

APRU

EXPANDING IMPACT IN A DIVIDED WORLD

2018

APRU Annual Report



APRU

**The Voice of
Knowledge & Innovation**



APRU MEMBERS

A NETWORK OF KNOWLEDGE
AND INNOVATION SPANNING THE
ASIA PACIFIC.

APRU membership is comprised of
universities around the Pacific Rim
known internationally for their
education and research excellence.

Australia

Brian P. SCHMIDT AC, Vice-Chancellor, The Australian National University

Glyn DAVIS AC, Vice-Chancellor, The University of Melbourne

Michael SPENCE, Vice-Chancellor and Principal, The University of Sydney

Ian JACOBS, President and Vice-Chancellor, UNSW Sydney

Canada

Santa J. ONO, President and Vice-Chancellor,
The University of British Columbia

Chile

Ennio VIVALDI VÉJAR, Rector, University of Chile

China and Hong Kong SAR

XU Ningsheng, President, Fudan University

LYU Jian, President, Nanjing University

LIN Jianhua, President, Peking University

Rocky S. TUAN, Vice-Chancellor and President,
The Chinese University of Hong Kong

Tony F. CHAN, President, The Hong Kong
University of Science and Technology

Paul K.H. TAM, Acting President and Vice-Chancellor,
The University of Hong Kong

QIU Yong, President, Tsinghua University

LI Shushen, President,
University of Chinese Academy of Sciences

BAO Xinhe, President,
University of Science and Technology of China

WU Zhaohui, President, Zhejiang University

Chinese Taipei

Tei-Wei KUO, Interim President,
National Taiwan University

Hong HOCHENG, President,
National Tsing Hua University

Indonesia

Muhammad ANIS, Rector,
University of Indonesia

Japan

Akira HASEYAMA, President, Keio University

Seiichi MATSUO, President, Nagoya University

Shojiro NISHIO, President, Osaka University

Hideo OHNO, President, Tohoku University

Makoto GONOKAMI, President,
The University of Tokyo

Kaoru KAMATA, President, Waseda University

Korea

Sung-Chul SHIN, President, KAIST

Jaeho YEOM, President, Korea University

Doh-Yeon KIM, President, POSTECH

Nak-In SUNG, President, Seoul National
University

Yong-Hak KIM, President, Yonsei University

Malaysia

Abdul Rahim HASHIM, Vice-Chancellor, University
of Malaya

Mexico

David GARZA, Rector, Tecnológico de Monterrey

New Zealand

Stuart McCUTCHEON, Vice-Chancellor,
The University of Auckland

Philippines

Danilo L. CONCEPCION, President,
University of the Philippines

Russia

Nikita Yu. ANISIMOV, President,
Far Eastern Federal University

Singapore

Subra SURESH, President, Nanyang Technological University,
Singapore

TAN Eng Chye, President,
National University of Singapore

Thailand

Bundhit EUA-ARPORN, President, Chulalongkorn University

USA

Thomas F. ROSENBAUM, President,
California Institute of Technology

Marc TESSIER-LAVIGNE, President, Stanford University

Carol T. CHRIST, Chancellor, University of California, Berkeley

Gary S. MAY, Chancellor, University of California, Davis

Howard GILLMAN, Chancellor, University of California, Irvine

Gene D. BLOCK, Chancellor, University of California, Los
Angeles

Pradeep K. KHOSLA, Chancellor,
University of California, San Diego

Henry T. YANG, Chancellor,
University of California, Santa Barbara

David LASSNER, Interim Chancellor, University of Hawai'i at
Mānoa

Michael SCHILL, President, University of Oregon

C.L. Max NIKIAS, President, University of Southern California

Ana Mari CAUCE, President, University of Washington



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FROM THE CHAIR

As Chair of APRU, I am delighted to introduce the Annual Report. The theme “Expanding Impact in a Divided World” stands as an objective of the Association as we act together to bridge many divides – disciplinary, cultural, national, and economic – in order to bring the benefits of knowledge and innovation to our societies and the region.

The theme also refers specifically to the achievements of the past year.

As the only organization of leading research universities that connects societies around and across the Pacific, APRU’s voice of knowledge and innovation is having a substantial impact through our network activities and partnerships with other international organizations, government, business and communities of interest. It also provides a mechanism on the international level for enhanced cooperation amongst all of us.

As you will read in the report, we have expanded our policy and program partnerships in pursuit of our strategy of providing platforms for cooperation on the major challenges of the Asia-Pacific region. We are working with policymakers and contributing to the development of international public policy.

Much has changed since APRU was established in 1997. The geostrategic importance and economic dynamism of the region has made it a global focus. The APEC region constitutes 40% of the world’s population, 60% of global GDP, and 47% of global trade. We share the world’s largest ocean and a highly active geophysical environment. Our cities (and universities) are disproportionately vulnerable to climate change, natural disasters, and sea level rise.

The scale and complexity of these and other challenges are too great for any single country to solve. In APRU we have a network that holds a significant proportion of the region’s education, research, and innovation capabilities.

During the past year, we expanded our membership to 50 members from 17 of the 21 APEC economies. After careful consideration, the Steering Committee invited seven new members to join the network, all prestigious research universities. I welcome them to the APRU community.

The commitment of our members over the years has built relationships of trust and cooperation and created a network of increasing value. The strong engagement by members, as reflected in this report, bodes well for the many tasks ahead.

Gene D. Block
Chancellor, UCLA
Chair, APRU

“

Over the past few years, APRU has played a more active role as an international organization, engaging with other multilateral organizations such as APEC and the UN, in addition to partnering with businesses and community organizations on common objectives. This has given our members more visibility and more pathways to making a contribution in the international policy community.

”

CHANCELLOR GENE D. BLOCK

APRU CHAIR



FROM THE SECRETARY GENERAL

THE GLOBAL COMMON GOOD

Over the past year, APRU's decision to move to a strategy of actively creating platforms for engagement and impact on Asia-Pacific challenges has achieved significant results. Building on more than 20 years of collegial activities within the network, we have advanced the network agenda endorsed by our members by:

- Contributing to solutions to global challenges
- Developing capacity as a collective policy think-tank
- Raising our members' visibility
- Building international influence through external partnerships
- Providing opportunities for the international engagement of faculty and students

On the international level, this strategy can be understood in a number of ways: a commitment to multilateralism in the face of economic nationalism, the provision of a policy mechanism which leverages network effects through multi-stakeholder partnerships, or as moral leadership through identifying and standing for the global common good.

The social responsibility of bringing the education, research, and innovation strengths of our members to bear on effective solutions to 21st century challenges also reflects the pressures, in a national context, on research universities to be accountable for public support. At the same time, APRU provides a type of emancipation from the national context through international collective action.

This report records many of the ways APRU, through the strong engagement of its members, has expanded its impact and built bridges in a divided global society. There have been significant developments in our continuing programs, including the partnership between the International Federation of the Red Cross and Red Crescent Societies and the APRU Multi-Hazards Program, active

engagement and support in the development of the APEC Labour Mobility Cooperation by the Population Aging Hub, and the development of two new Global Health working groups, as well as 18 international APRU events in 14 countries during 2017.

Several new initiatives from the past year highlight our progress.

- The APRU-APEC University Leaders' Forum held in Da Nang, Viet Nam, on November 8, 2017, brought together university leaders, policymakers, and the business community within the APEC CEO Summit and Leaders' Meeting, to discuss the implications of the Fourth Industrial Revolution. The outcomes included: a partnership with APEC's Project DARE to address the one million estimated skills shortfall in data science and analytics in APEC economies, and the announcement of the APEC Education Strategy Action Plan. This inaugural event presages future high-level forums, the next scheduled for Chile in November, 2019.
- The first APRU Sustainable Cities and Landscapes Conference held in Portland, Oregon, September 15-17, 2017, brought together 120 researchers and practitioners, such as planners, architects, transportation specialists, and policy-makers from local government to international organizations. Ten working groups brought forward proposals and a multi-year program led by The University of Oregon was planned, including the production of research and policy papers.
- The Annual Presidents' Meeting in Sydney in June, 2017 focused on the sustainability of the Pacific Ocean and APRU's commitment to the United Nations' Sustainable Development Goal on ocean sustainability. The first APRU Pacific Ocean Cluster Project, led jointly by UBC and The University of Washington, has since been launched.

- The APRU Digital Economy Program has produced two policy research projects on artificial intelligence. The first, 'AI for Everyone', is led by Keio University and engages researchers from a range of members. It focuses on the social implications of artificial intelligence in different contexts and from the perspective of different disciplines. The second is led by HKUST and focuses on the future of work, a critical policy issue for the region. Both are funded through a partnership with Google.

We have also expanded our membership this year and welcome seven distinguished new members:

- The Chinese University of Hong Kong
- KAIST
- Nagoya University
- Nanyang Technological University
- National Tsing Hua University
- POSTECH
- University of Chinese Academy of Sciences

They are already enthusiastically involved in APRU activities and we look forward to working with them in the years ahead.

It is becoming clearer that APRU is redefining the conventional concept of the internationalization of higher education, from a focus solely on institutional development (e.g. student and faculty mobility, research collaboration, and international student recruitment) to issues of international public trust and accountability, the shared ethical challenges of critical scholarship, and the necessity to aggregate at scale at the international level the social power of knowledge and innovation.

This redefinition speaks to the kind of world we want to create, the kind of values we aspire to uphold in our societies and in the international arena, and to securing the future through commitment to the global common good.

Christopher Tremewan
Secretary General

“

... this strategy can be understood in a number of ways: a commitment to multilateralism in the face of economic nationalism, the provision of a policy mechanism which leverages network effects through multi-stakeholder partnerships, or as moral leadership through identifying and standing for the global common good.

”

CHRISTOPHER TREMEWAN
SECRETARY GENERAL

NEW MEMBERS JOINING THE NETWORK

APRU was delighted to announce in 2017 that seven leading research universities accepted the invitation to become members. These new members will help to strengthen our collective contribution and expand our impact around the Pacific Rim.



香港中文大學
The Chinese University of Hong Kong

THE CHINESE UNIVERSITY OF HONG KONG

Founded in 1963, The Chinese University of Hong Kong (CUHK) is a forward-looking, comprehensive research university with a mission to combine tradition with modernity, and to bring together China and the West. As a top university in Hong Kong and Asia, CUHK aims to nurture students with both specialized knowledge and wisdom for life. The University houses five laboratories which are entrusted by the Ministry of Science and Technology of China to produce research of international quality and carry out important national research tasks. The University has an excellent record of published research, both in discipline-specific journals and high-profile publications.



KAIST, DAEJEON

The Korea Advanced Institute of Science and Technology (KAIST) was established in 1971 as the nation's first research-oriented science and engineering institution. KAIST was named the sixth most innovative university in the world and the most innovative university in the Asia-Pacific region for the last two years.

With a strong academic and employer reputation and a high number of citations per faculty, KAIST is particularly strong in STEM subjects such as materials science, engineering and technology, and chemistry and engineering. A research-intensive university, it has seven cutting-edge research institutes, including the BioCentury, Information Technology Convergence, the Design of Complex Systems, Entertainment Engineering, NanoCentury, Eco-Energy, and Urban Space and Systems.



NAGOYA UNIVERSITY, NAGOYA

Nagoya University has a long history of international scientific collaboration. Proudly associated with 6 of the 16 Nobel Laureates honored with the prize in Japan since 2001, Nagoya aims to become "The World's Best Research University." Led by the Institute for Advanced Research, Nagoya strives to develop research with practical applications through the Institute of Innovation for Future Society, and is pushing for fundamental research discoveries through the Institute of Transformative bio-Molecules (ITbM).



NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE

Founded in 1991, Nanyang Technological University (NTU), Singapore is praised for being a global leader in research and innovative learning. Most notably, NTU is home to the Interdisciplinary Graduate School and the Lee Kong Chian School of Medicine – jointly established with Imperial College London. NTU creates meaningful partnerships with other world-leading universities and global industry leaders. The Center for Excellence in Active Living for the Elderly (LILY Center), a joint-research center run by NTU and the University of British Columbia, hosts world-class research, aimed at designing computer technologies to help the elderly enjoy an active and independent lifestyle.



NEW MEMBER ORIENTATION

The International Secretariat organized an orientation day on March 21, 2018, at The Hong Kong University of Science and Technology (HKUST) campus.

Participants included Senior International Leaders and delegates from APRU membership. The orientation featured an introduction of APRU's initiatives and activities, as well as a discussion on how members can leverage their strengths in addressing Asia-Pacific challenges and create policy impact. There was an active exchange of ideas on how APRU can enhance its communication between members and better serve their needs.



NATIONAL TSING HUA UNIVERSITY, Hsinchu

National Tsing Hua University (NTHU) is consistently ranked as one of the premier universities in East Asia. Its alumni include Nobel Physics Laureates, Dr. Cheng-Ning Yang and Dr. Tsung-Dao Lee, Nobel Chemistry Laureate, Dr. Yuan-Tseh Lee, and Wolf Prize in Mathematics winner, Dr. Shiing-Shen Chern.

Its campus neighbors with research institutes and universities, including the Industrial Technology Research Institute (ITRI), National Synchrotron Radiation Research Center, and the Hsinchu Science-Based Industrial Park (HSIP) – dubbed the 'Science city of Taiwan'. The university has 10 colleges, 26 departments, 27 independent graduate institutes, and 10 master's and Ph.D. programs. NTHU emphasizes an interdisciplinary approach, transcending collegiate and departmental boundaries.



POSTECH, POHANG

Pohang University of Science and Technology (POSTECH) was founded in 1986 and has established itself as one of the top research universities in Asia, with global competitiveness and prominent growth potential.

POSTECH has consistently strived to raise the bar for advanced research. Home to more than 70 research institutes, POSTECH offers many state-of-the-art research facilities, including South Korea's only synchrotron radiation facility. The university has programs in four departments of science, seven departments of engineering, and interdisciplinary programs in related academic fields.



UNIVERSITY OF CHINESE ACADEMY OF SCIENCES (UCAS), BEIJING

Located in Beijing, the University of Chinese Academy of Sciences (UCAS) was established by the Ministry of Education of the People's Republic of China (PRC). Its predecessor was the Graduate University of Chinese Academy of Sciences (GUCAS) – the first graduate school in China. It boasts many firsts for the PRC: the first doctorate in science, the first doctorate in engineering, the first female student awarded a doctoral degree, and the first research student awarded double doctoral degrees in China – all graduating from this university.

In June 2012, GUCAS was renamed UCAS and began enrolling undergraduate students for the first time. Its mission is to cultivate innovative leading talents in science and technology for the future of China.

INTRODUCING NEW PRESIDENTS

2017-2018

APRU would like to welcome the following presidents who have assumed office during 2017-18 or who lead new member universities joining during this period. We look forward to their leadership and engagement.



Sung-Chul SHIN
President
KAIST



Akira HASEYAMA
President
Keio University



Seiichi MATSUO
President
Nagoya University



LYU Jian
President
Nanjing University



Subra SURESH
President
Nanyang Technological
University



Tei-Wei KUO
Interim President
National Taiwan University



Hong HOCHENG
President
National Tsing Hua University



TAN Eng Chye
President
National University of
Singapore



Doh-Yeon KIM
President
POSTECH



David GARZA
Rector
Tecnológico de Monterrey



Rocky Sung-chi TUAN
Vice-Chancellor and President
The Chinese University of
Hong Kong



Paul Kwong Hang TAM
Acting President and Vice-
Chancellor
The University of Hong Kong



Hideo OHNO
President
Tohoku University



Carol T. CHRIST
Chancellor
University of California,
Berkeley



Gary S. MAY
Chancellor
University of California, Davis



LI Shushen
President
University of Chinese
Academy of Sciences



Abdul Rahim HASHIM
Vice-Chancellor
University of Malaya



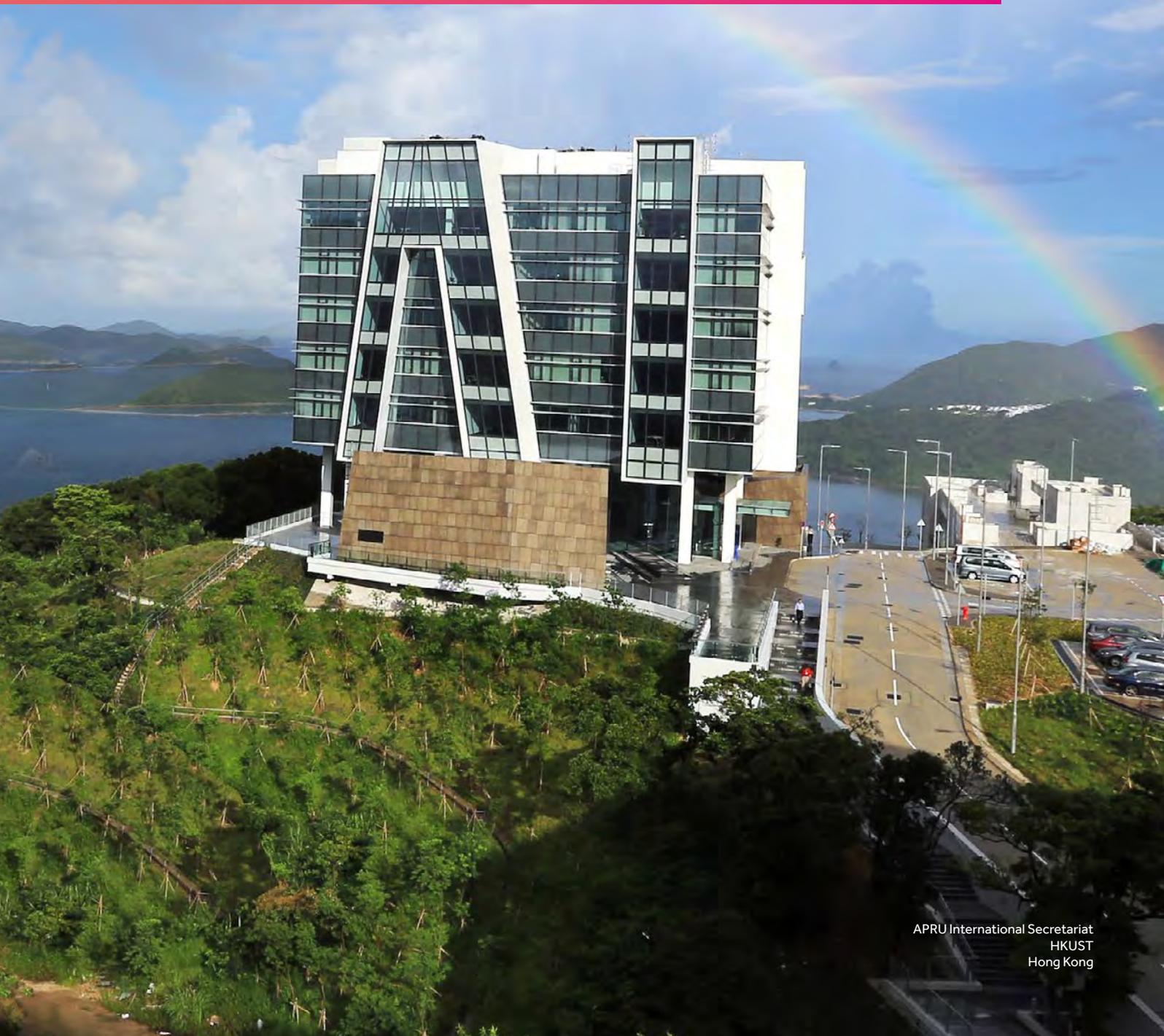
BAO Xinhe
President
University of Science and
Technology of China

STEERING COMMITTEE 2017- 2018

The Steering Committee is elected by the presidents of member universities and is the executive body of the Association. It oversees the strategy, policy, programs and finances of the network.



Gene D. BLOCK, Chancellor, UCLA, Chair
Ana Mari CAUCE, President, University of Washington
Tony F. CHAN, President, HKUST
David GARZA, Rector, Tecnológico de Monterrey
Kaoru KAMATA, President, Waseda University
C. L. Max NIKIAS, President, University of Southern California
Brian P. SCHMIDT, Vice-Chancellor, Australian National University
TAN Chorh Chuan, President, National University of Singapore (until December 2017)
TAN Eng Chye, President, National University of Singapore (from January 2018)
XU Ningsheng, President, Fudan University
Jaeho YEOM, President, Korea University





The Future of the Pacific and its Societies

2017 Annual Presidents' Meeting

INTRODUCTION

The 21st session of the Annual Presidents' Meeting took place at UNSW Sydney, Australia, from June 25-27, 2017. Leaders from across the APRU network were joined by scientists and policy experts.

The Hon. Rob Stokes MP, NSW Minister for Education; Gene Block, UCLA Chancellor and APRU Chair; and the host, President and Vice-Chancellor Ian Jacobs, UNSW Sydney, officially welcomed guests in their opening address. All three speakers emphasized the importance of APRU as the only network connecting the leading universities in Asia, the Americas, and Australasia, as well as its role in the international policy arena.

MAKING WAVES FOR THE PACIFIC

With the theme The Future of the Pacific and its Societies, the 2017 event gave precedence to one of the most pressing challenges of today: the sustainability of the Pacific Ocean and its future protection.

In 2017, APRU made a voluntary commitment to the United Nations' Sustainable Development Goal 14: to conserve and sustainably use the oceans, seas, and marine resources. The APM marked the official announcement of APRU's ambitious agenda to leverage the collective research and capabilities of the network to make headway towards this goal for a sustainable and healthy Pacific Ocean.



Professor Lisa Levin, Scripps Institution of Oceanography, UC San Diego, presented the latest findings on the future of the Pacific Ocean, with a focus on the 'deep ocean' and its vulnerability to climate change and human disturbance.

Professor Levin emphasized the need for interdisciplinary approaches to environmental management and stewardship of the ocean. She encouraged universities to reinforce UN efforts, help policy-makers promote carbon dioxide emission reduction, and create "a next generation that knows and cares about the ocean."

Dr. Yoshitaka Ota, Director (Policy), Nippon Foundation-UBC Nereus Program, The University of British Columbia, also spoke on how restoring ocean health can benefit global sustainable development.

KEYNOTE ADDRESS BY RT. HON. HELEN CLARK

The event's keynote speaker, Rt. Hon. Helen Clark, gave an address on how universities can drive progress on the United Nations' Sustainable Development Goals (UNSDGs), reiterating the vital and varied roles APRU's universities play both now and in the future. Ms. Clark emphasized that a major strength of the large research-based institutions of APRU is their capacity for cross-disciplinary

research, which can tackle the complex interactions between economies, societies, and the environment. "Universities are a major source of knowledge, and should be seen as key actors in shaping informed decision-making."

Drawing on her experience of working with governments, Ms. Clark emphasized that most policy-makers want to be able to make decisions which are likely to get the results they want, and are hungry for the information they need to make those decisions. She stated that achieving the UNSDGs will require partnerships across the economy, with the input of university leaders, and researchers being indispensable in informing implementation, monitoring, evaluation, and advocacy.

Following Ms. Clark's address, a presidential panel discussed the topic *Sustainability and Research Universities in Asia Pacific*: President and Vice-Chancellor Ian Jacobs, UNSW Sydney; President Yong-Hak Kim, Yonsei University; and Associate Professor Damon Salesa, The University of Auckland.



Top: Lisa Levin, Scripps Institution of Oceanography, UC San Diego.
 Middle: Christopher Tremewan, APRU Secretary General; Gene Block, Chancellor UCLA; and Ian Jacobs, President and Vice-Chancellor, UNSW Sydney.
 Bottom: Dr. Yoshitaka Ota, Director (Policy), Nippon Foundation-UBC Nereus Program, The University of British Columbia

GALA DINNER AND CEO BREAKFAST

The annual gala dinner had an innovative format, with TED-style talks from the UNSW faculty. The thought-provoking sessions took guests on a journey through a number of Pacific Ocean-themed topics, including Sea Level Changes by Professor John Church; Marine Biology by Professor Emma Johnston; Ocean Circulation and Climate by Associate Professor Katrin Meissner; and Marine Ecology by Dr. Adriana Vergés.

On the final day of the meeting, presidents and delegates had the opportunity to mingle with local business leaders, diplomats, and the media during the CEO breakfast, a session aimed at reiterating the importance of close collaboration with industry in regards to APRU's work.

The main address by Professor Christina Romer, UC Berkeley and former Chair of the Council of Economic Advisers in the Obama administration, focused on the Future of Trade in *Asia-Pacific After the Trans-Pacific Partnership*. This was followed by a lively panel discussion, comprising Chancellor David Gonski AC, Associate Professor Elizabeth Thurbon, and Professor Richard Holden from UNSW Sydney, and Natalie Cope, CEO, The Australia China Business Council.

OPERATION CRAYWEED: NORTH BONDI FOR APRU

As a special gift to delegates, Operation Crayweed of UNSW planted the APRU Underwater Crayweed Forest² at the iconic Bondi Beach. This meaningful gift is part of an on-going project to restore the diversity of underwater flora and fauna. This new APRU forest will play an important role in the improvement of the local underwater habitat around Bondi.

² <http://www.operationcrayweed.com/apru>



"Universities enjoy high status in their countries. They are generally respected for their role in educating future generations, their research expertise, and for their overall contribution to society. That makes universities powerful advocates when they choose to use their voice."

RT. HON. HELEN CLARK

PRIME MINISTER OF NEW ZEALAND 1999-2008;
ADMINISTRATOR, UNDP, NEW YORK 2009-2017

POLICY AND ADVOCACY



APEC University Leaders'
Forum

Deepening Engagement
with APEC

APRU - The New York
Times Student Case
Competition

UNIVERSITIES OF THE PACIFIC PREPARE TO LEAD IN THE FOURTH INDUSTRIAL REVOLUTION



(L-R) Nikita Yu. Anisimov, President, Far Eastern Federal University; Yong-Hak Kim, President, Yonsei University; Jaeho Yeom, President, Korea University; Nguyen Kim Son, President, Vietnam National University, Hanoi; H.E. Dr. Nguyen Van Phuc, Deputy Minister, Ministry of Education and Training of Viet Nam; Tony Chan, President, The Hong Kong University of Science and Technology; and Christopher Tremewan, Secretary General, APRU

INAUGURAL APEC UNIVERSITY LEADERS' FORUM

The inaugural APEC University Leaders' Forum took place on November 8, 2017, within the APEC CEO Summit and the APEC Leaders' Meeting. This new forum is an example of how APRU is actively creating platforms for engagement with policy leaders at the international level.

PURPOSE OF THE FORUM

- To scope the latest thinking on the Fourth Industrial Revolution among APEC leaders in higher education, business, and government.
- To build partnerships for policy development and capacity-building in the region.

Organized by APRU in partnership with the Vietnam Ministry of Education and Training and the Vietnam National University, Hanoi, the theme of the forum was the Fourth Industrial Revolution, which has created hopes for higher productivity but also anxiety for governments in regard to its transformative implications.

The forum was comprised of two panel sessions and an open discussion, both moderated by Ambassador Robert Holleyman, former Deputy United States Trade Representative and currently President and CEO of C&M International, located in Washington, D.C. Discussions opened with a focus on the role of universities in addressing the challenges brought about by an era of economic nationalism. Dr. Youngsuk 'YS' Chi, Elsevier Chairman, called on universities to resist the dangerous trend of nationalism by promoting multilateral discussion, and understanding the pace of

challenges and change at a time when governments are focused on short-term initiatives.

"Collectively APRU has the most powerful set of universities with an incredible voice to overcome the period of turning our back away from multilateralism. We want to see more collaboration because the problems are just too big. We cannot solve this alone."
DR. YOUNGSUK 'YS' CHI, ELSEVIER CHAIRMAN

SUSTAINABILITY, BIG DATA, AND ASIA-PACIFIC CHALLENGES

In the first session, Yong-Hak Kim, President of Yonsei University, emphasized the university's role as a platform to deliver solutions to the UNSDGs. Nikita Anisimov, President Far Eastern Federal University (FEFU), Vladivostok, Russia, drew on the importance of student-centered approaches to solve community problems, sharing examples of its recently opened Technopark, where students and researchers develop solutions to the difficulties facing the region.

The discussion focused on how education needs to deliver competencies reflecting the current and future requirements of regional labor markets, the challenges of meeting the diverse needs of the Asia-Pacific region by understanding the distinct contexts in which people live, and how universities can bring to the table what policy-makers are looking for.

EMPLOYMENT, DATA SCIENCE, AND ARTIFICIAL INTELLIGENCE FORUM

The second session explored the ways in which new data analytics tools can be used to address the employment challenges facing the Asia-Pacific region. Clay Stobaugh, Vice-President, Wiley and Project DARE Co-Chair, shared the economic implications of the current shortage of workers, stating, "One million jobs will go unfulfilled in APEC because the skill sets won't be able to provide data analytics as required by employers."

Tony Chan, President of The Hong Kong University of Science and Technology, described Hong Kong as the perfect storm of data, an adaptable work environment, and a dense population, and discussed how universities are the vehicles of change for industry and society. Jaeho Yeom, President of Korea University, emphasized

the importance of working with industry partners and the role of the university as a "pioneer village" to create new ideas and innovation.

Huang Dinglong, CEO of Malong Technologies, which focuses on artificial intelligence, provided an industry perspective, stating, "Artificial intelligence poses opportunities for more quality jobs in the future", outlining that companies will need to do more interesting work in this area as the best jobs have not yet been created.

Discussants reported how universities are now adapting traditional educational models to future needs, as well as the importance of working with industry partners and adjusting the learning environment in response to changing workforce demands.

"As all global challenges are related to the [UN] Sustainable Development Goals, universities serve as a place where students and researchers develop specific goals and solutions for the difficulties that we find in our region."

NIKITA ANISIMOV

PRESIDENT, FAR EASTERN FEDERAL UNIVERSITY (FEFU)

OUTCOMES OF THE UNIVERSITY LEADERS' FORUM

APRU – PROJECT DARE PARTNERSHIP ANNOUNCEMENT

Concluding the forum, APRU officially announced its partnership with APEC Project DARE on data science, analytics, and raising employment to bridge the skills gap.

APRU has brought academics to the table in developing a set of 10 competencies for data science and analytics skills, both at a Toolkit Development Workshop in Singapore in May 2017, followed by further engagement with the academic community during the Senior International Leaders' Meeting in Monterrey, Mexico, September 2017.

Following the creation of a Data Analytics Competency Checklist, APRU is working in close collaboration with Project DARE to support the implementation of the recommended action items and to further collaborate with employers, academic institutions, and other stakeholders in implementing the checklist's recommendations.

APEC EDUCATION STRATEGY ACTION PLAN

The final announcement reiterated APRU and EDNET's commitment, to working together to support the implementation of the APEC Education Strategy. APRU will harness the expertise of its members, and actively engage and support APEC's need for skills development and higher education.

The APEC Education Strategy Action Plan is APEC's first ever education blueprint. The public policy strategy provides a roadmap through to 2030, and is an example of how multilateral education collaboration is needed to deliver the skills required for the Fourth Industrial Revolution.

Building a Workforce of the Future

Steven Xavier Chan, Managing Director and Regional Head of Regional
and Government Affairs, State Street Asia Limited

Shiumei Lin, Vice President, Public Affairs and Sustainability
UPS Asia Pacific Region

John McKendry, Vice President, Developed Asia, Pfizer Essential Health

Christina Schönleber, Director (Policy and Programs)
Association of Pacific Rim Universities

DEEPENING ENGAGEMENT WITH APEC AND BEYOND

APRU collaborates with Asia-Pacific Economic Cooperation (APEC) on initiatives which aim to solve the diverse challenges of the Asia Pacific. APEC is a regional economic forum established in 1989 to leverage the growing interdependence of the region. APRU and APEC's 21 members aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

The rapid economic integration of the region prompted APRU to serve as a mechanism for universities to join together from 17 of the APEC economies, together, APRU provides policy advice to business and government on the development of research infrastructure and big science.

APRU has guest membership status of APEC Working Groups and participates in a number of high-level discussions to ensure that universities have a voice in shaping policy across the region.



National Center on APEC Executive Roundtable.

HUMAN RESOURCES DEVELOPMENT WORKING GROUP

The goal of human resources development in APEC is to promote the well-being of all people, and achieve sustainable and inclusive economic growth, as well as implement initiatives for education, labor, and capacity building.

APEC LABOR MOBILITY COOPERATION

APRU experts, Rafal Chomik (Senior Research Fellow, CEPAR, UNSW Sydney) John Piggot (Scientia Professor, Director, CEPAR, UNSW Sydney and APRU Population Ageing Research Hub Chair) and Albert Park (Professor of Economics, HKUST and APRU Population Ageing Research Steering Group Member), presented the findings from the recent research paper during the APEC Labor Mobility Framework Development Workshop in Nha Trang, Viet Nam on February 18, 2017. APRU continues to support the ongoing development of the APEC Labor Mobility Cooperation, providing a foundation for policy making in APEC economies.

APEC INTERNATIONAL WORKSHOP ON ADAPTATION TO AGING ISSUES

Representing APRU, Professor Barbara McPake from the University of Melbourne presented to delegates on the financial resources for social protection systems in aging societies. Part of APRU's continued work feeding into the Health Policy Dialogue on Promoting Healthy Aging and Noncommunicable Disease Control. The outcomes of the workshop were submitted to the Health Working Group and other related meetings at the Third Senior Officials' Meeting in August, 2017 in Ho Chi Minh City, Viet Nam.

NATIONAL CENTER ON APEC EXECUTIVE ROUNDTABLE

Christina Schönleber, APRU Director of Policy & Programs, addressed workforce challenges in the Asia Pacific during NCAPEC's (National Center for APEC) Executive Roundtable on January 30, 2018 in Singapore. This meeting's theme was "APEC in a Changing World," examining the effects of Asia Pacific's shift towards a digital economy. Discussions highlighted the need to reduce trade and investment barriers and provided valuable channels for the business sector to feedback into the policy process, ultimately, to develop more favorable and competitive business environments.



Beyond APEC: APRU Secretary General Christopher Tremewan signs MOU with Under Secretary General Jemilah Mahmood of the International Federation of Red Cross and Red Crescent Societies (IFRC) during the World Bosai Forum in Sendai, Japan.

OCEANS AND FISHERIES WORKING GROUP

The Oceans and Fisheries Working Group aims to ensure the conservation and sustainable use of marine resources, as well as the protection of marine ecosystems needed to support fisheries and aquaculture in the region.

APEC SUSTAINABLE MARINE DEVELOPMENT REPORT

APRU is collaborating with the China APEC Centre on Marine Sustainable Development on the APEC Marine Sustainable Development Report 2, to be completed in 2020. The report will serve as a platform to enable APEC to take an active role in facilitating the implementation of the UNSDG 2030 Agenda in the Asia-Pacific region. APRU nominated academic experts to join and support the project, including those working on the Pacific Ocean Cluster Project. The report aims to provide a comprehensive overview of the current status of sustainable marine development in APEC, as well as review the progress made and the challenges related to marine pollution control, climate change, and sustainable fisheries management.

APEC EXPERTS WORKSHOP ON ILLEGAL UNREPORTED AND UNREGULATED FISHING

APRU is actively collaborating with stakeholders to provide information and recommendations regarding the negative social, environmental, and economic impacts of illegal, unreported, and unregulated (IUU) fishing.

The workshop took place on April 27, 2018, in Singapore. Its findings will contribute to high-level policy recommendations to combat, deter, and prevent IUU fishing in the region, and assist economies in developing national policies and strategies to prevent the negative impacts of IUU fishing.

APEC FIRST SENIOR OFFICIALS' MEETING OUTCOMES 2018

- APRU continues to explore how it can support the meeting's waste management initiatives and the creation of an action plan to reduce plastic debris in the Pacific Ocean.
- China APEC Centre on Marine Sustainable Development reported on the study of microplastics, including workshops and training, and its collaboration with Zhejiang University as the lead university on the project.
- Oceans and Fisheries Working Group (OFWG) Chair confirmed that the APRU Pacific Ocean Cluster Project questionnaire and workshop details will be distributed to OFWG delegates for participation in the project.

BUILDING ON THE APEC INTERNET AND DIGITAL ECONOMY ROADMAP

APRU was invited to present at the Policy Dialogue on the Digital Economy in Papua New Guinea on March 7, 2018. APRU shared updates on its activities and projects addressing the impact of artificial intelligence and automation on society and labor, as well as its support of data analytics skills development. Professor Peter Cowhey, University of California, San Diego, delivered a keynote speech at the event, outlining three critical barriers to the expansion of the benefits of the digital revolution. He suggested APEC remove obstacles to integrating the region-wide digital economy, ensure it is fair and non-discriminatory in its policies, and to recognize the growing role of civil society in problem-solving.

APEC'S POLICY PARTNERSHIP FOR SCIENCE, TECHNOLOGY, AND INNOVATION (PPSTI)

At the SOM 1 PPSTI meeting, Christina Schönleber, Director, APRU Policy and Programs, gave a presentation on Enhancing Cross-Organizational Collaboration. The meeting's theme Embracing Digital Technologies for Inclusive and Sustainable Development centered around discussions on fostering smart living and healthy aging, promoting science and technology entrepreneurship among women, and catalyzing data sharing for economic resilience.

NASA COLLABORATION

The National Aeronautics and Space Administration sponsored and collaborated with the APRU-IRIDeS Multi-Hazards Program Hub and the Global Geodetic Observing System on the Global Navigation Satellite System (GNSS) Tsunami Early Warning System workshop. The workshop assessed what resources would be required to develop real-time GNSS through the Pacific-Rim and identify the data needs of possible future collaboration between Asia-Pacific Economic Cooperation (APEC) economies and the world.



Peter Cowhey, Dean and Qualcomm Endowed Chair in Communications and Technology Policy, University of California San Diego and APRU Director of Policy and Programs, Christina Schönleber together at the APEC Policy Dialogue on the Digital Economy.

OUR VOICE OF KNOWLEDGE AND INNOVATION AT APEC - A SUMMARY

Over the past year, APRU leveraged the education and research capabilities of its members and advanced policy development in the Asia-Pacific region by sending delegates and experts to the following meetings and workshops:

APEC ENGAGEMENT

APEC Second Senior Officials' Meeting
Ha Noi, Viet Nam, May, 2017

- Workshop on APEC Education Strategy Action Plan
- Healthy Women Healthy Economies Workshop
- Education Strategy Workshop
- Joint Policy Partnership on Science, Technology, and Innovation (PPSTI), and Education Network (EDNET) Meeting
- Human Resources Development Working Group (HRDWG) Plenary Session
- The Pacific Economic Cooperation Council (PECC) General Meeting
- High-Level Policy Dialogue on Human Resource Development in the Digital Age

APEC International Workshop on Adaptation to Population Aging Issues
Ha Noi, Viet Nam, July, 2017

APEC Ad Hoc Steering Group on the Internet Economy
Ho Chi Minh City, Viet Nam, August, 2017

EDNET Workshop on Action Plan of APEC Education Strategy
Beijing, China, September, 2017

APEC Workshop, Far Eastern Federal University
Vladivostok, Russia, September, 2017

APEC University Leaders' Forum
Da Nang, Viet Nam, November, 2017

National APEC Centre Round Table Discussion
Singapore, January, 2018

APEC First Senior Officials' Meeting
Papua New Guinea, February - March, 2018

- Policy Partnership on Science Technology and Innovation Meeting
- HRDWG Meeting
- EDNET Meeting
- HRDWG Meeting 2
- Economic Committee and HRDWG Dialogue on Structural Reforms
- Oceans and Fisheries Working Group
- Digital Economy High-Level Policy Dialogue

APEC Experts Workshop on Illegal, Unreported, and Unregulated Fishing
Singapore, April 27, 2018



BEYOND APEC

APRU continues to form new strategic partnerships and collaborations to expand its influence farther afield and make a deeper contribution to causes in the region.

POLICY PARTNERSHIPS WITH GOOGLE

AI FOR EVERYONE: BENEFITTING FROM AND BUILDING TRUST IN THE TECHNOLOGY

APRU is partnering with Google to explore AI-policy issues. The undertaking looks at issues of AI governance, its impact on the Asia Pacific, and how society can maximize AI-tech's potential for an equitable future. Collaborators from 11 leading research universities from the APRU network are working together to produce a series of working papers, resulting in policy recommendations, which will be published and widely disseminated to governments and civil society.



TRANSFORMATION OF WORK IN ASIA-PACIFIC IN THE 21ST CENTURY

The aim of the project, which is hosted by the Hong Kong University of Science and Technology (HKUST) and led by Professor Kar Yan Tam, Dean of HKUST Business School, is the production of a comprehensive joint report that analyses the transformation and provides policy recommendations. Ensuring that the project's outcomes will make their way to the relevant policymakers, it is in line with the overall APEC 2018 theme of Harnessing Inclusive Opportunities, Embracing the Digital Future.

MOU WITH IFRC DISASTER RISK AND REDUCTION POLICY

During the World Bosai Forum in Sendai Japan, APRU signed an MoU with the International Federation of Red Cross and Red Crescent Societies (IFRC). The agreement sees the two organizations commit to work together to move beyond research and actively pursue a disaster risk reduction policy. The partnership will allow APRU to work more closely with practitioners and apply its science and research to inform the public and find solutions to natural disaster-related challenges.

INTERNATIONAL



FEDERATION

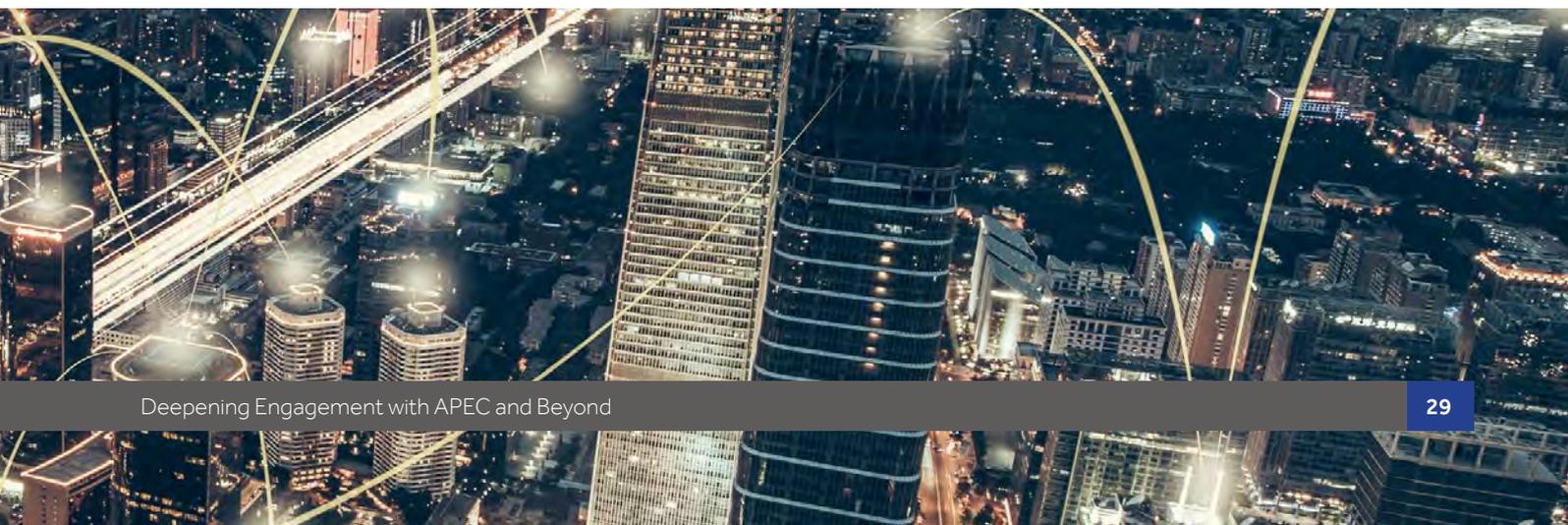
ADB COLLABORATION ON TECHNOLOGY AND AGING WORKFORCE

APRU is working closely with The Asian Development Bank to encourage academics from among its membership to participate in the organization's Visiting Fellow Program. The program gives researchers and academics the chance to share their ongoing or recently completed economic research at ADB's headquarters in Manila.



Asian Development Bank
ADB Clean Energy Financing Partnership Facility (CEFF)

In recognition of APRU's strong expertise and existing work in the field of aging populations, it launched a new collaboration with ADB in the areas of technology and the aging workforce with the view to maximize the gains from longevity and long working life to explore this emerging research agenda and its policy implications for the region.



BRIGHT MINDS TACKLE OCEAN POLICY ISSUES

APRU - THE NEW YORK TIMES CASE COMPETITION

In 2017, APRU and *The New York Times* launched the inaugural Asia-Pacific Case Competition. The competition was open to students from around the Pacific to deliver a 'wake-up call' on how climate change is impacting the ocean and our lives.



THE TASK

Participating individuals and teams were tasked with writing an 800-word policy brief on climate change and the future of the Pacific Ocean for a policymaker. With an overwhelming response, applications were received from 31 universities from 12 countries in the Americas, Asia, and Australasia.

THE WINNERS

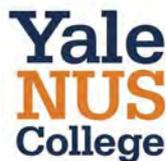
The entries were judged by senior university leaders and staff from *The New York Times*' award-winning newsroom. Students from the University of Washington in Seattle, Katherine Crosman, Leah Johnson, Eleni Petrou, and Hillary Scannell, were awarded first place in the 2017 competition for their case entry, *Safeguarding U.S. West Coast Communities from a Warming Climate*. 1st Runner-Up was Stephanie Chee from Yale-NUS College.

The winning policy brief was published in the international edition of *The New York Times*, reaching a global audience.



FIRST PLACE

Katherine Crosman, Leah Johnson, Eleni Petrou, and Hillary Scannell
University of Washington



1ST RUNNER-UP

Stephanie Chee
Yale-NUS College



2ND RUNNER-UP

Nicole Lim
National University of Singapore

Shortlisted Teams:

Carlos Arcenas and Benjo Buensuceso
Ateneo de Manila University and University of the Philippines

Rebecca Isjwara and Joo Eun Kim
The Hong Kong University of Science and Technology

David Lloyd Hare
The University of Auckland

James Halpin
The University of Auckland

Eugenio Ascanio Carrera
University of California, San Diego

Michael Dello-Iacovo
UNSW Sydney

Guadalupe Lazaro, Feroz Khan, Kaushik Swaminathan and Peter Lewis
Yale-NUS College

Winners of the 2017 APRU - The New York Times Case Competition, Katherine Crosman, Leah Johnson, Eleni Petrou, and Hillary Scannell, tell us about their winning submission and how the competition has enhanced their studies.

Can you tell us about your winning entry?

We chose to address the impacts of the 2015 harmful algal bloom off the U.S. West Coast. This event occurred in our own backyard and we saw first-hand the impacts on our communities, economy, and marine ecosystem. It sparked great attention in the region due to its devastating impacts along the West Coast and through its connection to climate change occurring in the Pacific Ocean.

What was your biggest takeaway from the project?

Understanding how complicated it is to address the effect of ocean change on local communities. We learned that this requires deep knowledge across a range of disciplines. In writing this report, we tapped into the pre-existing expertise of scientists, fishery managers, economists, and policy-makers local to our region.

Has participating in the competition had a positive impact on your studies?

For those of us who were newer in considering how to make research policy relevant, it gave us a new focus for our own research and encouraged us to create output that could be used by a different audience. For those of us already working across disciplines in our own research, this experience reinforced our intention to continue to collaborate across disciplines in the hope of creating actionable, decision-relevant science.

How did the competition complement what you are currently learning?

Our studies are unified through understanding the connections between society and ocean change. Each of us works on projects with overlapping interests and come from different departments on campus, including the School of Oceanography, School of Aquatic and Fishery Sciences, and the Evans School of Public Policy and Governance. The competition allowed us to integrate and exchange our own expertise in ocean science and public policy to address climate change occurring in the Pacific Ocean.

What was the biggest highlight of taking part in the competition?

The opportunity to work with this interdisciplinary group of graduate students. We were joined through our connection to the Program on Climate Change and IGERT Program on Ocean Change. The success of the team can be attributed to the strength of these UW departments, as well as the university's effort to harbor collaboration across disciplines.

Would you recommend the case competition to others?

We would highly recommend others to participate, as it provides a great opportunity to collaborate across campus and think critically about how to tackle resource management problems. Initiatives like this are important because they stimulate interdisciplinarity, and encourage applied thinking and creative solutions to complex real-world problems.

WHAT'S NEXT? 2018 APRU - THE NEW YORK TIMES COMPETITION

In 2018, we will again partner with The New York Times in asking students to present policy papers which analyze the fast-evolving landscape of artificial intelligence and data science. We will ask students to discuss the opportunities that will benefit society, as well as the opportunities for understanding how policymakers, businesses, and governments can work together to mitigate the risks of powerful new technologies.

ASIA-PACIFIC CHALLENGES



Asia-Pacific Women in
Leadership

Digital Economy

Global Health

Multi-Hazards

Pacific Ocean

Population Aging

Sustainable Cities and
Landscapes

Program Hub Leaders



TIPPING THE GENDER IMBALANCE

ASIA-PACIFIC WOMEN IN LEADERSHIP

Today, universities around the world grapple with systemic gender inequality and women are chronically underrepresented in university leadership positions. While progress has been made, challenges remain to remedy the complex social, cultural, and economic barriers to gender equality. Universities have a responsibility – as community leaders – to highlight the importance of addressing inequality through taking their own steps to meet this goal.



WHY OUR WORK MATTERS

APRU is committed to redress the gender imbalance and accelerate change in gender diversity and inclusion. The equal participation of women and men in academic institutions delivers benefits in terms of available talent and improving the relevance and quality of science and research. Improvements in gender equality translate into a positive impact on the substance and shape of academia and enhance the institutional competitiveness of APRU universities.

Expanding Our Influence

APWiL WORKSHOP

The annual Asia-Pacific Women in Leadership Workshop took place at the University of Sydney November 1-3, 2017. Delegates from 18 universities across 9 countries and representatives working both within and outside of academia shared experiences in solutions-based workshops and keynote addresses.

CONTEXT IS KEY

Sessions at the event prompted important conversations on pressing gender issues. The various contexts in which the drive for gender equity takes place is a key consideration across APRU member universities. We need to consider the individual challenges facing universities due to a wide disparity in resources and the varying levels of development of the solutions available across the network. As well as solutions and best practice, the roadblocks that inhibit women being promoted to full professor were discussed and factors such as race and cultural challenges facing individuals formed a key part of the discourse.

MEN AS ALLIES

Professor Terry Au, shared Hong Kong University's experience participating in the UN HeForShe campaign, which included workshops and Town Hall Meetings. Professor Au provided examples of how these initiatives were helping to champion diversity and inclusion and the importance of buy-in from all genders when furthering diversity.

KEY QUESTIONS EMERGING FROM THE WORKSHOP

How does APWiL accelerate change, especially in economies that need it most?

What are the opportunities moving forward for collaboration?

STORYTELLING MEETS DATA

Professor Jane Latimer, from Sydney University's School of Public Health, emphasized the need for both data and storytelling to advance gender equality in her keynote address. This sentiment was echoed by fellow speaker, Lieutenant General David Morrison AO, who stated that the personal stories he heard from female soldiers changed his life during his time as Chief of Army. Giving a higher education perspective, the session's Chair, Professor Katherine Belov, Pro-Vice-Chancellor (Global Engagement) at the University of Sydney, shared her first-hand experience as the first female to be promoted to professor in the University's Faculty of Veterinary Science.

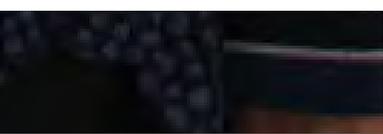
"We don't take action because of the statistics we've read... we take action because of our interactions with other human beings."
PROFESSOR JANE LATIMER

SHARING BEST PRACTICE

Findings were shared from Sydney University's Science in Australia Gender Equity (SAGE) trial initiative. Modeled after the UK Athena SWAN program, the initiative works to address gender equality across a number of areas. The session highlighted the benefit of best practice sharing to replicate success and the benefits of connecting people, initiatives, and institutions for knowledge and learning processes.

2018 GENDER GAP SURVEY

In 2013, a report by APRU surveyed 45 leading universities in the Asia-Pacific region. It found that for every female manager at the university executive management level, there were three males in similar positions. In October 2018, an updated edition of this report is due to be published, which will provide visibility and recommendations on removing remaining barriers and challenges. The updated report features a broadened scope beyond the APRU network to include 17 additional universities from India, UK, South Africa, and Europe.



RESPONDING TO THE DIGITAL TRANSFORMATION

DIGITAL ECONOMY

The digital economy and frontier technologies are bringing paradigm shifts in society and will bring many benefits, having a far-reaching impact on all disciplines, industries, and society at large. They also have the potential to divide populations. Under some circumstances, the technologically empowered elite would monopolize economic and political power while the majority would have limited access to credit, public services, and health care.

³ Alton, Larry. (2017, June 9) AI's \$37 billion market is creating new industries. VentureBeat. Retrieved from <https://venturebeat.com/2017/06/09/ais-37-billion-market-is-creating-new-industries/>

⁴ Nelson, Patrick. (2016, December 7) Just one autonomous car will use 4,000 GB of data/day. NetworkWorld. Retrieved from <https://www.networkworld.com/article/3147892/internet/one-autonomous-car-will-use-4000-gb-of-dataday.html>



THE DIGITAL ECONOMY



Size of the artificial intelligence market in 2025: \$37 billion.³



Data generated by a self-driving car per day: 4TB.⁴



Computing power doubles every 18 months.⁶



The world's stock of data doubles every 20 months.⁷



By 2020, 20 billion devices will be connected to each other.⁸



The world's data centers consume 2.6 times the electricity of New York City.⁹

WHY OUR WORK MATTERS

With the exponential speed of technological advancement, informed policymaking becomes increasingly complex. Without inclusivity at all levels of society, the revolution will fail the very people it should benefit the most. It is essential that we come together as a community of thought leaders alongside industry and government to ensure the trajectory of policy surrounding the digital economy is a tool for positive change. We need to work collaboratively to make certain the huge benefits of technological innovation go to those who need them most, not only to those who can pay for them.

³ Manyika, James and Susan Lund, Michael Chui, Jacques Bughin, Jonathan Woetzel, Parul Batra, Ryan Ko, and Saurabh Sanghvi. (2017 November). What the future of work will mean for jobs, skills, and wages. McKinsey Global Institute. Retrieved from: <https://www.mckinsey.com/global-themes/future-of-organizations-and-work/what-the-future-of-work-will-mean-for-jobs-skills-and-wages>

⁶ Chui, Michael, and James Manyika, Jacques Bughin, Brad Brown, Roger Roberts, Joi Danielson, Shalabh Gupta. (2013 May) Ten IT-enabled business trends for the decade ahead. McKinsey Global Institute. Retrieved from: <http://www.mckinsey.com/industries/high-tech/our-insights/ten-it-enabled-business-trends-for-the-decade-ahead>

^{7, 8, 9} Evans, Peter C. and Marco Annunziata. (2012, November 26). Industrial Internet: Pushing the Boundaries of Minds and Machines. General Electric. Retrieved from: http://www.ge.com/docs/chapters/Industrial_Internet.pdf





Expanding Our Influence

ARTIFICIAL INTELLIGENCE POLICY-INDUSTRY PARTNERSHIP

Ensuring equitable outcomes requires active engagement with the ICT sector. In December, 2017, APRU initiated a partnership with Google on the exploration of artificial intelligence policy issues. The project will see the production of two policy research projects. The first focuses on the social implications of artificial intelligence and the future of work, the second project seeks to understand how society can maximize artificial intelligence's potential for an equitable future.

Collaborators from the APRU network began working on the first project, *AI for Everyone: Benefitting From and Building Trust in the Technology*, holding the first workshop on artificial intelligence accessibility and governance on December 1, 2017, at Keio University, Tokyo; co-chaired by artificial intelligence experts Professors Jiro Kokuryo (Keio) and Toby Walsh (UNSW Sydney). The project will deliver a series of working papers, resulting in policy recommendations to be published and widely disseminated to governments and civil society. APRU member institutions include Far Eastern Federal University (Russia), Peking University (China), The Chinese University of Hong Kong, National University of Singapore, Tecnológico de Monterrey (Mexico), Fudan University (China), Universidad de Chile (Chile), UNSW Sydney (Australia), and The Hong Kong University of Science and Technology.

The second joint APRU-Google project, *Transformation of Work in Asia-Pacific in the 21st Century*, has convened its first face-to-face meeting involving seven academics from APRU member universities and international institutions across the region. The aim of the project, which is hosted by the Hong Kong University of Science and Technology (HKUST) and led by Professor Kar Yan Tam, Dean of HKUST Business School, is the

production of a comprehensive joint report that analyzes the transformation of society and provides policy recommendations. APRU member universities and an academic institution participating in the project are Seoul National University, Yonsei University (Korea), UNSW Sydney (Australia), University of Tokyo (Japan), Asian Institute of Management (Philippines), National University of Singapore (Singapore) and the Hong Kong University of Science and Technology.

THE DIGITAL ECONOMY OFFSITE

The third APRU Digital Economy Business Offsite took place at Stanford University in Palo Alto, California, on May 25-26, 2017, with the cooperation of Stanford's U.S.-Asia Technology Management Center. With the increasing trend of unilateralism in the region, and with the U.S. and Europe focused inward, this conference was a timely moment for the academic and business communities to explore increased cooperation for a digital, economic, and trade agenda for the region.

From this year's business offsite, it was clear that technology will continue to drive change. But how this will be managed institutionally by national governments and regional organizations is less clear. Offering a platform for open discussion and engagement, the two-day program facilitated the exchange of views and keynote presentations from experts in their field.

Discussions included the challenges governments face in minimizing the vulnerabilities of current networks, how trade agreement trends are moving beyond goods and services to cover "data flows", and what a digital trade agreement could look like for the Asia-Pacific region.

GOOGLE PARTNERSHIP AT A GLANCE

- US \$380,000 funding.
- 12 academic working papers, one comprehensive collaborative study and 2 sets of policy papers with key focus on APAC region.
- 23 collaborators from 14 APRU Member Universities.

OBJECTIVES:

AI for everyone: benefitting from and building trust in the technology

- Increase access to the benefits of artificial intelligence.
- Build awareness about the nature of the technology.
- Disseminate key findings feeding into policy discourse and dialogue.

Transformation of Work in Asia-Pacific in the 21st Century

- Understand digital technology, automation its challenges and its benefits in relation to the future of work.
- Inform the discussion on possible direction and solutions to address challenges.
- Publish and widely disseminate a data-driven study.



BUILDING HEALTHIER SOCIETIES

GLOBAL HEALTH

Across the Pacific Rim, divides persist in access to healthcare, life expectancy, and in the level of progress towards meeting healthcare challenges. At the same time, with rapidly shifting societal and demographic trends, all countries face challenges of a changing planet—from the growing burden of disease to the rise of noncommunicable diseases and the burdens of environmental degradation.

WHY OUR WORK MATTERS

Health is integral to building stable and sustainable societies. In an era of globalization, health determinants, risks, and outcomes cannot be geographically confined – health policies have local, regional, and even global implications. Through collaboration and enhancing regional dialogue the **APRU Global Health Hub led by the University of Southern California's Institute for Global Health**, works to bridge the health divides by promoting and protecting population health and meeting shared health challenges.



Expanding Our Influence

RECORD ATTENDANCE AT GLOBAL HEALTH CONFERENCE

The 2017 Global Health Conference was hosted at the University of the Philippines, Manila from October 16-19. With the theme, *Cancer and Environmental Exposure*, the 11th edition of this annual event drew its largest number of participants, welcoming a total of 334 attendees from 19 economies.

At the conference, a special half-day workshop took place focusing on human migration and health. As a result of urbanization, labor migration, and international migrants, the intensification of population mobility in the region raises a range of health policy challenges. Participants at the workshop committed to supporting policy frameworks to protect migrant health, ensure research in this area is communicated to policymakers, and to share best practices and collaborate on health promotion for migrants.

STUDENT COMPETITIONS FOR FURTHER LEARNING

Each year, the Global Health Hub initiates a number of competitions to encourage students to use their critical thinking skills to tackle a real-world challenge. This year's Student Poster Competition received 18 entries from 11 universities.

STUDENT POSTER COMPETITION WINNERS

UNDERGRADUATE

- 1st Place: Taehyun Kim, Hyeonseok Koh, Jinyoung Sohn, and Sunghyun Kim, Seoul National University.
- 2nd Place: Serge Jean Paul Ndashimye, University of Rwanda.
- 3rd Place: Haven Nisly, Ashen Parikh, and Audrey Nguyen, University of California, Los Angeles.

GRADUATE

- 1st Place: Justin Trop, University of Southern California.
- 2nd Place: Fan-Ju Hsiao, National Taiwan University.
- 3rd Place: Nurul Syafika A.H., University of Malaya.

GLOBAL HEALTH VIRTUAL CASE COMPETITION WINNER

The second annual Global Health Virtual Case Competition, *Promoting Smoke-Free Campuses in the Pacific Rim*, took place in April 2017. The 38 teams from 19 universities had two weeks to prepare a 10-minute video proposing a realistic, well-designed, and innovative tobacco control solution. Videos were judged by APRU GH Advisory Group members and the winner received a US\$500 prize.



1st Place:
University of Indonesia.

METHODOLOGY

Research Design: Descriptive-correlational study using a survey questionnaire.

Settings: Government tertiary hospital of Manila.

Sample: Purposive sampling of RNs employed in selected wards in said hospital.

Methodology:

- Adapted "Professional Nurses' Diabetes KAP Questionnaire" by Hasan(2016)
- Underwent pretesting, validity and reliability testing Cronbach alpha score: 0.70
- Received ethics approval from LIP Manila-Research Ethics Board
- Coordinated with LIP-PGH Expanded Hospital Research Office and relevant offices of hospital
- Distributed questionnaires to 4 Medicine wards, 3 Surgical wards, 2 ICUs and 1 OPD
- Sample size of 147 out of 194 (76%) eligible RNs participated

Figure 1. Diagrammatic workflow of methodology.

Statistical Analysis: Distributions of KAP of RNs were analyzed using frequency counts. The differences in KAP of RNs based on the area where they work were determined through Chi-square test with an alpha=0.05 level of significance. Also, to determine differences in knowledge scores of RNs by clinical area, an Independent Samples T-test was performed.

RESULTS

Knowledge: Majority of the RNs (70.7%) had moderate level of knowledge with a mean score of 21.88; (SD=3.43). Of the 4 clinical areas, nurses who had the highest scores are from the Medic...

Practices: Most of the RNs (35%) reported they *always* perform the 37 practice items in questionnaire : including administering medications and insulin therapy (63%). On the other hand, item on providing advice to drink alcohol in moderation was reported *never* done (13%).

Figure 4. RNs' self-care practices by clinical areas, Manila, 2017.

Promotion of Self-care Behavior: Of the 7 self-care items on promoting self-care behaviors, the most reported practice were *providing health education on monitoring BP* (49%) and *blood glucose* (46%). Least practice were *advice regarding alcohol drinking* (20%) and *exercise* (18%).

CONCLUSION

Majority of RNs have moderate knowledge level, have positive attitude on diabetes care and *always* perform diabetes management practices. Conducting health education on BP and blood glucose monitoring is the most performed aspect of practice which promotes self-care behavior.

RECOMMENDATION

The researchers recommend that training of RNs should be given focus to the practices that they least do, which includes providing advice on moderate alcohol drinking. This study can be replicated in other hospitals to determine similarity and differences of RNs' KAP.

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FOOSHION: Food Sharing Revolution as Innovation Technology of Food Waste Reduction based on Community Participation

INTRODUCTION

30% Food produced worldwide being wasted

1/6 Indonesians are in the condition of hunger

RESULT AND DISCUSSION

The paper presents the concept of the Fooshion (Food Waste Sharing Innovation) as a strategy to reduce food waste and address the problem of food waste in Indonesia. Fooshion is an innovative system that integrates technology and community participation to reduce food waste and address the problem of food waste in Indonesia. The system consists of a mobile application that allows users to report food waste and receive information on how to reduce food waste. The system also provides information on the location of food waste collection points and the schedule of collection. The system is designed to be user-friendly and easy to use. The system is currently being tested in a pilot area in Jakarta, Indonesia. The results of the pilot study show that the system is effective in reducing food waste and increasing community participation. The system is expected to be implemented nationwide in the near future.

METHODS

The study of literature review using reference sources published in Indonesian and English. Types of data: Secondary Data (Literature Review, Interview, Focus Group Discussion, and Case Study). Primary Data (Interview, Focus Group Discussion, and Case Study).

CONCLUSION

1. The concept of FOOSHION reduces food waste and increases community food security by starting from education.

2. FOOSHION is an integrated innovative system that helps reduce food waste through innovative technology with smartphone application and food bank.

3. FOOSHION has a wide impact on the environment, community, and economy.

4. Education, the most important part of the implementation of FOOSHION, is the key to the success of the implementation of FOOSHION.

REFERENCES



GLOBAL HEALTH LIVE! EXPANDS COURSES

In 2017, the Global Health Hub featured two distance education courses in Global Health Leadership and Global Health Ethics – augmenting student education through distance-learning tools. These innovative and free courses run throughout a semester and see students from participating universities attend a virtual classroom for a weekly webinar. Students participate in a live lecture and discussion session given by a world-renowned global health leader from either the World Health Organization, a government, NGO, or the private sector. For students and faculty, these courses are an avenue to build their global network for practical experiences, job opportunities, and research collaborations, respectively.

APEC: HEALTHY WOMEN, HEALTHY ECONOMIES

Alongside the APEC Senior Officials' Meetings, global experts convened at a workshop in Ha Noi, Viet Nam to share lessons and implementation experiences of the Healthy Women, Healthy Economies toolkit.

APRU Global Health Program Director, Professor Melissa Withers, was one of the expert presenters at the workshop. Professor Withers highlighted how university research is supporting the implementation of health and wellness strategies in the workplace and how these institutions act as leaders in closing the gender gap in terms of health inequalities, "Universities have a unique role to play in terms of providing an evidence base for what works for employee wellness programs. But also, as some of the largest employers in their cities, they can take important steps to promote the health and well-being of their own employees."

"My biggest takeaways from this course were learning how to work with a diverse group of health professionals and how to professionally communicate in group settings."

HRANT GEVORGIAN, ASPIRING PHYSICIAN AND PARTICIPANT OF THE GLOBAL HEALTH LIVE! COURSE

NEW GH WORKING GROUPS: BIOETHICS AND MIGRATION

The Global Health Hub's seven working groups meet throughout the year to discuss vital thematic healthcare topics. Comprised of individuals from across disciplines and countries, each group collaborates to produce research, small-scale case studies, and contribute papers to scientific journals. This year, the GH added two working groups – Bioethics and Migration – reflecting on the change in key health issues facing the region.



Observers view student posters at the 11th Global Health Conference on October 16-19, 2017 hosted by the University of the Philippines.

PUBLICATIONS

- The members of a special working group on **air pollution** collaborated over a two-year period to research current air pollution regulation practices in the region and developed recommendations on how to improve these practices. In 2017, their findings were published in the Journal of Air Quality and Atmospheric Health, "**Regulation of Fine Particulate Matter: Perspectives from the APRU Global Health Program.**"
- In November 2017, the article "**Best Practices in Global Health Practicums: Recommendations from the Association of Pacific Rim Universities**" was published in the Journal of Community Health. The article is based on workshops on the same topic held at the annual conferences in 2014 and 2015 and presents recommendations on how to develop and run a successful global health practicum program.

SUPPORTING THE NEXT GENERATION OF GLOBAL HEALTH LEADERS

A vital goal of the Global Health Program is to further education and use the network to develop student activities. Mellissa Withers, Ph.D., APRU Global Health Program Director, discusses the program's impact on student education.

How does the Global Health Hub support the development of the next generation of global health professionals?

The Hub is a catalyst for important scholarships as well as innovative educational opportunities for students. One example is the Virtual Case Competition, which generates creativity and fosters training and cooperation across the region. The Hub's broad range of Working Groups is another example. Through these groups, we give students the opportunity to collaborate with senior researchers from around the world.

In what other ways do students benefit from APRU's Global Health network?

The APRU network is a real asset to our students and it is continuing to grow. This year, we saw a record number of attendees at our Global Conference, with 340 participants

representing over 40 disciplines and 19 economies. We can draw on the breadth and depth of this growing network to facilitate student opportunities, internships, and research collaborations in ways students may not normally have access to. We have also been able to draw on the knowledge and experience of the network to develop a new textbook on Global Health Leadership, which will be published in the near future. It presents 13 real-life case studies from the public and private sector across the region and will be a highly valuable classroom tool for students.

How does the Global Health Program support student learning?

Our distance education courses are one of the most innovative, efficient, and effective ways we strive to meet the educational needs of Global Health students. In particular, students rave about our Global Health Ethics course, which has been running since 2016. Through the distance education course, students can participate in discussions with world-renowned speakers, supplementing their learning and adding a multicultural, multidisciplinary perspective to conversations around ethics. We have students tuning in from all over the world – law students in Mexico, public health students from USC and the Philippines, as well as biomedical engineering students in Hong Kong.

A SAFER FUTURE

MULTI-HAZARDS

The nations of the Pacific Rim must routinely deal with natural disasters. Earthquakes, volcanic eruptions, tropical storms and extreme weather, and tsunamis are among the most common threats facing those on the Ring of Fire – the consequence of powerful tectonic forces constantly reshaping the region and the growing impact of climate change.

WHY OUR WORK MATTERS

Today, a divide exists between the countries most impacted by natural disasters and those that have the technology and knowledge to mitigate them. In a region of inevitable disasters, improving the coordination and sharing of knowledge across borders is essential to build a safer, more resilient Asia-Pacific and to ensure disaster risk reduction is at its most effective. The **APRU Multi-Hazards Program Hub** hosted by the **International Research Institute of Disaster Science (IRIDeS) at Tohoku University** facilitates this sharing of knowledge to mitigate the impact of natural disasters across the region.



ASIA AND THE PACIFIC IS THE REGION MOST AFFECTED BY NATURAL DISASTERS



25,000 mile-long zone.¹⁰



90% of the world's earthquakes.¹¹



452 volcanoes.¹²



1.35 million lives taken by natural disasters in the past 20 years.¹³



Disaster science represents just 0.22% of the world's total scholarly output.¹⁴



40% of the world's natural disasters.



60% of global disaster deaths.



80% of storm mortality worldwide.



^{10, 11, 12} <https://news.usc.edu/87324/shakes-quakes-and-cyber-attacks-how-usc-helps-the-pacific-rim-prepare-for-disasters/>

¹³ https://www.elsevier.com/__data/assets/pdf_file/0004/541318/0638-Elsevier-Disaster-Science-Whitepaper-v6-LO.PDF

¹⁴ <https://www.elsevier.com/research-intelligence/research-initiatives/disasterscience2017>

DAVOS SENDAI



WORLD BOSAI FORUM

IDRC 2017 in SENDAI
International Disaster Reduction Centre



防災の学術動向というセッション
になります。そして、災害科学国
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す。この東北大学の助教授を務

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an event of a global, this is a large event of a recent greater
artwork of th



Dr. Takako Izumi at the World Bosai Forum, November 26, 2017 hosted by Tohoku University.



Expanding Our Influence

GNSS TSUNAMI EARLY WARNING SYSTEM WORKSHOP

From July 25-27, 2017 over 70 international experts from across the Pacific Rim gathered at Tohoku University to discuss the feasibility of developing a real-time Global Navigation Satellite System (GNSS) throughout the Pacific Rim. This cross-border initiative would rapidly capture the signals produced by an earthquake-generated tsunami for early warning capabilities.

The workshop, supported by NASA, Tohoku University, and UC Davis, evaluated the resources and data needed to develop a GNSS system, assessed and developed strategies to fill gaps in current Pacific-wide networks, and reviewed state-of-the-art early warning approaches with a focus on the emergency response community.

WORLD BOSAI FORUM, SENDAI JAPAN

From November 26-28, 2017 members from across the APRU network joined the International Federation of Red Cross and Red Crescent Societies (IFRC) and Elsevier to advance the UN Sendai Framework for Disaster Risk Reduction (DRR) at the inaugural World Bosai Forum. The event took place at Tohoku University, which was the joint organizer of the event, alongside APRU. The Forum is part of Japan's commitment to implement the Sendai Framework, which bridges the gap between DRR research and ground-level implementation.

At the Forum, APRU and its Multi-Hazards Program contributed to two key sessions. The first was a plenary session on The Knowledge Front of Disaster Risk Reduction, which showcased examples of how research networks are connecting with corporate and government actors to further DRR, and the importance of gaining input from actors across all levels and sectors to find workable solutions. The second was a thematic session on strengthening contributions to the international community through multidisciplinary disaster science research.

ANNOUNCEMENT OF ELSEVIER REPORT

During the opening plenary, Elsevier unveiled its report, *A Global Outlook on Disaster Science* published in partnership with APRU and the International Council for Science. The paper finds

that despite greater economic losses and the loss of life from natural disasters, many developing Asian countries publish fewer disaster science papers than less affected nations.

Dr. Takako Izumi, Program Director, APRU Multi-Hazards Program, at Tohoku University's International Research Institute of Disaster Science (IRIDeS), was involved with the report from the initial stage and offered her expertise in contextualizing the methodology and data presented in the report. From the APRU Multi-Hazards core group, Professor John Rundle of UC Davis also contributed his invaluable input toward the development of the report.

FORUM OUTCOMES

At the Forum, APRU signed an MoU with the IFRC. The move builds upon existing activities and signals the beginning of joint-efforts to build on research and pursue DRR advocacy.

"The MoU is quite literally the academics and practitioners coming together. In the past, scientific communities were too far removed from practitioners. We work on the ground, we work with people on the ground, so we can take the science and translate it into layman's terms and inform the public. We're trying to close the gap."

GWENDOLYN PANG, HEAD OF THE IFRC'S COUNTRY CLUSTER SUPPORT TEAM

2017 MULTI-HAZARDS WORKSHOP

The 13th APRU Multi-Hazards Research Symposium, entitled *Innovation and Management of Disaster Risk Reduction*, was held at Peking University on August 28-29, 2017. The symposium was hosted and organized by the Institute of Remote Sensing and Geographic Information Systems (IRSGIS), School of Earth and Space Sciences and co-chaired by Professor Yu Liu and Professor Qinghua Huang, from Peking University.

The symposium featured concurrent sessions, in which participants presented the most recent studies on disaster reduction education, infrastructure construction, post-disaster management, and disaster emergency rescue and recovery measures. The sessions resulted in a series of insightful debates, fueling ideas for future research and governance-based activities.

Takako Izumi, Ph.D., Program Director, APRU Multi-Hazards discusses the impact of the hub's work and the benefits of sharing best practice.

How do the Hub's initiatives facilitate knowledge-sharing of natural disaster best practices?

We recently held a two-day seminar in Sendai, Japan – a site majorly affected by the 2011 earthquake and tsunami. Academics, social scientists, and other experts were invited on a guided tour of the area to learn more about the damage to the region, the impact on local communities, and ongoing construction, including an insight on some of the more technical aspects of reconstruction such as seawall levels and DRR measures. Among many experts, the default thinking is that, in the face of a disaster, advanced infrastructure can protect people's lives. That said, the events in 2011 showed the risks associated with a dependence on infrastructure such as seawalls. The knowledge and decision-making of people on the ground was a determining factor in their safety and survival. Sharing this experience and challenging assumptions is essential to be better prepared for future natural disasters in the region.

How are the lessons learned from this disaster being used to help communities?

The education sector has a key role to play in preventing

hazards from becoming disasters. We collaborate with local partners to improve disaster education, applying science and technology to increase the quality of evacuation drills and help citizens make better decisions. This includes outlining the best evacuation routes and using computer simulations to emphasize the dangers associated with using a vehicle to evacuate. Universities can have a big impact by working with communities and governments to support these efforts at a local level.

What role does the wider APRU network play in sharing best practice on hazard reduction?

We can leverage the APRU network to share our findings to a broader audience, collaborate on essential research, and make a collective effort to positively influence DRR policy – something as a university that we cannot do alone. Sharing knowledge at international and regional levels trickles down to the national level, then on to local communities, having an indirect effect on people in affected regions. For example, we know that governments are often hesitant to spend a lot of money on DRR, but we can share case studies showing how DRR efforts are cost-effective and have a great impact on protecting people's lives. We can bring an evidence base to help governments make their investments more effective and deliver scientific evidence of how to best prepare for a disaster.

SUSTAINING AN OCEAN AT RISK

PACIFIC OCEAN

The Pacific Ocean sustains essential planetary systems from weather and rainfall to myriad species which themselves sustain the global ecosystem and human life. This vast ocean is over-exploited and at risk of dying within a human lifetime with catastrophic results. Yet we know so little about it scientifically and our policy leaders are not seized of the urgency of the task. Universities are called to use their research capabilities to show the big picture of what is happening and how we can sustain the Pacific Ocean as a critical source of life for the planet.

WHY OUR WORK MATTERS

The Pacific Ocean links the communities of the Pacific Rim, economically, socially, and environmentally. Reflecting on the crucial role it plays in sustaining life and the urgency with which we need to address its challenges, 2017 was the year that APRU placed the Pacific Ocean at the heart of its work.

APRU members undertake a wide range of research on the Pacific Ocean and yet, much is unknown about the deep ocean and its life forms. Better regulation of fishing, oil and gas extraction, and mining is urgently required. APRU is embarking on an ambitious agenda to galvanize global leaders to make the Pacific Ocean a policy priority and safeguard its future.

APRU'S COLLECTIVE PACIFIC OCEAN EXPERTISE



More than 50% of publications by APRU institutions on Ocean and Marine Science appear in the top 10 percentile of journals.²³



The scholarly output coming from APRU institutions has grown 8.2% over the past 5 years.²⁴

¹⁵ <http://facts.net/pacific-ocean/>

¹⁶ https://apru.org/images/2017-Winter-Forum_APEC.pdf

¹⁷ <http://www.worldbank.org/en/news/feature/2012/08/29/pacific-islands-the-ocean-is-our-mother>

¹⁸ <https://www.conservation.org/where/Pages/pacific-oceanscape.aspx>



THE PACIFIC OCEAN IN NUMBERS



Covers 28% of Earth's surface.



84,000 miles of coastline.¹⁵



5 continents, 50 countries and territories.¹⁶



60% of the world's annual fish catch.¹⁷



Absorbs 30% of the planet's carbon.¹⁸



Valued at U.S. \$24 trillion.¹⁹



Absorbs 26% of annual CO₂ emissions.²⁰



The ocean has absorbed > 93% of heat resulting from CO₂ emissions.²¹



Pollution has increased by a factor of 100 times over the last 40 years.²²

^{19, 20, 21} Lisa Levin ppt.

²² <http://facts.net/pacific-ocean/>

^{23, 24} https://apru.org/images/TP3/Pacific%20Ocean/Science_under_the_sea_copy.pdf



Expanding Our Influence

COMMITTING TO UNSDG 14

In 2017, APRU made a voluntary commitment to the United Nations' Sustainable Development Goal 14: to conserve and sustainably use the oceans, seas, and marine resources. In line with this commitment, this year APRU members continued to leverage their research capacity to raise awareness, encourage and support policy-makers, and work collaboratively towards the implementation of this objective.

ILLEGAL AND UNREPORTED FISHING

APRU is engaging in the policy-making process in APEC. At a meeting hosted by APEC's Oceans and Fisheries Working Group entitled *Experts Workshop on Illegal, Unreported, and Unregulated Fishing in the APEC Region*, held on April 27, 2018 in Singapore, APRU Director of Policy and Program's, Christina Schönleber, engaged

in discussions on the negative impacts on the social, environmental, and economic discourses of illegal and unreported (IUU) fishing. The primary objective was to ensure the long-term sustainability of fisheries and marine resources. The Experts Workshop provided an avenue for policy-makers, fisheries managers, academia, the private sector, and key stakeholders to discuss IUU fishing, and subsequently develop high-level policy directions for member economies to adopt and implement as is necessary.

FIRST PROJECT OF PACIFIC OCEAN CLUSTER

Ocean and Marine Science research is fundamental to the protection of the Pacific Ocean. 2018 sees the launch of the first Pacific Ocean Collaborative Cluster between the University of Washington and the University of



British Columbia, led by marine and science policy experts Yoshitaka Ota (UW), William Cheung (UBC), and Gerald Singh (UBC).

The project aims to enhance the sustainable development of coastal states, communities, and economies in the Pacific Rim and provide policy pathways to advance this objective specifically on SDG 14. The project includes a survey to collect, elicit, and export knowledge, an analysis of cooperation needs, and a workshop to share the outcomes. The survey will be distributed and findings presented among officials and delegates of the APEC Oceans and Fisheries Working Group.

LIFE BELOW WATER

In the winter edition of Forum Magazine, Secretary General, Christopher Tremewan, shed light on the role of universities in seeking

solutions to UNSDG 14. The article, Life Below Water, named after the SDG, emphasized the strength of universities to contribute to Pacific Ocean challenges, making use of APRU's extensive research capacity to engage with policy-makers globally. This includes translating scientific discoveries and advances into public information and coming together to take active leadership in seeking solutions.

"As the voice of knowledge and innovation in the Pacific, we will continue to use our unique geographical reach to bring together the region's leaders and brightest minds to address the future of the world's greatest ocean."

CHRISTOPHER TREMEWAN, LIFE BELOW WATER

AN AGING ASIA-PACIFIC

POPULATION AGING

The Asia-Pacific is undergoing profound demographic changes. By 2050, the world's aging population is set to triple, of whom half will reside in Asia. This demographic shift will have a huge effect on economies, livelihoods, and the makeup of societies – a phenomenon leaving no country in the region untouched.





WHY OUR WORK MATTERS

The Asia-Pacific needs to prepare for the onset of its aging societies. All countries of the Pacific Rim are experiencing aging, although varying in timing and pace. While many countries in the region have a relatively larger proportion of youth populations, they will still need to prepare for the eventual demographic shift, and can reap the benefits of best practice and knowledge sharing.

Expanding Our Influence

POPULATION AGING CONFERENCE

As family sizes shrink and longer lives challenge financial and social models across the Asia-Pacific, successful adaptation to aging requires resilience of the individual, family, and society. This was the major topic of the 8th Population Aging Conference: *Aging and Resilience in the 21st Century*, hosted by Duke-National University of Singapore on October 11-13, 2017, at the Centre for Aging Research & Education, with 200 speakers, guests, and delegates.

FEEDING INTO APEC POLICY DIALOGUE ON AGING

At the APEC International Workshop on Adaptation to Aging Issues in August 2017, in Viet Nam, Professor Barbara McPake from the University of Melbourne represented APRU, giving a presentation on the financial resources for social protection systems in aging societies, part of APRU's continued work to feed into the Health Policy Dialogue on Promoting Healthy Aging and Noncommunicable Disease Control.

PROGRAM HUB MOVES TO KEIO UNIVERSITY



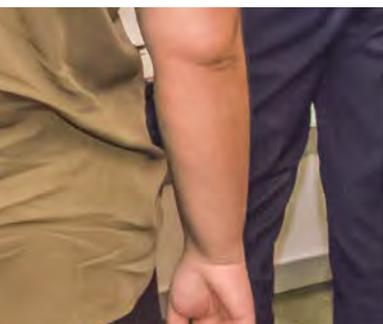
This year saw the migration of the **APRU Population Aging Program Hub to Keio University** in Tokyo, Japan. As an economy well-known

for its rapidly aging population, the future growth of the program can draw on Keio's strengths as home to both the Center for Supercentenarian Medical Research and the recently established Research Center for Financial Gerontology – centers that link research in medicine, economics, and engineering in its mission to address the challenges posed by an aging population. The Hub is led by Hiroki Nakatani, Project Professor of the Global Research Institute at Keio University.

LABOR MOBILITY COOPERATION RESULTS IN NEW PARTNERSHIPS

APRU experts have been actively involved with the development of the APEC Labor Mobility Cooperation: from the Labor Mobility Report by experts Rafal Chomik, John Piggott, and Peter McDonald, to presenting the findings at a Workshop on the Development of an APEC Labor Mobility Framework in Nha Trang, Viet Nam on February 18, 2017.

APRU's expertise and ongoing work in the field of population aging has presented new opportunities for partnerships. APRU is working closely with the Asia Development Bank (ADB) in the areas of aging, technology, and the impact on the labor market. An inception workshop to deepen understanding of the implications of population aging and technology on the productivity among countries took place in May, 2018.



SPOTLIGHT ON THE LABOR MOBILITY PROJECT

Australia took a lead role in collaborating with APEC member economies and APRU in developing the Labor Mobility Report. We talked to Jabulane Matsebula, International Strategies, Australian Government Department of Jobs and Small Business, on the impact of the report and the labor mobility challenges facing the region.

What expertise does APRU bring to the Labor Mobility Project? Why is the involvement of organizations like APRU important?

This paper focuses on changes in demographics in the region, population aging, and the impact on labor supply. APRU's involvement was essential in establishing a strong working relationship with scholars Professor John Piggot and Professor Peter McDonald, as well as commissioning those with expertise in demographics, labor migration issues, and the labor market more broadly to prepare the background paper. Through APRU, we were able to invite Professor Albert Park from the The Hong Kong University of Science and Technology to be a panelist during the Labor Mobility Workshop in Viet Nam. He delivered a useful perspective in terms of ongoing research on migration issues, particularly in China, and brought case studies to the workshop which enriched the discussion.

With demographic issues currently in the spotlight, this paper provides a baseline analysis of demographic shifts in the region. The report has also been used in other areas, including briefing Ministers in Australia on demographic shifts in the region, in other APEC meetings, and, most recently, in Papua New Guinea, where it generated a lot of interest among the 21 member economies. We were extremely happy with our collaboration with APRU, the quality of work delivered in a short time frame, and the presentation of the project outcomes at the workshop in Viet Nam.

What are the challenges that APEC countries will face when it comes to future labor mobility patterns?

The first challenge is the scarcity of comparable labor mobility data. The key objective for APEC is to collect and report labor mobility statistics that can be compared across the 21 member economies to inform business decisions and policy design. The second challenge is changing patterns in labor

mobility, which not only covers geographic movement but also the increase in virtual labor mobility – where people stay in their home countries but work for companies in other countries. Advancement in technology is fundamentally changing the nature of mobility itself. How do economies intend to regulate virtual mobility? Currently, there is no sufficient data on where people are working virtually across borders. In order for economies to regulate evolving labor mobility trends, deeper cooperation is needed to make those statistics available to shape policy reforms. The third challenge is that, in recent years, we have seen an increase in circular mobility, but not a great deal of work has been done in the area of reintegrating returning workers back into local labor markets. How can we develop effective labor market policies to assist returning workers reintegrating into local labor markets if we do not have sufficient evidence? We also need greater forecasting of employment opportunities and emphasis on social protection measures for workers moving across countries.

What are the biggest challenges facing policy-makers in developing an adequate framework?

Just as the industrial and social revolutions in the 18th and 19th centuries brought about huge technological and political changes, we are seeing similar levels of upheaval brought about by the digital age and demographic shifts. We should be talking about the twin-revolution (digital and demographic) and its impact on labor markets and economic growth in terms of labor supply. Labor mobility will play a role in supplying the skills and the labor that is needed in economies facing population aging and skills shortage.

The report laid the foundation for work in the region. Now the challenge for APEC is to deepen regional cooperation on the issues captured in the Labor Mobility Framework: data collection, building the evidence base, social protection, the portability of benefits, reducing the costs of mobility, reducing remittance transfer costs, qualification recognition, and improving the safety of workers moving across countries, particularly for women. With better cooperation, we can improve the region's competitiveness and the prospect of meeting headwinds, as outlined in the report. Improving the region's capacity to compete for human resources will become increasingly intense as more countries experience population aging and skills shortage.



CREATING LIVEABLE CITIES

SUSTAINABLE CITIES AND LANDSCAPES

As the world urbanizes and the human population grows, cities are expanding along with their footprints. Today, more people live in cities than in rural areas. As an urban species, it is imperative that we better understand the interaction of urban areas and the surrounding ecology for a sustainable future.





WHY OUR WORK MATTERS

The Asia-Pacific has one of the world's fastest rates of urbanization. The way in which this advances over the coming decades will greatly impact the sustainability of the planet as a whole. While cities across the Pacific Rim are diverse in their size and design, they are united by the shared challenges they face – from gentrification and spatial inequality to ecological degradation, loss of agricultural land, and extreme weather events. The **APRU Sustainable Cities and Landscapes Program Hub** hosted by the **University of Oregon** works to ensure that our cities can provide future generations with the same – if not improved – quality of life of residents today.



ASIA-PACIFIC TRENDS



50% of the Asia-Pacific population live in towns and cities.²⁵



By 2050, urban areas will account for nearly two out of three people.²⁶



By 2030, the region will have 22 megacities.²⁷



By 2025, urban areas will generate 5.2 million cubic meters of waste, up from 700,000 tons today.²⁸

^{25, 26, 27, 28} <http://habitat3.org/wp-content/uploads/Asia-Pacific-Region-Quick-Facts.pdf>



Expanding Our Influence

SUSTAINABLE CITIES & LANDSCAPES CONFERENCE

From September 15-17, 2017, The University of Oregon, hosted the inaugural APRU Sustainable Cities and Landscapes Conference. Over 120 people from 14 countries took part, from designers and urban planners to researchers and practitioners across many disciplines.

PLENARY

The conference plenary session provided an active platform to seek answers to social, urban, and landscape challenges. These discussions focused on the gap in relationships between academia, policy-makers, practitioners, and the general public. Participants agreed that building collaborations between researchers, practitioners, businesses, government agencies, NGOs, and citizens was critical to making on-the-ground change. 'Advocacy' was a recurring theme throughout the conference, and attendees recommended an inclusive, innovative, and collaborative framework

that incorporates social activism, long-term vision, and government engagement.

LIGHTNING TALKS AND PANEL DISCUSSIONS

Exploring the evolving relationship between cities and landscapes, lightning talks drew from a range of examples from around the Pacific Rim and reinforced the benefit of sharing diverse challenges to seek shared solutions.

Professor Helen Lochhead, UNSW Sydney, discussed the issues facing harbor cities such as Sydney, while Professor Makena Coffman, UH, used Honolulu, Hawai'i as an example of how coastal communities and Pacific Islands must adapt to rising sea levels and other climate change impacts.

Chun-Yen Chang, National Taiwan University, emphasized that evidence-based design is critical in promoting health, drawing on examples from dense East Asian cities. Professor Mathew Pryor,

Pacific Rim – the ring of fire



Map of earthquakes, tsunamis and volcanic events.
Source: historical events from www.preventionweb.net (UNISDR)



The University of Hong Kong, encouraged participants to learn from cities such as Hong Kong, where efficient use of land helps protect its extensive natural environment. Finally, Professor Beatriz C. Maturana, University of Chile, shared her thoughts on how policies and media can advocate for positive actions that respond to climate change and social segregation.

WORKING GROUPS

Ten working groups – from sustainable urban design to sanitation and waterfront development – offered a space to delve deeper into pressing issues relating to city-landscape sustainability. Discussions focused on best practices in the Pacific Northwest and across the Pacific Rim.

OUTCOMES

POSITION PAPERS

Each of the Working Groups outlined a position paper on their topic based on session discussions. The ten position papers will be combined to create a publication establishing an agenda for future work.

RETHINKING THE STREET IN AN ERA OF DRIVERLESS CARS

A report by Marc Schlossberg, William Riggs, Adam Millard-Ball, and Elizabeth Shay presented ideas about how city planners, policymakers, and community residents can begin to think about street transformation in an autonomous vehicle era. Autonomous vehicles offer an entry point into society-wide conversations about transportation, functions of cities, use of streets, and how all of this impacts equity, environment, social cohesion, happiness, economic health, resiliency, and more. This report is available as a part of the *Urbanism Next* research series. *Urbanism Next* – part of the University of Oregon's Sustainable Cities Initiative (SCI), focuses on how autonomous vehicles, e-commerce, and the sharing economy will influence the form and function of cities, or the "secondary effects" of these technologies on how and where we live.

PROGRAM LEADERS

Asia-Pacific Women in Leadership

Jenny Dixon, University of Auckland (Chair)
Luisa Chang, National Taiwan University
Kyoko Ishida, Waseda University
Mayumi Ishikawa, Osaka University
Lynn K Gordon, University of California, Los Angeles
Prem Ramburuth, UNSW Sydney
Geri Richmond, University of Oregon
Hideko Sumita, Keio University
Madoka Takai, University of Tokyo

Digital Economy Project Leaders

Jiro Kokuryo, Keio University
Toby Walsh, UNSW Sydney
Kar Yan Tam, The Hong Kong University of Science and Technology

Global Health Program Hub

Host: University of Southern California

Heather Wipfli, University of Southern California (Chair)
Mellissa Withers, University of Southern California (Program Director)
Chang Chuan Chan, National Taiwan University
Masamine Jimba, University of Tokyo
Judith McCool, University of Auckland
Juhwan Oh, Seoul National University
Erlinda Palaganas, University of Philippines
Richard Taylor, University of New South Wales
Leonel Valvidia, University of Chile
Bambang Wispriyono, University of Indonesia
Pinpin Zheng, Fudan University

for advancing AI

Sustainable Cities
- Design Field Sch

2018





Population Aging Program Hub

Host: Keio University

Hiroki Nakatani, Keio University (Chair)
John Piggott, UNSW Sydney
Hiroko Akiyama, The University of Tokyo
Angelique Chan, National University of Singapore
Eileen Crimmins, University of Southern California
Robert Cumming, University of Sydney
Lin Ka, Zhejiang University
Peter McDonald, University of Melbourne
Albert Park, Hong Kong University of Science and Technology
Tri Budi W. Rahardjo, University of Indonesia

Multi-Hazards Program Hub

Host: Tohoku University

Yuichi Ono, Tohoku University (Chairperson)
Takako Izumi,
Tohoku University (Program Director)
Fumihiko Imamura, Tohoku University
Teruyuki Kato, University of Tokyo
Denise Konan, University of Hawai'i, Manoa
Benito M. Pacheco, University of the Philippines
Hugo Romero, University of Chile
John Rundle, UC Davis
Kuniyoshi Takeuchi, Professor emeritus of Yamanashi University
Yih Chi Tan, National Taiwan University
Supot Teachavorasinskun, Chulalongkorn University
Hui Zhang, Tsinghua University

Sustainable Cities and Landscapes Program Hub

Host: University of Oregon

Bart Johnson, University of Oregon (Chair)
Yekang Ko, University of Oregon (Program Director)
Marina Alberti, University of Washington
Chun-Yen Chang, National Taiwan University
Linda Corkery, UNSW Sydney
Robert Dyball, Australian National University
Dennis Galvan, University of Oregon
Jie Hu, Tsinghua University
Stephanie Pincetl, University of California, Los Angeles
Matthew Pryor, The University of Hong Kong

*** APRU International Secretariat is an ex officio member of all program committees. Usually relegated by the Secretary General or the Director, (Policy and Programs).**

SHAPING HIGHER EDUCATION



Provosts' Forum

Vice-Presidents for
Research Meeting

Undergraduate Leaders'
Program

Senior International
Leaders' Meeting

International Policy Advisory
Committee Meeting



THE FUTURE OF THE UNIVERSITY

PROVOSTS' FORUM 2018

The 4th biennial Provosts' Forum took place from March 11-13, 2018, at The University of Hong Kong (HKU). Under the theme *The Future of the University*, APRU Provosts touched upon state and private funding, relations with government, nationalism and international academic activities, the influence of the technology boom on the future of higher education, and the social responsibilities of universities.

MEETING OUTCOMES

A landmark APRU Provosts' Statement was published on the basis of the two-day forum, which highlights the areas in which APRU universities can network and collaborate, facilitating student and faculty mobility across the network and promoting multi-disciplinary and cross-border collaboration.

HKU Acting President and Vice-Chancellor and Provost, Professor Paul Tam, extended a warm welcome to the gathering Provosts and academic leaders of 24 member universities around the world before delegates initiated discussions on shared challenges across three main areas.

FUNDING CHALLENGES

Many universities across the Pacific Rim are struggling to maintain a balance between state support and the independence of academic research. Professor Ralph Hexter, Provost of UC Davis, shared a perspective from the U.S., outlining the increasing privatization of higher education institutions due to declining government interest in public investment.

Other emerging funding challenges are a product of a more divided and nationalistic global environment. Professor Andy Hor, Vice-President (Research) of HKU, shared his concerns on the conflicting priorities of universities and the ability to secure resources from the government for internationalization goals since, "[The city's government] cares about how much money is spent on local students in particular."

INTERNATIONAL STUDENT EXCHANGE

The rising trend of nationalism is having an impact on international student exchange and study abroad programs. Professor Chen Chusheng, Vice-President of the University of Science and Technology of China, shared how the university is responding to student reluctance to pursue overseas programs by attracting more students to participate in summer exchange programs to broaden their horizons.

Similarly, tightening and increasingly less welcoming immigration policies across the region are having an impact on a number of members, particularly in Australia where there is concern that universities are "too successful" in terms of attracting international students, and have become financially dependent on international investment when doing research.

STUDENT PARTICIPATION IN EXPLORING THE FUTURE

With rapid rates of technological advancement changing the needs of the labor market, many delegates advocated that teaching styles should be more student-oriented. This would allow a better understanding of students and their choice of a particular university. Professor Rosa Devés, Vice-President of Academic Affairs of the University of Chile, pointed out that student participation is crucial in determining how universities should adapt to changes in society and that the key to the development of universities is "to give students a voice [and] look at the future together with them."

At the end of the two-day event, a strong theme that had emerged was the need for all universities to give more thought in presenting the social and economic value of their research to the public and the service they provide to communities.

"We are trying to help [the faculties] understand that the world is not the way it was when they were students, and just teaching in the same way they were may not necessarily lead to success for their students."

RALPH HEXTER, UC DAVIS

ENHANCING THE ROLE OF UNIVERSITIES IN INNOVATION AND ENTREPRENEURSHIP

VICE-PRESIDENTS FOR RESEARCH MEETING 2017

The third annual APRU Vice-Presidents for Research Meeting was hosted by Nanjing University (NJU) from May 19-22, 2017 in Nanjing, China. With the theme *Enhancing the Role of Universities in Fueling Innovation and Entrepreneurship*, the meeting focused on topics at the heart of the APRU agenda and was attended by over 40 research leaders and senior administrators from APRU universities and other higher education institutions.

Speakers from government, academia, and other research institutions delivered insights into various innovation and entrepreneurship topics. Professor Pan Yi, NJU Vice-President, began the meeting by introducing the university's exemplary cases in commercialization, innovation, and entrepreneurship.

Attendees also heard a keynote address from Professor Wu Yuefang, Vice-President of the University of Chinese Academy of Sciences (UCAS). Professor Wu shared insight into the unique position and mission of UCAS in promoting the nation's innovation and technology in addition to the training of talent through its academic curriculum.

Discussions included ideas on promoting technology transfer in universities to benefit society, different education models available to further innovation and research, and the fundamentals of promoting innovation and entrepreneurship in universities. Mr. Zhang Jianhua, Director of the Department of Science and Technology, Ministry of Education, PRC, provided a detailed account of the innovation and technology of Chinese universities in his address to delegates.

As the event's proceedings drew to a close, Professor Sandra Brown, Vice-Chancellor for Research, UC San Diego, extended a warm invitation to all participants via a video to join next year's meeting in the U.S. The event also included a visit to the Jiangsu Industrial Technology Research Institute, to see scientific and technological achievements in Jiangsu province and the drive of research institutes in fostering innovation in the region.

Professor Pan Yi, Nanjing Vice-President welcomes participants to the Vice-Presidents for Research Meeting.



GLOBAL CHALLENGES FOR A NEW GENERATION IN THE ASIA-PACIFIC REGION

UNDERGRADUATE LEADERS' PROGRAM

The 2017 Undergraduate Leaders' Program was held in Vladivostok, Russia from July 1-12. Host of the program, the Far Eastern Federal University (FEFU), welcomed an international group of over 50 students from various corners of the globe, including Canada, China, Hong Kong, Japan, Korea, New Zealand, Singapore, the United States, and Russia.

The theme this year was *Global Challenges for a New Generation in the Asia-Pacific Region*. Organized in collaboration with the Model United Nations of the Russian Far East, the program enabled students to gain greater awareness of the United Nations' Sustainable Development Goals, complementing the discussion that took place at the 21st APRU Annual Presidents' Meeting.

Lectures and seminars on each day of the program were devoted to a unique theme: historical and cultural development of the Asia-Pacific region, international relations, global climate change, the Arctic, innovation, and health. This was combined with cultural and

social activities to explore Russian culture, including a bus tour of Vladivostok City, a visit to Okean National Children's Summer Camp, and making *Pelmeni* (Russian dumplings).

Teams this year were challenged to develop an innovative project to address sustainability issues. The winning team "Green Spot" impressed the judges with their idea of creating an app to provide the public with information on green spaces in cities by leveraging other existing platforms. Other creative proposals included the provision of a community fridge to reduce hunger and food waste, composting food waste on campus to benefit the local community, touching the heart of the homeless with food, and creating a website for monitoring one's carbon footprint.

Students completed the program having further developed their leadership skills and competencies, enhanced their international experience, and gained more knowledge of the concept of global citizenship.





The Voice of Knowledge and Innovation: Challenges, Opportunities, and Actions

SENIOR INTERNATIONAL LEADERS' MEETING

The 15th Annual Senior International Leaders' Meeting (SILM) on September 20-22, 2017 convened on a tragic note, in the wake of a devastating earthquake hitting the Central Mexico region the previous day.

This meeting annually reviews the work of APRU to ensure it aligns with its strategic priorities and with the objectives of APRU members.

Dr. José Manuel Páez, Vice-Rector for International Affairs at host university, Tecnológico de Monterrey, updated delegates on the impact of the disaster. Co-Chairs of the International Policy Advisory Committee, Professors Cindy Fan and Jiro Kokuryo, joined APRU Secretary General in expressing their condolences to Tec de Monterrey colleagues and friends in Mexico.

Dr. Páez kicked-off the two-day conference conveying a message of global cooperation, envisioning a more just world through cutting-edge ideas. In light of the tragedy, this message reiterated the important role APRU plays in bringing together knowledge and research capabilities to address the challenges facing the Pacific Rim.

PREPARING STUDENTS IN A SHIFTING LANDSCAPE

The morning sessions aimed to share best practice on the role of universities in responding to the educational needs of future generations.

Sessions began with case studies from Latin American institutions and Tec de Monterrey shared insight from its TEC 21 initiative. With a drive to expose students to real-world problems and an emphasis on sustainability and interdisciplinary learning, TEC 21 helps students put the fundamentals of classroom learning into practice and gain skills to prepare for the social, economic, and technological forces set to change the future.

APRU UPDATE: EXPANDING INFLUENCE

APRU Secretary General, Christopher Tremewan, updated delegates on the new ways the organization is collaborating with industry and policy leaders. In a year in which APRU has expanded

and evolved its impact and policy work, speakers from two such projects shared an update on their activities.

PROJECT DARE (DATA ANALYTICS RAISING AWARENESS)

APEC collaborators Debbie Hughes, Co-Chair of APEC Project DARE, Tracy Huang, Project DARE Secretariat, and Lydia Cheng, U.S. Regional Lead of Digital Custom Solutions at Wiley presented on the status of Project DARE, which aims to close the skills gap on data science and analytics across the region.

Following the project's previous workshops with APRU in Singapore, the session focused on the development of Project DARE and its objective to develop a list of core data science competencies and an accompanying toolkit. This will support higher education institutions to match curricula and programs to meet the industry's evolving data science and analytics needs for a 21st century workforce.

PACIFIC OCEAN INITIATIVE

During an interactive session, Professor Kathy Belov, Pro-Vice-Chancellor of Global Engagement of The University of Sydney, asked delegates for feedback on initiatives and key areas of interest within oceans-related research. APRU is championing the sustainability of the Pacific Ocean as a major initiative going forward. The event was a chance to explore opportunities for collaboration and gain insight into the project's pathway to meet this aim.

CLOSING REMARKS

Closing the three-day event, Co-Chairs, Professors Cindy Fan and Jiro Kokuryo concluded the conference, describing the proceedings with the acronym "FIRE", highlighting the meeting's themes: Forward-looking, Impact, Resources, Engagement. The acronym was an apt description of APRU's expanding influence in the region and the important role it must play in preparing the workforce of the future.



Expanding Impact in a Divided World

INTERNATIONAL POLICY ADVISORY COMMITTEE (IPAC) MEETING

Picking up the recommendations of the Senior International Leaders' Meeting in Monterrey, Mexico, APRU's International Policy Advisory Committee met in Hong Kong, headquarters of the International Secretariat, from March 22-23, 2018.

IPAC's agenda included:

- Giving feedback and suggestions for opportunities to increase impact focused on APRU programs and hubs, partnerships, policy efforts, and new initiatives.
- Giving feedback on the communications and strategic direction of APRU.

- Preparing for the Annual Presidents' Meeting, hosted by National Taiwan University, June 24-26, 2018.

Professor Wei Shyy, Acting President of The Hong Kong University of Science and Technology welcomed participants and Professor Andy Cohen, Director of the HKUST Jockey Club Institute for Advanced Study, gave an introduction to the Institute and its global programs.

A keynote address by Professor Paul Schulte, Schulte Research Institute, addressed the *Economic implications of AI in East Asia and Comparative Developments in North America*.

APRU NETWORK LEADERS

INTERNATIONAL POLICY ADVISORY COMMITTEE (IPAC)

CO-CHAIRS

Cindy Fan

Vice-Provost for International Studies and Global Engagement
University of California, Los Angeles

Jiro Kokuryo

Vice-President for International Collaboration
Keio University

MEMBERS

Kriengkrai Boonlert-U-Thai

Deputy Vice-President for International Affairs
Chulalongkorn University

Victoria Panova

Vice-President for International Relations
Far Eastern Federal University

Ann Tang

Deputy Director, Foreign Affairs Office
Fudan University

Sunhyuk Kim

Vice-President for International Affairs
Korea University

Luisa Shu-Ying Chang

Vice-President for International Affairs
National Taiwan University

Andrew Wee

Vice-President (University and Global Relations)
National University of Singapore

José Manuel Páez Borrillo

Vice-Rector for International Affairs
Tecnológico de Monterrey

Sabrina Lin

Vice-President for Institutional Advancement
The Hong Kong University of Science and Technology

John Kao

Vice-President and Pro-Vice-Chancellor (Global)
The University of Hong Kong

Simon Evans

Pro-Vice-Chancellor (International)
The University of Melbourne

Kathy Belov

Pro-Vice-Chancellor (Global Engagement)
The University of Sydney

Toshiya Ueki

Executive Vice-President
Tohoku University

Zhang Jian

Assistant Dean (Global Partnership)
Tsinghua University

Joanna Regulska

Vice-Provost and Associate Chancellor, Global Affairs
University of California, Davis

Dennis Galvan

Vice-Provost for International Affairs
University of Oregon

Shantanu Dutta

Professor, USC Marshall School of Business and Special Liaison to APRU
University of Southern California

Min Li

Director, Office of International Relations
Zhejiang University

APRU NETWORK LEADERS

SENIOR INTERNATIONAL LEADERS

Australia

Shirley Leitch, Deputy Vice-Chancellor (Global Engagement),
The Australian National University

Katherine Belov, Pro-Vice-Chancellor (Global Engagement),
The University of Sydney

Simon Evans, Pro-Vice-Chancellor (International),
University of Melbourne

Laurie Pearcey, Pro-Vice-Chancellor (International), UNSW Sydney

Canada

Murali Chandrashekar, Vice-Provost, International,
The University of British Columbia

Chile

Eduardo Vera, Director, International Relations, University of Chile

China and Hong Kong SAR

Ann Tang, Deputy Director, Foreign Affairs Office, Fudan University

Sabrina Lin, Vice-President for Institutional Advancement,
Hong Kong University of Science and Technology

Pu Lijie, Associate Vice-President for International Affairs,
Nanjing University

Xia Hongwei, Director, Office of International Relations,
Peking University

Fok Tai Fai, Pro-Vice-Chancellor/Vice-President,
The Chinese University of Hong Kong

John Kao, Vice-President and Pro-Vice-Chancellor (Global),
The University of Hong Kong

Jack Jinliang Li, Dean, Office of International Cooperation and
Exchange, Tsinghua University

Wu Yueliang, Vice-President,
University of Chinese Academy of Sciences

Hou Zhonghuai, Director, Office of International Cooperation,
University of Science and Technology of China

Li Min, Director, Office of International Relations, Zhejiang University

Chinese Taipei

Luisa Chang, Vice-President for International Affairs,
National Taiwan University

Ta-Jen Yen, Vice-President for Global Affairs,
National Tsing Hua University

Indonesia

Indah Suci Widyahening, Head of International Office,
University of Indonesia

Japan

Jiro Kokuryo, Vice-President for International Collaboration,
Keio University

Yoshihito Watanabe, Trustee (International Affairs and Public
Relations)/ Vice-President, Nagoya University

Kawahara Genta, Executive Vice-President of Global Engagement
and Student Support, Osaka University

Masashi Haneda, Executive Vice-President,
The University of Tokyo

Toshiya Ueki, Executive Vice-President, Tohoku University

Norimasa Morita, Vice-President for International Affairs, Waseda
University

Korea

Jay-Hyung Lee, Associate Vice-President, KAIST

Sunhyuk Kim, Vice-President, International Affairs,
Korea University

Kwang-Jae Kim, Vice-President of Planning (International Office),
POSTECH

Geun Lee, Dean for International Affairs,
Seoul National University

Doo Won Lee, Vice-President for International Affairs,
Yonsei University

Malaysia

Kamila Ghazali, Associate Vice-Chancellor (International),
University of Malaya

Mexico

José Manuel Páez, Vice-Rector for International Affairs,
Tecnológico de Monterrey

New Zealand

Jenny Dixon, Deputy Vice-Chancellor (Strategic Engagement),
University of Auckland

Philippines

Cynthia Bautista, Vice-President for Academic Affairs,
University of the Philippines

Russia

Victoria Panova, Vice-President for International Relations,
Far Eastern Federal University

Singapore

Er Meng Hwa, Senior Advisor, President's Office,
Nanyang Technological University, Singapore

Andrew Wee, Vice-President (University and Global Relations),
National University of Singapore

Thailand

Kriengkrai Boonlert-U-Thai, Deputy Vice-President for
International Affairs, Chulalongkorn University

USA

Nancy O'Connor, Senior Assistant to the President,
California Institute of Technology

Brendan Walsh, Director, Office of International Affairs,
Stanford University

Tsu-Jae King Liu, Vice-Provost for Academic and Space Planning,
University of California, Berkeley

Joanna Regulska, Vice-Provost and Associate Chancellor, Global
Affairs, University of California, Davis

Victoria Jones, Chief Global Affairs Officer and Assistant Vice-
Chancellor for Global Engagement, University of California, Irvine

Cindy Fan, Vice-Provost for International Studies and Global
Engagement, University of California, Los Angeles

Peter Cowhey, Dean, School of Global Policy and Strategy,
University of California, San Diego

Kum-Kum Bhavnani, Interim Associate Vice-Chancellor,
International Initiatives and Collaboration,
University of California, Santa Barbara

Anderson Sutton, Assistant Vice-Chancellor for International and
Exchange Programs, University of Hawai'i at Mānoa

Dennis Galvan, Vice-Provost for International Affairs,
University of Oregon

Anthony R. Bailey, Vice President, Strategic and Global Initiatives,
University of Southern California

Jeffrey Riedinger, Vice-Provost for Global Affairs,
University of Washington

APRU PARTNERS

The Association of Pacific Rim Universities would like to extend its thanks to the generosity and support of our sponsors and partners.



**Asia-Pacific
Economic Cooperation**

APEC

APRU collaborates with the Asia-Pacific Economic Cooperation (APEC) on initiatives which aim to solve the diverse challenges of the Asia-Pacific. APRU is a guest member of the Human Resources Development Working Group, APEC Education Network, the Policy Partnership in Science and Technology and Innovation, and the APEC Ocean and Fisheries Working Group.



ASIAN DEVELOPMENT BANK

APRU has formed a partnership with ADB in the fields of aging, technology, and the impact on the labor market, implementing initiatives to deepen the understanding of their implications on productivity among countries in Asia.



AUSTRALIAN GOVERNMENT

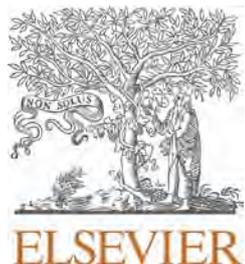
The Australian Government Department of Employment commissioned APRU to compile the Labor mobility Report. The report aims to influence a regional framework on labor mobility and deliver recommendations to remedy the impacts of the region's population aging.



crowell  **moring**

C&M INTERNATIONAL

Through APEC Project DARE, C&M International has supported APRU's work to further skills development in data science and analytics. Through this collaboration in APEC, C&M International provided support for the APRU-APEC University Leaders' Forum in November, 2017.



ELSEVIER

APRU works with Elsevier to identify the strengths of the network and of member institutions, to enhance the research collaboration between members, and to relate this strength to addressing Asia-Pacific challenges. As a world-leading provider of information solutions that enhance the performance of science, health, and technology professionals, Elsevier has sponsored the APEC University Leaders' Forum and is also the data partner and a sponsor of the APRU Impact Report.



GOOGLE

APRU collaborates with Google on two projects, Transformation of Work in Asia-Pacific in the 21st Century to analyze and address the affiliated economic risks and reservations of the Fourth Industrial Revolution and "AI for everyone: benefitting from and building trust in the technology" with the aim to inform and support policy makers of the region going forward.

INTERNATIONAL



FEDERATION

INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES

APRU has an MoU with the IFRC to pursue disaster relief and recovery (DRR) advocacy. Together, the organizations advocate in relevant forums such as the Asian Ministerial Conference on DRR, as well as support cross-sector research with the aim to put disaster science to work and into practice.



THE NEW YORK TIMES

APRU partnered with *The New York Times* on a case competition titled *The Future of the Pacific Ocean*. For this international competition, students were asked to write an 800-word policy brief on climate change and the future of the Pacific Ocean. The winner had their entries published to a global audience in the *The New York Times* International Edition.



UNITED NATIONS

APRU actively engages with United Nations' initiatives such as furthering the Sustainable Development Goals, particularly in regards to the sustainability of the Pacific Ocean. APRU also works closely with the Technical Advisory Group within the International Labour Organization for the upcoming Women and the Future of Work in the Asia-Pacific report. APRU is also consolidating its relationship with the UN Economic and Social Commission for Asia and the Pacific (ESCAP) based in Bangkok.



THE WILEY NETWORK

Through APEC Project DARE, The Wiley Network has supported APRU's work to further skills development in data science and analytics. The Wiley Network has also supported the APRU-APEC University Leaders' Forum in November, 2017.

PLATFORMS FOR ENGAGEMENT



Publications

Impact Report Series

APRU in the Media

Partnership and Member
Engagement

Network Meetings

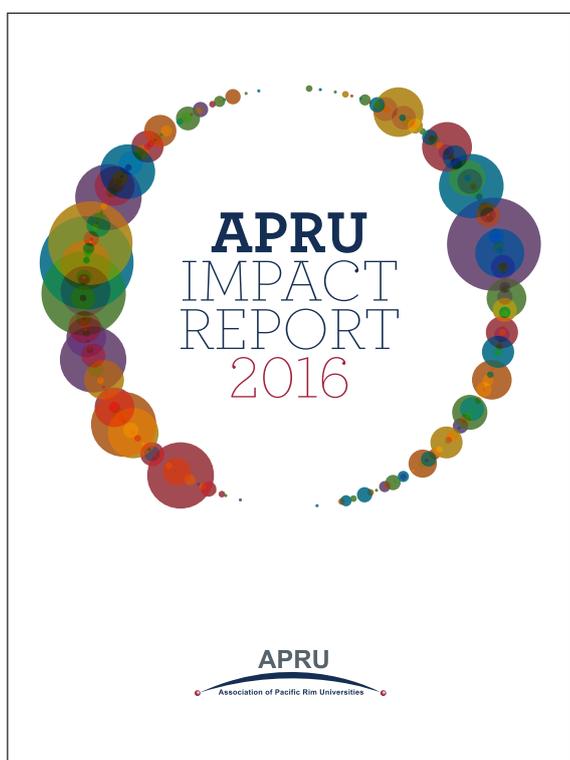
Dates for your Diary

PUBLICATIONS

- Elsevier. (2017) *A Global Outlook on Disaster Science*. Amsterdam, Netherlands: Elsevier.
- Association of Pacific Rim Universities and *The New York Times*. (2017) *The Future of the Pacific Ocean: Top Ten Case Submissions*. Hong Kong: Association of Pacific Rim Universities and *The New York Times*.
- APRU Multi-Hazards Program Hub. (2017) APRU-IRIDeS Multi-Hazards Summer School report Sendai: Tohoku University.
- APRU Multi-Hazards Program Hub. (2017) APRU-IRIDeS Science and Technology in Disaster Risk Reduction in Asia 1 Edition: Potentials and Challenges (Imprint: Academic Press).
- Association of Pacific Rim Universities. (2017) *APRU Business Offsite Report. A New Policy Agenda for the Digital Economy in the Asia-Pacific*. Palo Alto: APRU.
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<https://link.springer.com/article/10.1007%2Fs10900-017-0439-z>

IMPACT REPORT SERIES

The APRU Impact Report Series is a biennial publication summarizing the research contributions of APRU members to Asia-Pacific's most pressing challenges. Through contextual data, case studies, and research metrics, the Impact Report Series paints a summary of international collaboration in key fields of research and education as well as areas for future cooperation. The series also aims to highlight the important role of universities and the APRU network in engaging with the international policy community to transfer knowledge and innovation to address global challenges.



IMPACT REPORT 2016

The inaugural report was the first phase of a three-year pilot to deliver information and analysis most useful to policy-makers. For the very first time, it provided the evidence base for the contribution of APRU's member universities to societies and put a spotlight on the competencies of Asia-Pacific's leading institutions in regards to education, research, and innovation.



IMPACT REPORT 2018 (FORTHCOMING)

The second publication in the Impact Report series will focus on modes of collaboration between the social sciences and humanities and STEM disciplines to find solutions to Asia-Pacific challenges.

APRU IN THE MEDIA

This year, APRU secured coverage in a number of key media outlets, raising the profile of the organization and furthering the narrative on the important work we undertake in the region.

CIPD. EXPERTS WELCOME FRAMEWORK FOR DEVELOPING APEC SKILLS

Christina Schönleber, APRU Director for Policy and Programs, is quoted in an interview on the adoption of the APEC Framework on Human Resources Development in the Digital Age.

PLANETIZEN. NEW REPORT: RETHINKING STREETS IN AN ERA OF DRIVERLESS CARS

An article in Planetizen covers the release of the APRU and University of Oregon report, Rethinking Streets in an Era of Driverless Cars. It highlights the key research findings of how city planners, policy-makers, and community residents can begin thinking about street transformation in an AV era.

UNIVERSITY WORLD NEWS. PACIFIC RIM UNIVERSITIES WORK TO STEP UP POLICY IMPACT

APRU Secretary General, Christopher Tremewan, was interviewed for University World News in January, 2018. The article gives an overview of APRU's mission and work, focusing on how the organization collaborates with regional and international organizations to influence policy-making and provide much-needed research to tackle global and regional challenges.

ELSEVIER – APRU REPORT. GLOBAL OUTLOOK ON DISASTER SCIENCE

A number of leading publications around the world covered the release of the Elsevier report, Global Outlook on Disaster Science, and its findings:

- The Times Higher Education. How can Science Prepare us for the Worst?
- Asia Times. Disaster Prevention Collaboration Needed Across Asia, Report Says
- European Commission, EU Science Hub. A Global Outlook on Disaster Science
- Phys.org. Scientific Research on Disasters Represents Only 0.22 Percent of Global Scholarly Output

UNIVERSITY WORLD NEWS. HOW UNIVERSITIES CAN OVERCOME ECONOMIC NATIONALISM

Reporting from the APEC University Leaders Forum, journalist Yojana Sharma writes about the important role APRU universities have to play in driving multinational cross-border collaboration and preparing for a future thrown into uncertainty by the Fourth Industrial Revolution.

APRU. UNIVERSITIES OF THE ASIA-PACIFIC PREPARE TO LEAD IN THE FOURTH INDUSTRIAL REVOLUTION

The article announces the new partnership between APRU and APEC Project DARE (Data Science and Analytics Raising Employment) to bridge the looming skills gap in data science and analytics in the Asia-Pacific.

FORUM MAGAZINE. LIFE BELOW WATER

Secretary General, Christopher Tremewan, pens an article on the role of universities in seeking solutions to UNSDG 14 and the strength of universities to contribute to Pacific Ocean challenges.

NETWORK MEETINGS

MAY 2017- APRIL 2018

Military Veterans Symposium
University of Southern California
May 17-19, 2017

Vice-Presidents for Research Meeting
Nanjing University
May 19-22, 2017

APRU Digital Economy Business Offsite Meeting
Stanford University
May 25-26, 2017

Annual Presidents' Meeting 2017
UNSW Sydney
June 25-27, 2017

Undergraduate Leaders' Program 2017
Far Eastern Federal University
July 1-12, 2017

Workshop on Population Aging and the Chinese Economy
UNSW Sydney
July 11-12, 2017

APRU-IRIDeS Multi-Hazards Summer School 2017
Tohoku University
July 18-21, 2017

APRU-IRIDeS Multi-Hazards Symposium 2017
Peking University
August 28-29, 2017

Sustainable Cities and Landscapes Symposium 2017
University of Oregon
September 15-17, 2017

Senior International Leaders' Meeting 2017
Tecnológico de Monterrey
September 20-22, 2017

Aging in the Asia-Pacific Research Symposium 2017
National University of Singapore
October 11-13, 2017

Global Health Conference 2017
University of the Philippines
October 16-19, 2017

Asia-Pacific Women in Leadership (APWIL) Workshop 2017
The University of Sydney
November 1-3, 2017

Aging in the Asia-Pacific Symposium for Young Researchers
The University of Tokyo
November 9-11, 2017

Provosts' Forum 2018
The University of Hong Kong
March 12-14, 2018

DATES FOR YOUR DIARY

2018-2019²⁹



Annual Presidents' Meeting
2018
National Taiwan University
June 24-26, 2018



Undergraduate Leaders'
Program 2018
The University of Sydney
July 9-19, 2018



TOHOKU

APRU-IRIDeS Multi-Hazards
Summer School 2018
Tohoku University
July 24-27, 2018



Sustainable Cities and
Landscapes Symposium, 2018
The University of Hong Kong
September 6-9, 2018



Senior International Leaders'
Meeting 2018
The Hong Kong University of
Science and Technology
October 8-10, 2018



Vice-Presidents for Research
Meeting 2018
University of California, San
Diego
October 17-19, 2018



APRU-IRIDeS Multi-Hazards
Symposium 2018
Australian National University
October 21-24, 2018



Global Health Conference 2018
University of Malaya
October 28-30, 2018



Aging in the Asia-Pacific
Research Symposium 2018
The Hong Kong University of
Science and Technology
December 7-9, 2018



Annual Presidents' Meeting
2019
University of California, Los
Angeles
June 23-25, 2019

²⁹ Dates are subject to change. Please refer to apru.org for the most updated information.

APRU INTERNATIONAL SECRETARIAT

Headquartered in Hong Kong, APRU's International Secretariat coordinates the organization's events and activities and delivers administrative support for the group's programs. The Secretariat also plays an instrumental role in driving APRU's communications and global outreach.

To contact the Secretariat with suggestions, initiatives, or queries, please contact: apru@apru.org



BACK ROW (LEFT TO RIGHT):

- Tina Lin, Senior Program Officer
- Chris Tremewan, Secretary General
- Florence Chan, Office Manager/EA to Secretary General
- Sherman Cheng, Director (Administration and Finance)
- Cherry Wong, Administrative and Program Officer

FRONT ROW (LEFT TO RIGHT):

- Elaine Hung, Project Manager (Events & Relations)
- Christina Schönleber, Director (Policy & Programs)
- Jackie Agnello Wong, Marketing and Business Development Manager



Takako Izumi
Ph.D.
Program Director
APRU Multi-Hazards Program



Yekang Ko
Ph.D.
Program Director
APRU Sustainable Cities &
Landscapes Program



Hiroki Nakatani
M.D., MPHed, Ph.D.
Program Director
APRU Population Aging Program



Mellissa Withers
Ph.D.
Program Director
APRU Global Health Program



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