Family Corner

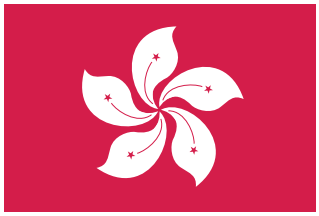
Yiu-ming Cheung
Hong Kong Baptist University, CHINA
Michael Chau
The University of Hong Kong, CHINA

Hong Kong Chapter Report

The IEEE (Hong Kong) Computational Intelligence Chapter was founded in 2003 and aims to coordinate and support work and to arouse the public's interests in the field of Computational Intelligence in the city as well as the region. Over the years, we have successfully organized quite a number of activities that lead to our goal. These activities can be classified in four categories: conference co-organization and sponsorship, academic seminars, industry visits, and student project/paper competition. In the following, we report the highlights of these activities.

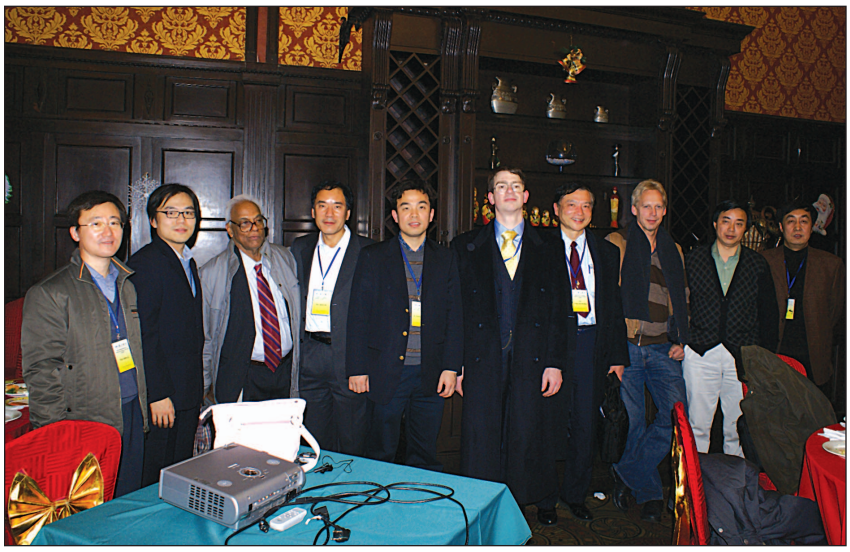
Conference Co-organization and Sponsorship

Our Chapter has co-founded the International Conference on Computational Intelligence and Security (CIS) in 2005. The objective of CIS is to bring together researchers, engineers, developers, and practitioners, from academia and industry, working in all areas of two crucial fields in information processing: computational intelligence (CI) and information security (IS), to share their experience, and exchange and cross-fertilize ideas. In particular, this series of CIS conferences provide an ideal platform to explore the potential applications of CI models, algorithms and technologies to IS. Presenters can disseminate the state-of-the-art research, development, and implementations of systems, technologies and applications in these two broad, interrelated fields.



Organized in conjunction with Xidian University in Xi'an, China, CIS 2005 was an immediate success, with 1802 submissions from 41 countries and regions all over the world. All of them were peer-reviewed by the Program Committee and other expert reviewers in the related fields. Finally, 338 high-quality papers were accepted, yielding an acceptance rate of 18.7%. The conference and the affiliated workshop was attended by more than 310 participants, over half of which were from outside Hong Kong and Mainland China.

Following the great success of CIS 2005, we continued to co-organize CIS 2006 in Guangzhou, China and co-sponsor CIS 2007 in Harbin, China, respectively. Both conferences were well received by participants in the region as well as those from overseas. CIS 2006 received 2078 submissions from 32 countries and regions all over the world. After peer-review, 399 high-quality papers were accepted, yielding an acceptance rate of 19.2%. CIS 2007 received in total 1278 submissions from 23 countries and regions. All of them were peer-reviewed by the Program Committee and other experts in the field. 224



The main organizers and the invited keynote speakers at the conference banquet at CIS 2007 in Harbin, China.

Digital Object Identifier 10.1109/MCI.2008.919091

1556-603X/08/$25.00©2008IEEE

regular papers were accepted and included in the proceedings, resulting in an acceptance rate of 17.5%.

Distinguished speakers were invited to speak at these conferences in order to provide our conference attendants with the latest views from the leading experts. For example, at CIS 2007, four distinguished keynote speakers, namely Professor Xindong Wu, Professor L.M. Patnaik, Professor Ton Talke, and Professor Stephen D. Wolthusen, were invited.

Besides the CIS conferences, our Chapter has also supported and co-sponsored a CI-related conference, namely the 8th International Conference on Intelligent Data Engineering and Automated Learning (IDEAL'07), which is dedicated to emerging and challenging topics in intelligent data analysis and engineering and their associated learning paradigms.

Through these events, we have been able to build our connection with computational intelligence experts in the region. In the future, we will be actively involved in the organization/sponsorship of CIS and IDEAL conferences as usual, including the forthcoming CIS 2008 and IDEAL 2008, respectively.

Winners and organizers of the Student Project/Paper Competition held in Hong Kong in 2007.

Academic Seminars

In order to offer our members and the local community a communication channel to share their experience and intelligence, our Chapter has organized several seminars on topics related to computational intelligence. These seminars were delivered by distinguished speakers in the field and were well received by our members. For example, in March 2007, we invited Professor Zhenya He from the Southeast University, Nanjing, China to give a seminar on "Fuzzy Neural Computational Intelligence." Neural computational intelligence focuses on the development of the theory and the implementation for the brain-like information processing system based on neural networks. It is a computational process of advanced ideations and nonlinear adaptive dynamic behaviors. The content of the seminar includes the fuzzy neural computational model, the fuzzy neural synchronization for secure communication, and the fuzzy attack methods. Over 20 participants from the academia and the industry joined this seminar.

Industry Visits

In order to allow our members to stay aware of the latest development of computational intelligence technologies in the industry, our Chapter has organized a number of industry visits in the past few years. For example, together with the Department of Computer Science at Hong Kong Baptist University, the Chapter co-organized a visit to the Hong Kong International Airport (HKIA) to see their RFID system, which is currently being used in baggage handling, in November 2007. More than 20 members joined this event. During the visit, the HKIA staff introduced their current RFID system used in baggage handling and guided a tour to show the on-site operation of this system. All participants benefited much from this visit, including: (1) a better understanding of the real operation of an RFID system, (2) the realization of the challenges and problems in implementation of such a system, and (3) the potential collaboration with each other.

Another visit that we organized was a visit to a manufacturing company in Dongguan, China that utilized computational intelligence technologies in September, 2004. In this event, some non-Chapter members also joined with us. We toured the assembly shop of the company and had a detailed discussion with their manager.

Student Project/Paper Competition

To promote the field of computational intelligence among university students in Hong Kong, our Chapter organized the "Final Year Project (FYP) Competition" for the final year students enrolled in any undergraduate degree program in the tertiary institutions in Hong Kong. The first competition was held in 2005 and continued to be held annually afterwards.

To be qualified for entry into the competition, a project must be supervised by at least one tertiary institution faculty member in the course of its development, and conducted in a relevant field in computational intelligence, such as artificial intelligence and machine learning, intelligent risk management, simulation process, pattern and speech recognition, intelligent systems, and data mining. In each year, a Call for Participation was issued and disseminated to the relevant departments (e.g., computer

science and engineering departments) in the local universities in Hong Kong. Submissions were received around May each year and each submission went through a round of review by our ad-hoc judge panel consisting of experts in the area of computational intelligence. Based on the review results, three projects were selected into the final round and each of the three teams was invited to give a presentation of their project. The judge panel scored the project and decided on the champion, first runner-up, and second runner-up teams. Throughout the years, we have received many interesting projects that span through a wide spectrum of topics in computational intelligence, ranging from manufacturing to Web searching and from weather prediction to game design.

Starting in 2007, we also extend our competition to graduate students. In particular, we invited graduate students in Hong Kong to submit to our competition their research papers related to computational intelligence. This group is judged separately from the undergraduate submissions. The result was encouraging and again we received many interesting and high-quality submissions.

Future Plans

We will strive to continually develop and prompt the Chapter in the future. Our planned activities include but not limited to the following:

- ❏ continually organize the Student Project/Paper Competition;
- ❏ continually sponsor and/or organize the CIS conference series as well as other conferences, e.g. IDEAL conferences;
- ❏ attract more local students to join our Chapter via setting up the student branch;
- ❏ develop local membership;
- ❏ sponsor CI-related events and activities;
- ❏ organize industry visits; and
- ❏ organize social events.

Acknowledgment

We thank the IEEE Computational Intelligence Society and the IEEE Hong Kong Section for their great supports. We also thank all the current and past committee members of our Chapter for their enormous efforts and contributions.