

# IEICE Global Plaza no.18

— Monthly community plaza in English for students, faculties and engineers —

## Essay

### WACE's Work Integrated Learning and Workforce Strategy

Paul J. Stonely, Dr., CEO, and  
Michelle Hansford, Director

World Association for Cooperative Education (WACE)  
Boston, USA

The World Association for Cooperative Education (WACE) is the only international organization devoted to promoting Work Integrated Learning (WIL). We convene our academic, corporate, and government partners to examine the impact of WIL on global workforce development while collaborating with new partners to increase awareness about WIL.

WIL consists of the various forms of integrating professional work experiences into classroom learning, such as cooperative education, internships, research, community service, service-learning, clinical rotations, practice, and student teaching. Depending upon where you are in the world, WIL can be referred to by many different names, such as cooperative and work-integrated education, experiential education, experiential learning, work-based learning, collaborative education, sandwich education, and learning-integrated work. WACE embraces all terms referring to and all forms of WIL and strives to establish communication and learning amongst its various constituents.

WACE promotes WIL through planning, promoting, and sponsoring World Conferences, which attract 400-500 international delegates; Regional Conferences, which attract 200-300 international delegates (mostly from the region at which the event is held); International Symposia, which attract 100-150 international delegates in a more intimate format; and Institutes on Global and Experiential Education, which are designed for University teams to build an implementable strategic plan. At the World Conference, WACE presents two awards: the Donald MacLaren Award, which is presented to an outstanding academic cooperative education professional (Fig.1), and the John A. Curry Award, which is presented to an outstanding corporate cooperative education professional.

WACE also offers publishing opportunities to our partners in our annual publication, *Premier Work Integrated Learning Programs*, where partners can publish articles, advertisements, profile information about their institutions and their programs, and student profiles and testimonials. WACE also facilitates other programs to benefit our partners, such as a student exchange program and a WIL Student Achievement Award for participation in international WIL programs.

One of WACE's programs, International Symposium on Work Integrated Learning will be held in Graz, Austria from June 23-25, 2010. This program fosters a unique learning environment, and rather than offering the traditional type of concurrent sessions, it will offer the "Academic Salon," which focuses less on formal presentation and more on discussion. Participants are encouraged to submit a short personal statement and/or professional overview regarding one of the nine discussion topics identified as the symposium's focus, including: engaging faculty & enhancing outcomes towards academic and professional progress of students; globalizing WIL programs & providing international

opportunities, and developing & sustaining WIL partnerships in a down economy. For more information on this exciting program, please visit <http://www.waceinc.org/graz/index.html>.

WACE's Secretariat is based in Boston, Massachusetts, U.S. and consists of a full-time CEO, Director, and Designer, all of whom report to a 43 member Board of Governors, who represent 18 countries. WACE's current President, Dr. Maurits van Rooijen, is from the Nyenrode Business Universiteit in The Netherlands;



Fig.1 Wace leaders on the occasion of Donald MacLaren Award given to Mr.Olof Blomqvist, WACE Director in June 2009, from the left, Dr.Stonely(author), Mr.Blomqvist, Ms.Hansford(author) and Mr.Peter Franks, Executive Dir. & Assoc. Provost of Drexel University, USA

WACE's President Emeritus, Prof. Ian Goulter, is from Charles Stuart University in Australia; and we also have Board Members from Austria, Canada, Hong Kong, Japan, Malaysia, Mexico, South Africa, and Thailand, just to name a few countries. WACE's presence in Asia has grown considerably over the past five years, and it was a very positive addition for WACE when we appointed Prof. Kenzo Takahashi from the University of Fukui in Japan to serve as a WACE Governor in 2007.

WACE, once called The World Council and Assembly on Cooperative Education, was founded in 1983 to foster cooperative education and work integrated learning programs worldwide. Its founders were college and university presidents, educational specialists, and employers from Australia, Canada, Hong Kong, the Netherlands, the Philippines, the United States, and the United Kingdom. The World Council and Assembly on Cooperative Education was renamed The World Association for Cooperative Education (WACE) in 1991. Today, WACE has nearly 4,000 WIL colleagues worldwide. For more information on WACE, call Ms.Hansford at [m.hansford@neu.edu](mailto:m.hansford@neu.edu).

### Note to the Essay by WACE CEO and Director Evolving Cooperative Education Activities Based on Collaborations in Universities, Industries and Governments



Kenzo Takahashi, Prof.  
Board Governor, WACE  
Dir., International Relations, IEICE

Thanks for the kind cooperation of Dr.P.J.Stonely, CEO, and Ms.M.Hansford, Director, WACE. As stated there, WACE has taken initiatives in the global cooperative education for long years. Originally, the fundamental idea of cooperative education was proposed by Prof.Herman Schneider, Dean, Faculty of Engineering, University of Cincinnati in 1906, it has been

developed in North America, later extended to the whole world. They have a long history of cooperative higher education and improvement of higher educational systems over the past one century. As a world trend in the last ten years, many countries have joined the discussion of cooperative education through the WACE's international conferences and symposiums, especially, in Europe, Oceania, especially Australia, Asia and Africa, additionally to the North America. As a matter of fact, Asian countries which have joined the discussion covers Japan, China including Hong Kong, India, Singapore, Thailand, Indonesia, Philippines, Malaysia and others.

In Japan, the cooperative education has been accelerated by Ministry of Education, Culture, Sports, Science and Technology Japan since 2005, through the national projects of practice based cooperative postgraduate education between universities and industries with a long term internship system. The primary purpose of the project is to bring up graduate students in practical environment of industries so that they can lead research activities or business administration in industries in the future. It is also based on the self-development graduate education for the quality enhancement of graduate education. The whole number of students dispatched to industries on the project has been increased year by year but the ratio of the students still remains around a few percents of those in the other leading countries on the yearly basis. I believe the contribution by WACE leaders will give more people, above all students a chance of knowing the importance of cooperative education in collaboration with industries.

### Hot Topics

## Many people joined IEICE's Special Symposium on Expected Collaborations by Industry, Academia, Government and IEICE toward Evolving ICT Development

IEICE -TFIPP

The IEICE's Special Symposium entitled "Rejuvenating the ICT industry - How can Industry, Academia, Government and IEICE contribute to it?" was held at Tokyo University on May 8 and more than 300 people joined it from relevant societies. Dr.Yukou Mochida, IEICE Director/Strategic Planning chaired it, Prof.Tomonori Aoyama, IEICE Chairman had the Opening Address. Keynote Speech was given by His Excellency Mr.Masamitsu Naito, Vice Minister, Ministry of Internal Affairs and Communications (MIC) and he summarized the new policy of ICT development, regional tie improving the quality of life in communities and creation of evolving ICT market, and referred to the expected collaborations with Asian countries (Fig.2). Prof.Aoyama chaired the panel discussion, Prof.Shojiro Nishio, VP, Osaka University, Mr.Masataka Kawauchi, DG for Policy Coordination, MIC, Dr.Tamotsu Nomakuchi, President, AIST, Dr.Noritaka Uji, VP, NTT, Dr.Masao Konomi, President, Konomi(PanComm) and Prof.Waichi Sekiguchi, Editor, Nikkei gave lectures and discussed on the issue of ICT revitalization(Fig.3). Prof.Hiroshi Ishii, MIT, USA talked the issue out through video.



Fig.2 Keynote Speech by His Excellency Mr.M.Naito, Vice Minister of MIC.



Fig.3 Panel discussion by outstanding lecturers, chaired by Prof.T.Aoyama.

## Annual Activity Report of IEICE Overseas Sections Report-1

### Activity Report from IEICE Bangkok Section



Watit Benjapolakul, Asso. Prof.,  
Chulalongkorn University  
Representative of IEICE Bangkok Section

The activities of Bangkok Section in Fiscal Year 2009-2010 are summarized as following:

(1) Members of IEICE Bangkok Representative Office  
Former Area Representative:

Prof. Dr. Prasit Prapinmongkolkarn, *Commissioner, National Telecommunications Commission (NTC) Global Plaza no.*

Current Area Representative:

Asso. Prof. Dr. Watit Benjapolakul  
*Dept. of Electrical Eng., Chulalongkorn University (CU)*

First Deputy Representative:

Asso. Prof. Dr. Tawil Peungma  
*Former Dean, Faculty of Eng. (FOE), KMUTL*

Program Coordinator:

Asso. Prof. Dr. Itthichai Arunsrisangchai,  
*Assistant to the President, Dept. of Electronics Eng., KMUTL*

Secretary and Registrar:

Associate Prof. Dr. Tuptim Angkaew  
*Dept. of Electrical Eng., CU*

Conference Manager and Executive Secretary:

Assistant Prof. Dr. Supavadee Aramvith  
*Asso. Head, Dept. of Electrical Eng., CU*

Advisory Board:

Asso. Prof. Dr. Kitti Tiraseath, *President, KMUTL*  
Prof. Dr. Somsak Panyakaew, *Former Dean, FOE, CU*

Committee Chairpersons:

*Communication Committee:* Asso. Prof. Dr. Watit Benjapolakul

*Electronics Committee:* Asso. Prof. Dr. Tawil Peungma

*Information Committee:* Asst. Prof. Dr. Boworn Papasatorn  
(Dean, School of Information Technology, KMUTT)

*Multimedia Committee:* Asst. Prof. Dr. Supavadee Aramvith

(2) Conferences sponsored by IEICE

"Thailand-Japan Microwave Workshop (TJMW)" was held in Bangkok on August 19-21, 2009 (Fig.4, 5). It was co-organized by IEICE Bangkok Section, IEICE Japan, IEEE MTT/AP/ED Thailand and KMUTNB. It was managed by Japanese Committee: *Chair*, Prof. Takashi Ohira (Toyohashi Univ. of Tech.), *Vice-Chair*, Mr. Hiroshi Okazaki (NTT Docomo), *Secretary*, Dr. Tamotsu Nishino (Mitsubishi Elect), *TPC Chair*, Prof. Atsushi Sanada (Yamaguchi Univ.), *TPC VC*, Dr. Shoichi Narahashi (NTT Docomo), *Publication*, Prof. Tadashi Kawai (Hyogo pref. Univ.), *Publicity*, Prof. Kensuke Okubo (Okayama pref. Univ.), *Contact for IEICE*, Mr. Toru Maniwa (Fujitsu), *Contact for Thailand*, Dr. Kenji Ito (Mitsubishi Elect), and Thai Committee: *General chair*, Prof. Vech Vivek, *Technical program*, Prof. Monai Krairiksh, *Publication*, Dr. Chuwong Phongcharoenpanich, *Publicity*, Dr. Denchai Worasawate, *Finance*, Dr. Tuptim Angkaew, *Local arrangement*, Dr. Sarawuth Chaimool, *Secretary*, Dr. Prayoot Akkaraekthalin.

IEICE proposed "Thailand-Japan MicroWave (TJMW)" to establish the continuous friendship between both MW societies. Thailand MW Society (IEICE, IEEE and ECTI) agreed to organize TJMW with the main-sponsorship by IEICE Bangkok Section and IEICE Microwave Technical Committee (Fig.4, 5). TJMW 2009 took a workshop style without the peer review to enlarge the opportunity for every generation. Thai/Japanese mentors internally reviewed papers to improve the quality. The

number of participants was about 110. Future TJMW style (conference or workshop) beyond 2009 will be considered through further discussions.



Fig.4 Participants in TJMW2009



Fig.5 Lecturers and organizers of TJMW2009

The other event, Special Seminar on “Filter Banks for Audio and Speech Processing” was held at CU on December 24, 2009. It was co-organized by IEICE Bangkok Section, IEICE Japan, Tokyo Institute of Technology (TIT), and CU (Fig.6,7). The number of participants was about 25.



Fig.6 Greetings to the lecturer, Prof.A.Nishihara, TIT



Fig.7 Lecturers and organizers of Special Seminar

Bangkok Section planned the activities in Fiscal Year 2010 as following:

- 2010 Thailand-Japan Microwave Workshop (TJMW 2010) in Bangkok on August 18-21, 2010, co-organized by IEICE Bangkok Section and IEEE MTT/AP/ED Thailand.
- 2010 Special Seminar: Advance in Next-Generation Network in December 2010, co-organized by IEICE Bangkok Section and IEICE Japan

## Report-2

### Activity Report from IEICE Beijing Section



Jian Yang, Prof.,  
Tsinghua University  
Representative of IEICE Beijing Section

In 2009, four professors were invited to have special lectures with twice IEICE support expenses. On Oct. 31, Dr. Jong-Sen Lee of Naval Research Laboratory, USA, gave a lecture entitled “Imaging Filtering and Analysis” at East-Main Building, Tsinghua University (Fig.8). About 30 persons attended the lecture meeting. On Nov. 6, 2009, Prof. Wolfgang Martin Boerner of Illinois University at Chicago, USA, gave a lecture entitled “Recent developments of airborne, high-altitude and spaceborne microwave POL-IN-SAR sensors for environmental remote sensing” at Environmental Building, Tsinghua University (Fig.9). About 20 persons attended the meeting. Between both lectures, Prof. Jian Yang spent a few minutes for IEICE publicity. He encouraged the attendants to apply for the membership of IEICE

On Oct. 13, 2009, Professor Masatoshi Nakamura and Prof. Susumu Nagano of Saga University gave lectures.

One was on the robotics and medical engineering, and another was on modern technology and social economics. About 30 or more persons attended the meeting. Prof. Tao Zhang first spent a few minutes to give the introduction I of IEICE organization. He encouraged the attendants to apply for the membership of IEICE.

During Oct. 26-29, the second Asia-Pacific Conference on Synthetic Aperture Radar (APSAR 2009) was held in Xian, China. This conference was cosponsored by IEICE. Prof. Jian Yang gave IEICE publicity during the conference.

In addition, some people were nominated to join IEICE overseas membership.



Fig.8 Lecture by Dr.Jong-Sen Lee, Naval Res. Lab., USA,



Fig.9 Lecture by Prof.Boerner, Illinois University, USA

## Report-3

### Activity Report from IEICE Singapore Section



Lei Zhu, Prof., School of E.E. Eng.,  
Nanyang Technological University  
Representative of IEICE Singapore Section

In the year 2009/2010, the IEICE Singapore Section successfully organized a few IEICE Distinguished Lectures which were given by the three renowned experts in the field of wireless and tele-communication. On May 18, 2009, Prof. Kiyomichi Araki, Tokyo Institute of Technology, Tokyo, Japan, gave a lecture with the title of “Switched MIMO Transceiver Design” in the School of Electrical and Electronic Engineering (EEE), Nanyang Technological University (NTU), Singapore (Fig.10). On December 7, 2009, Prof. Ke-Li Wu, Chinese University of Hong Kong(CUHK), Hong Kong, China, delivered his lecture of “Derived Physically Expressive Circuit Model for Embedded RF Passives” in School of EEE, NTU, Singapore (Fig.11). On December 14, 2009, Prof. Wolfgang Menzel, University of Ulm, Germany, gave his two lectures of “Broadband Sensors for Automotive, Industrial and Security Applications” and “Ultra-Wideband Circuits and Sensors for Medical Applications,” in School of EEE, NTU and Institute of Microelectronics (IME), Singapore, respectively (Fig.12).

Before the lectures, I introduced the IEICE organization to all of the audiences and welcome them, especially young scholars and PhD students, to join the IEICE as regular or student



Fig.10 Lecture by Prof.K.Araki, TIT



Fig.11 Lecture by Prof.KL Wu, CUHK



Fig.12 Lecture by Prof. W.Menzel, University of Ulm



Fig.13 Organizers of IEICE Distinguished Lectures

members. After each of lectures was finished, more than 30 minutes were usually spent for an interactive session between the lecturers and audiences due to very timely topics involved in these lectures (Fig.13). The number of participants in these four seminars was more than 120 in total.

Other activities in the past and future: Two administrative meetings were held to discuss Section activities. We are currently in discussion to invite two IEICE Distinguished Lecturers for delivering their lectures in Singapore.

#### Report-4

#### Activity Report from IEICE Taipei Section



Tzong-Lin Wu, Prof.,  
National Taiwan University,  
Representative of IEICE Taipei Section

IEICE Taipei section co-sponsored two events in the year. A distinguished lecture of IEICE was held in National Taiwan University (NTU), Taipei, Taiwan, on Sept. 16. A world-renowned scholar, Prof. Tatsuo Itoh, from UCLA was invited by IEICE Taipei Section to deliver a talk in NTU. Prof. Itoh arrived at Taipei on Sept. 14 and left Taiwan on Sept. 18 (Fig.14, 15). The Distinguished Lecture was arranged from 1:30pm to 3:00pm, on Sept. 16. Over 250 audiences attended this great event, including students, faculties, and engineers, and no empty seats were seen in the big lecture hall. It was a very successful event with warm interaction between speakers and audience. After the talk, a welcome tea party was held in the NTU with over 30 main faculties in north Taiwan who were invited. They had very joyful chatting. I would like to say it was successful in enhancing the visibility of IEICE in Taiwan and attracting more members for IEICE.

The second event was the workshop about "Design and Modeling for Power Integrity: State of the Art", which was held on Jan. 11, 2010 at Industrial Technology Research Institute (ITRI), Hsin-Chu Campus (Fig.16). This whole day event is opened by a talk from Dr. Wei-Chung Lo, Director of Packaging Department of ITRI. The invited speaker Prof. Swaminathan from Georgia Institute of Technology (GIT), US gave a series of talks in the morning session about basic concept for power integrity design and simultaneous switching noises in high-speed circuits. In the afternoon session, advanced technology about modeling and EBG design were covered. Over 50 engineers are attended this workshop, and they had good interaction between the audience and speaker was seen.



Fig.14 2009 IEICE Distinguished Lecture by Prof. Tatsuo Itoh, UCLA, US, at NTU.



Fig.15 IEICE Distinguished Lecture event at NTU



Fig.16 IEICE sponsored workshop at ITRI, Hsin-Chu

#### International Conferences in 2010

**OECC 2010 - IEICE Communications Soc. & Electronics Soc.**

The 15<sup>th</sup> OptoElectronics and Communications Conference, at Sapporo in Japan, on Jul. 5-9, <http://www.oecc2010.org/>.

**NOLTA 2010 - IEICE Engineering Sciences Soc.**

2010 International Symposium on Non-linear Theory and Its Applications, at Krakow in Poland, on Sept. 5-8, <http://nolta10.is.tokushima-u.ac.jp/>.

**SISA 2010 - IEICE Engineering Sciences Soc.**

2010 International Workshop on Smart Info-Media Systems in Asia, at Manila in Philippines, on Sept. 8-9, <http://splab.cs.kitami-it.ac.jp/sisa2010/>.

**GJS2010 - IEICE Communications Soc.**

The 13th German Japanese Symposium, at Osaka in Japan, on Sept. 13-14, <http://www.ieice.org/cs/conf/calendar.html>.

**ICCE 2010 - IEICE Electronics Soc. & Communications Soc.**

The 3rd International Conference on Communications and Electronics, at Nha Trang in Vietnam, on Sept. 15-17, <http://www.hut-icce.org/2010/>.

**AP-RASC'10 - IEICE**

2010 Asia Pacific Radio Science Conference, at Toyama in Japan, on Sep. 22-25, <http://www.ap.ide.titech.ac.jp/ap-rasc10/>.

**IWSEC 2010 - IEICE Engineering Sciences Soc.**

2010 International Workshop on Security, at Kobe in Japan, on Nov. 22-24, <http://www.iwsec.org/2010/>.

**APARM 2010 - IEICE Engineering Sciences Soc.**

The 4<sup>th</sup> Asia-Pacific International Symposium on Advanced Reliability and Maintenance Modeling, at Wellington in New Zealand, on Dec. 2-4, <http://msor.victoria.ac.nz/Events/APARM2010/>.

**ISADS 2011 - IEICE Communications Soc. and Information Systems Soc.**

The 10th International Symposium on Autonomous Decentralized Systems (ISADS 2011), in Tokyo and Hiroshima, on March 23-27, 2011. Due dates for papers and panel proposals is Aug 31. <http://www.isads2011.info.hiroshima-cu.ac.jp/>.

#### Message from TFIPP Secretariat

This issue is delivered also by a free mail magazine "IEICE Global Plaza on Line" with updated news of interest for you. Please contact Prof. Takahashi, TFIPP at [global@ieice.org](mailto:global@ieice.org), if you need. Back numbers are available in archives at [http://www.ieice.org/eng/global\\_plaza/index.html/](http://www.ieice.org/eng/global_plaza/index.html/).

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