

Asia Pacific Neural Network Society

No. 5

July, 2020

APNNS NEWS



ICONIP 2020 Venue - Bangkok, Thailand

APNNS NEWS

No. 5 (July 2020)

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1. President's Message



Prof. Tingwen Huang, President

Today and into the future, Artificial Intelligence (AI) are omnipresent: Siri, face recognition, speech recognition, robots, intelligent agents, smart control, natural language processing, drones, self-driving cars, and the like. AI has immersed itself into large parts of our daily life. Artificial neural networks are the critical tool for machine learning. Deep learning (DL) is part of a broad family of machine learning methods based on artificial neural networks with representation learning. DL is gaining much popularity due to its superiority in terms of accuracy when trained with a large amount of data. In particular, AI and DL-based technologies are currently playing an important role in response to the COVID-19 pandemic, being applied to study the virus, diagnose individuals, test potential treatments, analyze the public health impacts, and even search for vaccines and medicine.

The Asia Pacific Neural Networks Society (APNNS) has committed ourselves to promoting scientific, technological, and educational advancements for our members and the larger technical community in the related fields of neural networks, by various activities, especially through its annual flagship conference: the International Conference on Neural Information Processing (ICONIP). ICONIP has become a high-level international forum for scientists, engineers, and educators to share the state of the art of research and applications in neural networks, neuroscience and related fields. This year (2020), ICONIP will be held in Bangkok. I wish you to be part of this important event. Also, the Society has launched the Deep Learning and Artificial Intelligence Winter/Summer School to serve the interested students and researchers, industry professionals since 2018. This program has been successfully held for three editions now. The program offered this year is outstanding in that it included 17 renowned scholars, as well as an industry speaker and additional panelists, from all over the world to give enlightening lectures on various topics in DL and AI, which is also free to all academics!

APNNS has become one of the three premier international neural networks societies. For this, I must pay tribute to the past presidents and the Board of Governors (BoG) whose diligent work has made APNNS a dynamic and congenial body. I am well aware of my responsibility in leading this society to charge forward. I can assure you that I will closely collaborate with all the colleagues from the Executive Committee (ExCom), the BoG, and all of our members.

I cordially invite you to network with the ExCom and myself with any thoughts, ideas, or proposals that can help promote the activities of APNNS.

I wish you all a productive and healthy 2020 and I am looking forward to seeing you at ICONIP2020, whether physically, virtually, or both!

APNNS has a strong leadership provided by the Board of Governors:



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President

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Texas A&M University at Qatar
Email: tingwen.huang [at] qatar.tamu.edu



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2. Society Membership



Kevin Wong, VP Membership

2.1 Membership Information and Update

Asia Pacific Neural Network Society (APNNS) was formally established in November 2015. APNNS was evolved from the original Asia Pacific Neural Network Assembly (APNNA) which was founded in 1993. Our active members are distributed from regions like Australia, China, Hong Kong, India, Japan, Malaysia, New Zealand, Qatar, Saudi Arabia, Singapore, South Korea, Taiwan, Thailand, Tunisia, Turkey and UAE. We also have members from countries in other regions of the world.

2.2 Membership Online System

Recently, the society has moved the management of the membership information online, and available at <https://www.apnns.org/member/>

For all current and active member of 2020, you should have received an email requesting you to check and update your information online. For some reason if you did not receive it, you are requested to log into your account by using following the steps to check or update your information.

- 1) Go to <https://www.apnns.org/member/membership-login/> page.
- 2) Reset your password by clicking "Forgot Password?".
- 3) Login with the initial password sent by email. Then, you can see your name on top of the page.
- 4) Click your name, and you can see your membership information.
- 5) Click "Update Information" at the right-hand side.
- 6) Fill-in/update information (don't forget to change your password).
- 7) Recheck your membership information by clicking your name on top.

You can also find your membership number online, as well as the function to print a membership card.

However, if your membership is current and active for 2020, please do not renew your membership for 2021 by making payment first, as a renewal notice will be sent out by the end of the year.

If your membership has expired and you would like to renew it, you can use the online system to make payment for your membership for 2020.

If you require any assistant, please email to membership@apnns.org

3. Education



Jonathan H. Chan, VP Education

APNNS organizes educational seminars and workshops. Please contact the VP Education for sponsorship of your education events.

3.1 Upcoming Events

[APNNS/IEEE Education Forum Series: Deep Learning and Artificial Intelligence Summer School 2020 \(DLAI3\)](#)

Date: 29 June - 3 July 2020

Venue: Bangkok, Thailand + AoE (Virtual Event)

The APNNS/IEEE Education Forum series on Deep Learning and Artificial Intelligence Summer School 2020 ([DLAI3](#)) is catered to all interested students, engineers, researchers, executives and administrators who may have some basic knowledge of machine learning and AI. The venue is online due to the current pandemic and it will be held from June 29 to July 3, 2020. DLAI3 will feature two NVIDIA Deep Learning Institute (DLI) Workshops on the first two days. As DLAI3 is a virtual event, it is offered free-of-charge to all academics. Non-academics can attend the NVIDIA DLI Workshops for certification at a deeply-discounted nominal cost that is payable to NVIDIA DLI. All other sessions are also free-of-charge to non-academics.

4. The 11th International Cybersecurity Data Mining Competition (CDMC 2020)



Paul Pang, VP Competitions

<http://www.csmining.org/>

The CDMC2020 is a challenging, multi-month research and practice competition, focusing on application of knowledge discovery techniques to address cyber security challenges in real world applications. The competition is open to multi-person teams or individuals worldwide, particularly welcome university students, undergraduate or postgraduate in the field of data science, network engineering, cyber security, and artificial intelligence.

The competition will be coupled with the 13th International workshop on Artificial Intelligence and Cybersecurity (AICS 2020), which is an associated event to the 27th International Conference on Neural Information Processing (ICONIP 2019), Bangkok, Thailand.

4.1 Competition Tasks

Task 1: AndMal2020-CDMC: Android Malware Detection

The unrivalled threat of Android malware is the root cause of various security problems. Despite of tremendous research work, it is still menacing the cyber world. AndMal2020 is the collection of huge android malware samples that contains 12 malware categories and 191 malware families. The part of dataset presented here has a shape (119696x2497). The purpose of this dataset is to help evaluate models to early detect and characterize android malware. It is divided into training (70%) and testing set (30%) with following shape.

Task 2: IoTMal2020-CDMC: IOT Malware Detection

Based on the byte sequences collected at the entry points of ELF files as discriminant features and the malware families of the programs as training labels, the participants are required to perform a classification task to predict the malware families of the test samples. The dataset consists of 72,638 samples generated following the procedure below: First, a collection of malicious and benign Linux programs in ELF format were collected from various sources. Then, from each of these programs, the first 2K bytes (0-padded if the file is not long enough) starting at the entry point of the file were extracted. These ASCII strings were then encoded by a simple encryption cipher to remove the sensitive information and fed to a base64 encoder to yield readable radix-64 representations. Label (family type of malware) of the binary files are determined by the state-of-art anti-virus engines.

4.2 Prizes and Award

We have set cash prizes for the competition. The top ranking team of all competition tasks will be eligible to win a cash prize of NZD \$3000 (subject to the sponsorship fund received in 2020). Additional prizes may be available as travel grants for deserving participants to help them attend the ICONIP 2020 conference and the AICS 2020 workshop.

4.3 Important Dates

Competition starts: Jul 1, 2020

Competition closes: Sep 30, 2020

Winner Announcement and Award: Nov 21, 2020

5. Call for Bids – ICONIP 2022 and/or 2023



Minho Lee, VP Conferences

28th and/or 29th International Conference on Neural Information Processing

The International Conference on Neural Information Processing (ICONIP) hereby invites proposals to host the conference in the Asia-Pacific region in October, November or December, 2022 and/or 2023. We seek draft proposals from prospective bidders in the Asia-Pacific region. The APNNS (Asia-Pacific Neural Network Society) GB members will select the General Chair by voting.

Bid Highlights: Draft proposals include information on the following:

- Location (accessibility; conference venue, e.g., convention center, hotel or university; accommodation; dining options)
- Proposed dates. Religious and local national holidays should be avoided, as much as possible. - Local arrangements team (chair/co-chair, committee, volunteer labor, registration handling; describing any experience the team has had in organizing previous conferences and the number of participants at those conferences)
- Meeting venues (space for sessions, tutorials, workshops, posters, exhibits, demos, small meetings and registration)
- High-speed, all-ports-open, easy-to-use internet access
- Audiovisual equipment
- Catering, including breaks, receptions, poster sessions, banquet and entertainment (traditionally, dancing for participants at the banquet)
- Local sponsorships
- Local expenses estimates spreadsheet (using template provided, link above)

Important Dates:

- End of October, 2020: Final draft due day for bidders
- End of November 2020 (APNNS GB meeting): Bid selected by voting

The selected location for ICONIP2022 and/or 2023 will be announced at the ICONIP2020 conference (Bangkok, November 18 ~ November 22, 2020).

For any queries please contact Minho Lee, the Vice President (VP) for conference.

Please send your draft proposals (ppt slides and/or document) to email: mholee@gmail.com

Prof. Minho Lee

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1370 Sankyuk-Dong, Puk-Gu,

Taegu 702-701, Korea (South)

6. A new policy between APNNS and ICONIP



Minho Lee, VP Conferences

From year 2020, we will apply a new financial policy to ICONIP conferences.

1. Conference budget – income & outcome (expenditure)
 - A. Budget Plan: The candidate of general chair for future ICONIPs should prepare a budget plan including the venue, number of expected number of submitted papers as well as registration fee. He or she must prepare a several budget plan options depending on the expectation of number of submitted papers. If it is necessary to change the original proposal including the venue and registration fee, the host should get an approval from APNNS EXCO. [We may use INNS package for hosting a conference]
 - B. Income : The registration fee is collected by APNNS through a registration site that is set up by APNNS. APNNS is responsible to collect ICONIP registration fee using credit card and/or Paypal services.
 - C. Outcome : After the conference, the general chair and financial chair should report all of expense with receipts to APNNS auditors within 3 months after the conference. The VP for finance should check with audit report prepared by APNNS auditors, and then GBCon approve it.
2. Profit sharing
 - A. Profit should be shared by local organizer and APNNS as 50/50 split.
3. Insurance and seed money issue
 - A. The APNNS should provide a seed money. If the host has a surplus, the host for the conference should return the seed money to APNNS. The financial VP should suggest a certain amount of seed money. EXCO can decide it with approval in the GB meeting. If the host has a deficit after paying the society fee, the host should return the seed money after deducting a certain amount of deficit from the seed money. We need to discuss the certain amount of deficit (for example, 50% percentage responsibility) between the host and APNNS.
4. PC members
 - A. PC members should review a certain number of papers.
 - B. APNNS prepare a list of PC members, and provide to conference PC chairs.
 - C. After the conference, the PC chairs should update the list and report with reviewers' evaluation to VP for conference

7 ICONIP 2020 Information



Andrew Leung and James Kwok, General Co-Chairs of ICONIP 2020

7.1 Overview

The 27th International Conference on Neural Information Processing (ICONIP2020) aims to provide a leading international forum for researchers, scientists, and industry professionals who are working in neuroscience, neural networks, deep learning, and related fields to share their new ideas, progresses and achievements.

ICONIP2020 will be held in Bangkok, Thailand, during November 18 - November 22, 2020 and will be collocated with several events, including ACML, iSAI-NLP, AIoT, CSBio, and DLAI4. ICONIP2020 will deliver keynote speeches, invited talks, full paper presentations, posters, tutorials, workshops, and social events. We are still planning to have a physical meeting at this time. The conference will not be postponed and will take place on 18-22 November as planned. However, we continue to monitor the situation vigilantly and will revise the mode to safeguard the safety of the participants. Thus all accepted contributions will be published, presented as normal, although presentations might take a different form.

7.2 Organizing Committee

Honorary Co-Chairs

Jonathan Chan, Thailand
Irwin King, Hong Kong

General Co-Chairs

Andrew Leung, Hong Kong
James Kwok, Hong Kong

Program Co-Chairs

Haiqin Yang, China
Kitsuchart Pasupa, Thailand

Local Arrangements Co-Chairs

Vithida Chongsuphajaisiddhi, Thailand

Finance Co-Chairs

Vajirasak Vanijja, Thailand
Seiichi Ozawa, Japan

Special Sessions Co-Chairs

Kaizhu Huang, China
Raymond Chi-Wing Wong, Hong Kong

Tutorial Co-Chairs

Zenglin Xu, China
Jing Li, Hong Kong

Proceedings Co-Chairs

Xinyi Le, China
Jinchang Ren, United Kingdom

Publicity Co-Chairs

Zeng-Guang Hou, China
Ricky Ka-Chun Wong, Hong Kong

Regional Liaison

Yiu-ming Cheung,	Hong Kong
Junqiu Wei,	Hong Kong
Jianke Zhu,	China
Jiefeng Cheng,	China
Kun Zhang,	USA
Zhirong Yang,	Norway
Bo Zhang,	France
Paul S Pang,	New Zealand
Somnuk Phon-Amnuaisuk,	Brunei

Sponsors:



7.3 History

26th International Conference on Neural Information Processing, Sydney, Australia, 2019

25th International Conference on Neural Information Processing, Siem Reap, Cambodia, 2018

24th International Conference on Neural Information Processing, Guangzhou, China, 2017

23rd International Conference on Neural Information Processing, Kyoto, Japan, 2016

22nd International Conference on Neural Information Processing, Istanbul, Turkey, 2015

21st International Conference on Neural Information Processing, Kuching, Sarawak, Malaysia, 2014

20th International Conference on Neural Information Processing, Daegu, Korea, 2013

19th International Conference on Neural Information Processing, Doha, Qatar, 2012

18th International Conference on Neural Information Processing, Shanghai, China, 2011

17th International Conference on Neural Information Processing, Sydney, Australia, 2010

16th International Conference on Neural Information Processing, Bangkok, Thailand, 2009

15th International Conference on Neural Information Processing, Auckland, New Zealand, 2008

14th International Conference on Neural Information Processing, Kitakyushu, Japan, 2007

13th International Conference on Neural Information Processing, Hong Kong, 2006

12th International Conference on Neural Information Processing, Taipei, 2005

11th International Conference on Neural Information Processing, Calcutta, India, 2004

10th International Conference on Neural Information Processing, Istanbul, Turkey, 2003

9th International Conference on Neural Information Processing, Singapore, 2002

8th International Conference on Neural Information Processing, Shanghai, China, 2001

7th International Conference on Neural Information Processing, Taejon, Korea, 2000

6th International Conference on Neural Information Processing, Perth, Australia, 1999

5th International Conference on Neural Information Processing, Kitakyushu, Japan, 1998

4th International Conference on Neural Information Processing, Dunedin, New Zealand, 1997

3rd International Conference on Neural Information Processing, Hong Kong, 1996

2nd International Conference on Neural Information Processing, Beijing, China, 1995

1st International Conference on Neural Information Processing, Seoul, Korea, 1994