technical communities in the Asia-Pacific region.

One of the cornerstones in the bylaws is the Governing Board structure of APNNS. To illustrate the goal to reflect the diversity and also balance in the Asia-Pacific region, the bylaws set specific guidelines to make up of the two-class Governing Board members with the Elected Governors and Country/Region Governors. The Elected Governors are elected from the general pool of available members. Moreover, the maximum authorized number shall not be more than 12 and the maximum authorized number of Elected Governors for each country/region shall not be more than two. Country/Region Governors shall be recommended by Countries/Regions-at-Large, defined as the countries/regions whose regular members are more than a certain number as specified by the Governing Board. The authorized number of Country/Region Governors for a Country/Region-at-Large shall not be more than one. Lastly, the number of Countries/Regions-at-Large may be varied from time to time by resolution of the Board of Governors, provided that the authorized number of Elected Governors and Country/Region Governors in total shall be around 25. With this new structure, APNNS aims to be inclusive and at the same time sensitive to the various needs of the representations of its members.



The nomination procedures for the Board of Governors and President-elect are through a Nomination Committee (NC). The NC shall nominate a number of candidates for Elected Governors and at least two candidates for the Office of President-elect. Each regular member (not student member) has one vote. Those eligible candidates for Elected Governors who receive the highest number of votes, up to the number of Elected Governors to be elected, shall be elected as Elected Governors of APNNS. Similarly, the eligible candidate for the Office of President-elect who receives the highest number of votes for such Office shall be elected as President-elect of APNNS.

We have also expanded and further clarified the roles of the APNNS Executive Committee (EXCO), which consists of the President, the President-elect, and four Vice-presidents (VPs), VP of Administration, VP of Finance, VP of Membership, and VP of Conference to oversee the day-to-day operation of APNNS. The President and President-elect shall hold office for the term of one year, starting on January 1 of the year. For 2016, the EXCO consists of Prof. Akira Hirose, President; Prof. Soo-Young Lee, President-elect; Prof. Irwin King, VP of Administration, Prof. Seiichi Ozawa, VP of Finance, Prof. Jonathan Chan, VP of Membership, and Prof. Derong Liu, VP of Conference.

The EXCO would like to thank the Ad Hoc APNNA Bylaws Task Force members: Prof. Akira Hirose (Chair), Prof. Jonathan Chan, Prof. Irwin King, Prof. Minhoo Lee, Prof. Derong Liu, and Prof. Seiichi Ozawa for their significant commitment and efforts in making the APNNS Bylaws a reality. I would also like to thank the APNNA and APNNS Governing Board Members for their continuing support to seeing the process to its fruition.

It is our hope and belief that with the new structure, APNNS will continue to foster strong supports from its members of diverse communities to expand and develop successfully the field of neural networks, computational intelligence, and other related fields in the years to come.



*Figure 2.1* APNNS Executive Committee (EXCO) starting members.

### 3. Membership Update



*Jonathan Chan, VP Membership*

#### 3.1 Membership info

At the beginning of 2016, APNNS have 215 regular and 25 student members for a total of 240 members. It is with pleasure to inform you that we have since grown to 265 regular members who were eligible to vote in the 2016 APNNS Elections.

In 2016, we have 9 countries/regions and their breakdown based on regular membership (eligible voters) and representative governors for 2016 are listed below. The order is based on the number of regular members.

- 1) Japan (158 members)
  - Akira Hirose (President 2016)
  - Seiichi Ozawa (Country Governor 2016-2017)
  - Ko Sakai (Transitional Governor 2016)
  - Takashi Omori (Elected Governor 2016-2017)
- 2) China (57 members)
  - Derong Liu (Country Governor 2016-2017)
  - Bao-Liang Lu (Transitional Governor 2016)
  - Huaguang Zhang (Elected Governor 2016-2017)
- 3) Asia Pacific and Greater Regions (9 members)
  - Nikola Kasabov (Region Governor 2016-2017)
- 4) South East Asia (8 members)
  - Kittichai Lavangnananda (Region Governor 2016-2017)
  - Kay Chen Tan (Elected governor 2016-2017)
  - Jonathan Chan (Transitional Governor 2016)
- 5) East Asia (7 members)
  - Soo-Young Lee (President-Elect 2016)
  - Minho Lee (Region governor 2016-2017)
  - Sung Bae Cho (Transitional governor 2016)

- Hye Young Park (Elected governor 2016-2017)
- 6) Hong Kong (7 members)
  - Irwin King (Region Governor 2016-2017)
  - Andrew Leung (Transitional Governor 2016)
  - James Kwok (Elected Governor 2016-2017)
- 7) Middle East (7 members)
  - Sabri Arik (Region Governor 2016-2017)
  - Tingwen Huang (Elected Governor 2016-2017)
- 8) Australia (6 members)
  - Tom Gedeon (Country Governor 2016-2017)
  - Kevin Wong (Transitional Governor 2016)
- 9) Malaysia (6 members)
  - Weng Kin Lai (Country Governor 2016-2017)
  - Chu Kiong Loo (Transitional Governor 2016)

### 3.2 Update for 2017

For 2017, we also have 9 countries/regions with South Korea (5 members) becoming standalone and other members in East Asia joining the Asia Pacific and Greater Region (11 members) instead. The other Countries/Regions remain the same. As such, Asia Pacific and Greater is under-represented with only one Region Governor and no elected ones. We urge greater participation from this growing region in 2017 and beyond.

## 4. Election Results

(Reported by VP Membership on behalf of Election Committee)



*Jonathan Chan, VP Membership*

The following are the APNNS Election Results for 2017. Congratulations to the winners! We welcome new comer Kazushi Ikeda who was the Program Co-Chair for ICONIP 2016 to the Governing Board for 2017.

### *President-Elect 2017*

Derong Liu

### *Elected Governors 2017-18 (6 positions)*

Bao-Liang Lu (China)

Kazushi Ikeda (Japan)

Jonathan H. Chan (South East Asia)

Andrew Leung (Hong Kong)

Kevin Wong (Australia)

Sung-Bae Cho (South Korea)



## 5. ICONIP 2016 Kyoto Report



*Akira Hirose, General Chair ICONIP 2016 Kyoto*

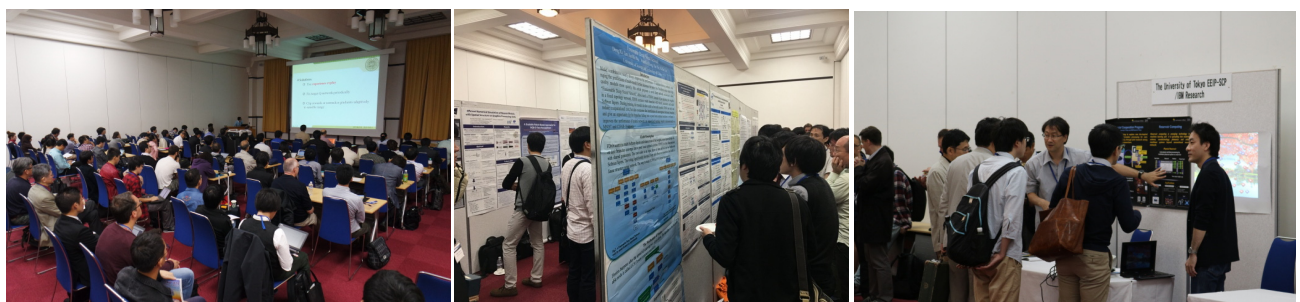
*Seichi Ozawa, Co-General Chair ICONIP 2016 Kyoto*

*Kazushi Ikeda, Program Co-Chair ICONIP 2016 Kyoto*

### 5.1 New ICONIP Series Started in Japan's Old Historic City

The 23rd International Conference on Neural Information Processing (ICONIP 2016, <http://www.iconip2016.org/>) was held in Kyoto, Japan, during October 16-21, 2016. The venue was Kyoto University Clock Tower Centennial Hall, which is located in the north-east area of Kyoto city. Kyoto formerly flourished as the imperial capital of Japan as long as 1,000 years after 794 A.D., and known as “The City of Ten Thousand Shrines.” The new ICONIP series started in such a historic city, which is the deepest heart of Japan.

The Conference received 423 participants from 35 countries/regions including Asia-Pacific ones, such as China, Korea, Hong Kong, Singapore, India, Thailand, Malaysia, Australia, New Zealand, as well as European, Mideast, South & North American and Africa countries (see *Table 5.1*). This time the conference implemented some special events, namely, Free Tutorial Sessions, the Student Paper Award Session, Exhibition and Technical Tours. Each of them attracted many participants and enhanced their discussion on science and technology in the wide fields.



*Fig. 5.1 Student Award Session, Poster session and Exhibition snapshots captured in ICONIP 2016 Kyoto held during October 16 – 21, 2016.*

Table 5.1 The number of participants (including invited speakers) in each country/region.

Argentina	2	Germany	9	Singapore	2
Australia	18	Hong Kong	10	South Africa	1
Austria	1	India	6	South Korea	19
Belgium	2	Italy	1	Spain	2
Brazil	2	Japan	213	Taiwan	2
Brunei	1	Malaysia	9	Thailand	5
Bulgaria	1	Netherlands	1	Tunisia	1
Chile	1	New Zealand	8	UAE	1
China	75	Pakistan	1	UK	5
Fiji	1	Philippines	3	USA	4
Finland	1	Romania	3	Viet Nam	3
France	8	Saudi Arabia	1	<b>TOTAL</b>	<b>423</b>



Fig. 5.2 Banquet and reception snapshots: Presentation of a part of the conference-running staff, Shishi-mai (lion dance) with fortune bites, Tea ceremony with maikos and geikos, Taiko (Japanese drum) jam session, and APNNS Outstanding Achievement Award ceremony.



The Organization Committee members constructed from APNNS and JNNS express sincere gratitude to everyone involved in making the conference successful. We wish to acknowledge the support of all the ICONIP 2016 sponsors and supporters, namely, KDDI, NICT, Ogasawara Foundation, SCAT, as well as Advanced Telecommunications Research Institute International (ATR), Kyoto Prefecture Kyoto Convention and Visitors Bureau, Mitsubishi Electric Co., and Springer Verlag. We also thank deeply the keynote, plenary and invited speakers, exhibitors, student paper award evaluation committee members, special session and workshop organizers, reviewers, authors and all the APNNS members.

## 5.2 Technical Program

The ICONIP 2016 Kyoto Organizing Committee received 431 submissions from 38 countries and regions worldwide. The most popular topic in submission was “machine learning”, 57 papers, and the second most was “deep neural networks”, 37 papers including a special session. These are popular topics not only in Neural Information Processing but Artificial Intelligence.

The submitted papers were reviewed by 156 reviewers and 296 papers were accepted for presentation. The largest presenters by country/resion of first authors were Japn (100), China (78), Australia (22), India (13), Korea (12), France (7), Hong Kong (7), Taiwan (7), Malaysia (6), United Kingdom (6), Germany (5) and New Zealand (5).

The accepted papers were presented in 42 oral sessions as well as 2 poster sessions, including 5 special sessions and 2 workshops. These papers were published in four volumes of Lecture Notes in Computer Science, Springer.

In addition to regular/special sessions and workshops, the conference had 4 plenary talks and 3 tutorials by leading researchers in Machine Learning and Computational Neuroscience as below:

### Plenary Speakers

- Kunihiko Fukushima (Fuzzy Logic Systems Institute, Japan)
- Mitsuo Kawato (ATR, Japan)



*Fig. 5.3 General Chair's address in the Opening Ceremony.*

- Irwin King (The Chinese University of Hong Kong, China)

### **Tutorial Speakers**

- Nikola Kasabov (Auckland University of Technology, N
- Aapo Hyvarinen (University of Helsinki, Finland)
- Okito Yamashita (ATR, Japan)

The final day was devoted to a technical tour to visit ATR (Advanced Telecommunications Research Institute International) in Kyoto, where the attendees visited the following laboratories,

- 1) Development of Brain Robot Interface: Dr. Jun Morimoto
- 2) Department of Neuroinformatics: Prof. Yukiyasu Kamitani
- 3) Department of Dynamic Brain Imaging: Dr. Takayuki Suyama

followed by a visit to Byodoin Shrine and the Fushimi Kizakura Memorial Museum.



*Fig. 5.4 Technical Tour at ATR in Keihanna Kansai Science City.*

## **5.3 Awards**

The ICONIP 2016 Kyoto offered three kinds of awards: Excellent paper

award, best student paper award and student travel grants.

### **Excellent Paper Awards**

The program committee chose 17 candidates based on reviewers' score and program committee members and APNNS governing board members re-evaluated them. According to their scores, 6 papers were awarded.



*Fig. 5.5 Excellent Paper Award Ceremony at the banquet.*

### **Best Student Paper Awards**

The program committee

chose 9 finalists based on reviewers' score and had "Best Student Paper Awards Presentation" session on the first day. Invited leading researchers including plenary speakers and tutorial speakers evaluated their presentation as well as their papers. According to their scores, 4 papers were awarded.

### **Student Travel Grants**

The program committee chose 19 students based on reviewers' score.

The Program Committee Co-Chairs thank all the committee members, reviewers and contributing authors for their great contribution to realize such a high-quality conference.



## 6. Conferences and Meetings



*Derong Liu, VP Conferences*

### 6.1 ICONIP 2017

ICONIP 2017 will be in Guangzhou, China, November 11–14, 2017. Guangzhou, historically known as Canton or Kwangchow, is the capital and largest city of Guangdong province, China. Located on the Pearl River, about 120 km (75 mi) north-northwest of Hong Kong and north-northeast of Macau, Guangzhou is a key national transportation hub and trading port. It is one of the five National Central Cities and holds sub-provincial administrative status.

ICONIP 2017 website is: [www.iconip2017.org](http://www.iconip2017.org)

Please visit the website for most updated information about the conference.

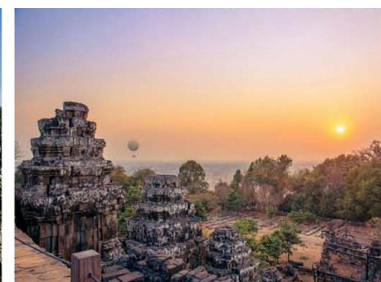




## 6.2 ICONIP 2018

The APNNS board of governors is pleased to announce the location of ICONIP 2018: Siem Reap, Cambodia. It is currently planned in the Regency Angkor Hotel, Siem Reap, Cambodia, November 26–29, 2018. Please mark your calendar.

After the last round of call for proposals, we received several proposals for ICONIP 2018. The board of governors decided to go with the proposal from Cambodia, chaired by Professor Jun Wang. We look forward to a successful gathering in Cambodia, in 2018.



Cambodia has a rich cultural past. The stunning temples of Angkor Wat and Angkor Thom are world famous listed as a UNESCO Cultural Heritage. Cambodia is blessed with pristine white beaches, far stretching green rice fields, lakes like Tonle Sap, unspoilt islands, lush forests, the Mekong River, jungle and villages with restored colonial houses, as well as the massive Tonle Sap.

## 6.3 ICONIP 2019 and beyond

If you would like to organize ICONIP 2019, the main conference of APNNS, please prepare a proposal according to the following guidelines:

- \* List of organizing committee members; biosketch of key organizing committee members;
- \* Location and date of the conference; venue; transportation; sightseeing;
- \* Program highlights;
- \* Budget; registration fee structure.

Please submit your proposal to APNNS Vice President for Conferences, Derong Liu ([derongliu@foxmail.com](mailto:derongliu@foxmail.com)).

## 6.4 Technically co-sponsored conferences

We have recently approved the technical co-sponsorship of the following conference:

ISNN 2017

14th International Symposium on Neural Networks

July 21-23, 2017

Sapporo, Hokkaido, Japan

<http://conference.cs.cityu.edu.hk/isnn/>

Please submit your request for APNNS technical co-sponsorship to APNNS Vice President for Conferences ([derongliu@foxmail.com](mailto:derongliu@foxmail.com)), together with the following documents:

- Conference CFP and keywords of your conference;
- List of organizing committee members, with APNNS members clearly identified;
- Publication plan of your conference;
- Any special benefits to APNNS members.