



Message for the ACECC 20th Anniversary



亞洲土木工程聯盟

ACECC 成立 20 週年誌賀感言



Chairman Yen-Yi TSENG

Chairman of ASE Culture and Education Foundation(2015--)
 Chairman of Hung Ching Co., Ltd., the ASE Group.(1999-2015)
 President of Ret-Ser Engineering Agency (1991-1998)
 President of The Chinese Institute of Civil and Hydraulic Engineers (1999-2000)
 Executive Director of Asian Civil Engineering Coordinating Council (ACECC)

曾元一

日月光文教基金會董事長 (2015--)
 宏環建設董事長 (1999-2015)
 榮工處處長 (1991-1998)
 中國土木水利工程學會理事長 (1999-2000)
 ACECC 執行委員會主席

During 1999 and 2000, I served as the 13th President of the Chinese Institute of Civil and Hydraulic Engineering (CICHE). Considering the importance of civil engineering development and cooperation in Asia, CICHE and 4 other organizations, ASCE, JSCE, KSCE, and PICE jointly signed to establish the Asian Civil Engineering Coordinating Council (ACECC). Twenty years on, the ACECC continues to thrive as Asia's economies take off. By 2019, 14 organizations had joined, with a total population of more than 710,000 engineers. The long term effort is truly a remarkable achievement and one to be congratulated on!

As we celebrate the 20th anniversary of ACECC, I would like to take this opportunity to thank all CICHE partners for working together. Mr. Chi-Shou HSIEH and I ran along to set up ACECC. Mr. Jenn-Chuan CHERN and Mr. John Chien-Chung LI have made long-term contributions to ACECC. Many predecessors, Mr. Chin-Der OU, Mr. Ching-Peng SHEN, as well as many other outstanding scholars and engineers in various fields, your contributions have reached exceptional achievements today. Thank you. I certainly want to share with you all the twenty years of honor.

Looking ahead, ACECC will play a more critical role in the cooperation and promotion of civil engineering in Asia and even the world. It is my sincere hope that more up-and-coming stars will continue previous efforts to help ACECC to flourish and CICHE to shine more brightly in the world.

1999年我擔任 CICHE 第 13 屆理事長，經過多次奔走，由 CICHE 與 ASCE, JSCE, KSCE 及 PICE 五個國家之土木工程組織，共同創設 Asian Civil Engineering Coordinating Council, ACECC。時光飛逝轉眼 20 載，此期間適逢亞洲經濟起飛，ACECC 不斷茁壯，於 2019 年統計已有 14 個組織加入，總人數超過 71 萬人。這真是個了不起的成就，可喜可賀！

在慶祝 ACECC 二十週年的同時，我要藉此機會感



Signing ceremony of ACECC establishment in 1999



Chi-Shou HSIEH



Jenn-Chuan CHERN



John LI



Za-Chieh MOH



Chin-Der OU



Ching-Peng SHEN

謝所有 CICHE 一起打拼的夥伴。謝季壽先生與我一起奔走創設 ACECC；陳振川先生、李建中先生等長期貢獻於 ACECC；還有多位前輩，歐晉德先生、沈景鵬先生、周南山先生等，以及各領域優秀的教授學者、卓越的工程師專家們，有你們的貢獻才有我們今天的成果。感謝您們，這二十年的榮譽要與您們共享。

展望未來，ACECC 對亞洲甚至全世界，於土木工程領域的合作及推動，將扮演更重要的角色。希望更多後起之秀，接續前人力，協助 ACECC 組織蓬勃發展，讓 CICHE 在國際舞台發光發熱！



Prof. Jenn-Chuan CHERN

Chair of ACECC Committee (1999-2003)
President, CICHE (2003-2005)
Chairman of the ACECC (2004-2007)
CEO of the Tang Prize Foundation (2012-)
Professor Emeritus of Civil Engineering, National Taiwan University

陳振川

中國土木工程學會 ACECC 委員會主任委員 (1999-2003)
中國土木工程學會理事長 (2003-2005)
亞洲土木工程聯盟主席 (2004-2007)
唐獎教育基金會執行長 (2012-)
國立臺灣大學土木工程系名譽教授

The Asian Civil Engineering Coordinating Council, ACECC, was established in 1999. Under the continuous past efforts, it has grown from 5 founding member organizations to 14 member organizations in the past 20 years. In the Asian region with the largest population, rapid economic development and the largest number of infrastructure projects, ACECC is an important coordination organization of the Civil Engineering Society of the Asian countries. Established in 1985 as ASCE, ECCE (22 member organizations) established in 1985, and WCCE established in 2005 by 24 member organizations from Europe, Africa and South America, ACECC represents Asia as a civil engineering coordinating organization in this world fastest growing region. ACECC, as an important part of the world civil engineering organization, provides the service to member organizations and also participates in the world engineering community technology exchanges. We are pleased with the establishment and development of the ACECC by expressing our gratitude to those who had contributed to this organization and blessing for a great future.

The ACECC organized the Asian Civil Engineering Summit in 2006. After more than eight months of development and in-depth discussions, on June 26, 2007, 41 presidents, past presidents and senior representatives of 41 civil engineering leaders from all over the world were at the Taipei 101, the tallest building then, jointly signed the "Taipei Declaration on Sustainable Development", which shows the future direction of the civil engineering and is also an important moment in the history of the world civil engineering society.

This year, the 20th anniversary of the establishment of the ACECC, we see that the responsibility of civil engineers seems to be heavier, regardless of people's food and clothing, recreational, disaster relief and reconstruction, energy and urban development, how to increase the resilience to disasters and adaption to the climate changes and efforts to save energy and reduce carbon are important tasks for engineers. We believe that sustainable development is endless hard work, and engineers must use this as a concept and implement it together in action. Moreover, civil engineers should also be committed to the promotion of circular economy, make good use of resources, reduce environmental pollution, share our experience and enhance the level of our member organizations in the Asian region.

It is also the ACECC should strive to promote development.

Dr. Samuel Yin of Runtex Group founded the International Award "Tang Prize Award" in 2012 and set up the "Sustainable Development" award category to recognize those who have made extraordinary contributions to the sustainable development of human societies, especially through groundbreaking innovations in science and technology. I also especially encourage ACECC and civil engineers to work together towards this goal, to bring innovation value and positive change to the world, and to become the driving force for continuous efforts in the new era. (www.tang-prize.org)

亞洲土木工程聯盟 ACECC 成立於 1999 年，在歷屆努力下，20 年來已經從成立時 5 個會員組織，迄今已經發展成 14 個會員組織。在人口最多、經濟發展快速、工程建設數量最多的亞洲地區，ACECC 是亞洲地區各國土木工程學會之重要協調組織。和 1985 年成立的 ASCE，1985 年成立的 ECCE (22 個會員組織)，暨由歐洲、非洲及南美洲為主體於 2005 年成立之 WCCE (24 個會員組織)，ACECC 代表亞洲成為此地區土木工程界服務之重要組織，也是世界土木工程組織重要一環，參與世界工程界交流。我們為 ACECC 的成立及順利發展感到喜悅，表示感謝及祝福。

ACECC 於 2006 年籌辦亞洲土木工程高峰會，歷經八個多月研擬及深入討論，在 2007 年 6 月 26 日由 41 位各國土木工程界會長、前會長及各界高層代表人 41 位於當時世界最高樓台北 101 共同簽署「台北永續發展宣言」，前瞻的彰顯土木工程界未來發展具體方向，也是世界土木工程界歷史上重要一刻。

今年，適逢 ACECC 成立滿二十週年，我們看到土木工程師的責任似乎更重，不論人們的食衣住行育樂、防救災及重建、能源及城鄉發展，如何增加抗災韌性及調適氣候變遷，並努力節能減碳，均是工程師重要職務。我們相信永續發展推動是永無止盡，工程師們也要以此為念，共同落實於行動。而且，土木工



Past ACECC chairs in CECAR 4



Signing Ceremony in Taipei 101



Signing Ceremony at the Asian Summit



Closing Ceremony in CECAR 4



ACECC Taipei Declaration on Sustainable Development, 2006

工程師也應該致力於循環經濟推動，善用資源，減少環境污染，而分享及提升會員國組織於亞洲地區之水準，也是 ACECC 應該致力發展推動。

潤泰集團尹衍樑博士於 2012 年創立國際大獎「唐獎」，並設置「永續發展」獎項以表彰對人類在地球上永續生存與發展具開創性及卓越貢獻者。我也特別鼓勵 ACECC 和土木工程師共同朝此目標努力，致力於為世界社會帶來創新價值與改變，成為嶄新時代不斷努力的動力。



Tang Prize Awarding Ceremony (James Hansen)



President Jaw-Lieh WANG

President of Chinese Institute of Civil and Hydraulic Engineering (2017-present)
 Chair of Concrete Engineering Committee, CICHE (2010-2018)
 Board Director & Senior Advisor of CECI Engineering Consultants Inc. Taiwan (2019-present)
 President of CECI Engineering Consultants Inc. Taiwan (2016-2019)
 President of Taiwan Institute of Steel Construction (2018-present)



The 14 Presidents of 14 ACECC Members (2019.4..16)

I would like to represent CICHE, one of five founding members, to congratulate the 20th anniversary of the ACECC establishment. Especially her great success on promoting the collaboration efforts in the infrastructure sustainable development within the Asian region.

As we all know on the date of April 16 this year all the members signed the 2019 ACECC Tokyo Declaration, among all the initiatives, I personally consider the most important function of ACECC shall be the experience and technology development sharing in various regions, organizations and disciplines.

In the last decades, Taiwan has been suffered varies catastrophes, for examples: 921 Earthquake (Sep. 21, 1999), Morakot Typhoon Disaster (Aug. 8, 2009), it not only devastated Taiwan economics and transportation systems, but also caused huge casualties.

As a professional Civil & Hydraulic engineer organization, CICHE is playing an important role to document all the damages, looking for the solutions to improve construction materials, to revise the design regulation & specification, to help the government passing the new polices. As a member of ACECC, we would like to have more opportunities to share and exchange our experience with all the members.

Although civil engineering is the oldest engineering category in the human history, however due to the changes in the global environment and the development of science



Signing ceremony of ACECC Tokyo Declaration in 2019

and technology, civil engineer is facing the great challenges. Big data, GIS, AI and ...etc. will all speed up the next generation revolution in our field of practice, at this moment we do not know what kind of achievement can be reached in the next 20 years, but one thing CICHE know is that CICHE is proud to be a member of the ACECC and is ready to work with and cooperate with ACECC for the next 20 years.

Happy 20th Anniversary !!!



Prof. Luh-Maan CHANG

Chair of ACECC Committee, CICHE (2008-present)
 Chair, IAC Committee, CICHE (2009-2013)
 Chair Professor for High-Tech Fab Engineering,
 College of Engineering, National Taiwan University (2019-2021)

Thank all of ACECC friends. CICHE has been actively participating in every ECM meeting and constructively contributing to every CECAR conference since 1999. With your steadfast support, CICHE is looking forward to working closely with you for better quality of life in the coming years.

At the 20th Anniversary of ACECC, I would like to take this opportunity to make a few of my observations into the Message Book. In my view, the most significant endeavor made by ACECC in the last 20 years is on the subject area of **Sustainable Development**.

The endeavor has continuously been underscoring since ACECC was established on September 27, 1999. At the day one, ACECC clearly set her holy goal “to promote collaborative work towards **Sustainable Development** of infrastructure within the Asian regions.” This terminology or its synonym has also been highlighted in her triannual CECARs as shown in the following table.

Sustainable Development can be sourced back to 1987 when the World Commission on Environment and Development (WCED) of United Nations published the Brundtland Report “Our Common Future.” In the report, Sustainable Development is defined as the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” <https://en.wikipedia.org/>



Presidential Meeting in CECAR 4



Discussion for Taipei 101 Declaration

CECAR	DATE / PLACE	FOCUS POINT
1	Feb. 19-20, 1998 Manila, Philippines	Conference Theme: Asian Infrastructure, Sustainable Development and Project Management
2	Apr. 16-20, 2001 Tokyo, Japan	Resolution of Presidential Meeting: The 1st objective among four ACECC objective was “to promote and advance the science and practice of civil engineering and related professions for sustainable development in the Asian region.”
3	Aug. 16-19, 2004 Seoul, Korea	Conference Theme: Moving Asia to the Future The sole Keynote Speech on “Environmental Issues and Sustainable Development in Northeast Asia” by Dr. Myungia Kim
4	Jun. 25-28, 2007 Taipei, Taiwan	Conference Theme: Working for Asian Sustainability Resolution of Presidential Meeting was “Taipei Declaration on Sustainable Development ”
5	Aug. 8-12, 2010 Sydney, Australia	Conference Theme: Innovative Community Building Resolution of Presidential Meeting was Presidents’ Communiqué “to recommit to the aims and objectives of the ACECC and draw attention to the world wide benefit of promoting sustainable communities .”
6	Aug. 20-22, 2013 Jakarta, Indonesia	Conference Theme: “Embracing the Future Through Sustainability ”. Resolution of Presidential Meeting was “ Jakarta Protocol: Civil Engineering for a Sustainable Future ”.
7	Aug. 31- Sep. 2, 2016 Hawaii, U.S.A.	Conference Theme: “Building a Sustainable Infrastructure in the Asian Pacific Region
8	April 16-18, 2019 Tokyo, Japan	Conference Theme: Resilient Infrastructure in Seamless Asia Resolution of Presidential Meeting was ACECC Tokyo Declaration 2019 “ACECC will continue to conduct activities to promote the sustainable development of infrastructure facilities in order to the improvement of the quality of people’s lives.”

wiki/Our_Common_Future.

This also laid the groundwork for the convening of the 1992 Earth Summit (Rio de Janeiro Earth Summit.) Since then, Earth Summit functions as a platform for many UN Member States to collaborate. https://en.wikipedia.org/wiki/Earth_Summit. In 2012, the United Nations held another Conference on Sustainable Development at Rio again, called “Rio Earth Summit 2012” or the renowned “Rio+20.” https://en.wikipedia.org/wiki/United_Nations_Conference_on_Sustainable_Development.

Obviously, the call for Sustainable Development is because the ongoing global economic development is overdone. The over-development cannot be ignored anymore and needs collaborative effort for sustainable development on earth. There are many economic, social and political factors causing the over-development. In my observations and personal opinions, one of the most critical factors is the exponent growth of world population. If one looks at the following population projection table, it is easy to comprehend that there would be about 8.1 billion people living on earth in 2025 and about 9.7 billion in 2050. The 2025 generation will have about 0.4 billion more people and the 2050 generation will have about 1.6 billion more people than 2019 generation’s. Both generations of 2025 and 2050 must need more resource to develop more infrastructures and to supply more foods, goods and service for accommodating their needs. https://en.wikipedia.org/wiki/World_population

If their needed resource cannot be supplied abundantly due to the limited resource and/or unbalanced supply, they must compete for the limited and unbalanced resource. If the competition gets intensive, the law of the jungle would likely rule. the fittest would survive. The weak most likely become the prey of the strong; the poor for the rich; the disadvantaged for the advantaged; the underdeveloped for the developed and so forth. If this is fighting for few foods, they may either kill each other or starve to death. Therefore, to prevent the tragedy of unconstructive competition and/or self-killing among human beings, human being as a whole has to search for civilized solutions to resolve the potential catastrophe resulted from the present explosive growth of human population.

Besides the to-be-overcrowded world population, it is well known that the present means for economic development consumes a lot of coals and oils for generating energy. However, the burning of the coals and oils not only produces carbon dioxide, but also methane and other toxic pollutants. Carbon dioxide and methane induce greenhouse-effect that causes global warming, climate change, and eventually tricks numerous natural disasters on earth as well as depletes the

natural resources needed for the future generations. Moreover, the toxic pollutants have been found that they are accountable for many healthy problems and fatal diseases. Moreover, the pollutants are terminating some of rare species and gradually changing genes of many other species. Consequently, they endanger the eco-environmental balance and human beings’ harmonious co-exist with other species.

There are many convinced reports, using renewable energy is one of the best solutions for preventing the pitfalls resulted from the use of the coal and fossil fuel which will be eventually depleted and leave nothing but polluted earth for the future generations. Renewable Energy is energy from a source that can be maintained in a constant supply over time. Their sources are from sun, wind, water, bio-energy and earth. They are much safer and cleaner. Their applications are such as Photovoltaic Electricity (Sun), Solar Hot Water (Sun), Wind Generator (Wind), Hydropower (water), Hydrogen Fuel Cell (Water), geothermal (within Earth), Bio mass-grain and waste (bio-energy) and so forth.

In addition, according to HASTAC (Humanities, Arts, Science, and Technology Alliance and Collaboratory, <https://www.hastac.org/>), “education benefits economic growth and stability on both personal and national levels. It enhances personal lives and gives assistance to societies to run smoothly. It also means helping people to learn how to do things and support them to think about what they learn. It’s also important for educators to teach ways to find and use information.” Meanwhile, as Wikipedia’s statements, “Education is about teaching, learning skills and knowledge. It also means helping people to learn how to do things and support them to think about what they learn. It’s also important for educators to teach ways to find and use information. Through education, the knowledge of society, country, and of the world is passed on from generation to generation.” (<https://simple.m.wikipedia.org/wiki/Education>.)

The over-growing human population and continual production of carbon dioxide, methane and toxic pollutants, have caused many human and natural disasters. We had better get the help from education. Not only we need to educate ourselves and the coming generation of civil engineers on the imminent threats to our comfort existence and peaceful co-existence with other species on earth, but also, to continuously and collaboratively promote Sustainable Development while we are building infrastructures in Asian regions and around the world. If we could collaboratively fix them now, we would not regret later. Thus, we could leave a safe, secure and clean earth with abundant resource for the next generations. These are my messages and my best wishes!

Year	World Population (Billion)	Increased population (Billion)	Population Growth Rate (%)	Asia Population (Billion)	Increased population (Billion)	Population Growth Rate (%)
2050	9.7	1.6	197.5	5.3	0.5	104.2
2025	8.1	0.4	51.9	4.8	0.2	43.5
2019	7.7	0.4	54.8	4.6	0.2	45.5
2015	7.3	0.4	58.0	4.4	0.2	37.2
2010	6.9	0.4	61.5	4.2	0.3	87.7
2005	6.5	0.5	83.3	3.9	0.2	54.1
1999	6.0			3.7		



CECAR 4 Exhibition Opening Ceremony



Reception Ceremony before CECAR 5



After CECAR 6 Tour



The 1st ABM Workshop in CECAR 6



After L.J. Leu's Keynote Speech in CECAR 7



CICHE Delegate Team in CECAR 8



CICHE Youth Delegates in the 29th ECM



Get Together Photo in the 34th ECM

Record of the Past Awardees of ACECC Awards

歷屆 CECAR 得獎名單

VENUE	DATE	COUNTRY	CITY	AWARDS	NOMINATED BY	AWARDEES
CECAR1	1998/2/19-20	Phillipines	Manila	-	-	-
CECAR2	2001/4/16-20	Japan	Tokyo	-	-	-
CECAR3	2004/8/16-19	Korea	Seoul	-	-	-
CECAR4	2007/6/25-28	Taiwan	Taipei	ACECC Award for Technology	JSCE	Recovery Project from the Niigata-Chuetsu Earthquake
					KSCE	Cheong Gye Cheoun Restoration Project,
					CICHE	Hsuehshan Tunnel (Taipei-Ilan Expressway Project)
					EA	Bayu-Undan Development- Phase 1
				VFCEA	Technology of Movable Caisson Dam	
				ACECC Award for Achievement	JSCE	Prof. Fumio Nishino
					CICHE	Dr. Ching Lung Liao
ASCE	Dr. Robert A. Crist					
CECAR5	2010/8/8-12	Australia	Sydney	ACECC Civil Engineering Project Award	JSCE	Bali Beach Conservation Project
					CICHE	Taiwan High Speed Rail Project (Outstanding Award)
					KSCE	Incheon Bridge
				ACECC Civil Engineering Achievement Award	ICE(I)	Delhi Metro Rail Corporation Limited
					JSCE	Prof. Hideo Nakamura
					CICHE	Prof. Jenn-Chuan Chern
CECAR6	2013/8/20-22	Indonesia	Jakarta	ACECC Civil Engineering Project Award	JSCE	The Shin-Tomei Expressway
					KSCE	Four Rivers Restoration Project
					CICHE	Taipei MRT Nangang eastern Extension
				ACECC Civil Engineering Achievement Award	PICE	PICE PGEP Philgreen School Buildings
					JSCE	Dr. Hiroshi Okada
					KSCE	Dr. Chun-Su Chon
CECAR7	2016/8/30-9/2	USA	Honolulu	ACECC Civil Engineering Project Award	HAKI	Dr. Wiratman Wangsadinata
					KSCE	Yi Sun-sin Bridge
					JSCE	Yamate Tunnel on the Central Circular Route
					CICHE	National Freeway No. 1 Widening Project, Wugu to Yangmei
				ACECC Civil Engineering Achievement Award	HAKI	North Kalibaru Container Terminal Phase I Port of Tanjung Priok
					VFCEA	Lai Chau Hydropower Project
					JSCE	Dr. Yukihiko Sumiyoshi
CECAR8	2019/4/16-18	Japan	Tokyo	ACECC Civil Engineering Project Award	KSCE	Dr. Tai Sik Lee
					CICHE	Dr. Za-Chieh Moh
					KSCE	Eurasia Tunnel Project
					CICHE	Taiwan Taoyuan International Airport Access MRT System Project
					IEB	Emergency 2007 Cyclone Recovery and Restoration Project
				ACECC Civil Engineering Achievement Award	IEP	Housing Reconstruction Awaran (HRA)
					JSCE	Shinjuku Terminal South Gate Area Infrastructure Project
					MACE	Underground Critical Facilities Construction at Oyutolgoi of Mongolia
					JSCE	Dr. Yumio Ishii
IEP	Dr. Sahibzada Farooq Ahmad Refeeqi					
EA	Mr. Paul Louis Mitchell					
CICHE	Dr. John Chien-Chung Li					