

Progress Report 30 October 2018

Digital@B&R Double Hundred Universities Cooperation Project (DHUCP) <http://aetdew.sugonedu.com/>

1.0 Project Background

1.1 The Belt and Road Initiative (B&R)

The Belt and Road Initiative (B&R) or the Silk Road Economic Belt and the 21st-century Maritime Silk Road is a development strategy proposed by the Chinese government which focuses on connectivity and cooperation between countries of the ancient land Silk Road and the maritime Silk Road.

The initiative was unveiled by Xi Jinping in late 2013, to construct a unified large market through infrastructure connectivity and to enhance mutual understanding and trust of member nations through cultural exchange and integration, towards building a community of common destiny for humankind.

At the inaugural B&R Summit in Beijing May 2017, President Xi enunciated the Five Principles for B&R:

- First, we should build the Belt and Road into a road for peace.
- Second, we should build the Belt and Road into a road of prosperity.
- Third, we should build the Belt and Road into a road of opening up.
- Fourth, we should build the Belt and Road into a road of innovation.
- Fifth, we should build the Belt and Road into a road connecting different civilizations.

By the end of August 2018, 103 countries and international organizations had signed 118 cooperation agreements with China on the B&R.

1.1 Data@China Hundred Universities Project (DCHUP)

In 2016, under the specific guidance of the “School Planning, Construction and Development Center” of the Ministry of Education of China, the Sugon Ruiyi Education Cooperation Center initiated and implemented the “Data@China Hundred Universities Project”, (DCHUP) which aims at selecting 100 colleges or universities throughout China and establishing therein the Sugon Big Data and Artificial Intelligence (AI) Application Innovation Centres, that integrate talent cultivation, scientific research support, industrial applications, and social services through establishing “Sugon Big Data and AI Academy” and building “Big Data and AI Application Collaborative Innovation Network”. DCHUP focuses on the combination of key Big Data and AI technologies and key national industry applications. It aims to:

- Propel the reform of the talent training model in colleges and universities.
- Promote colleges and universities to enter the technological innovation system.
- Enhance the capabilities of colleges and universities in assisting local industries in strategy implementation in big data and internet plus.
- Encourage colleges and universities to seize every opportunity which might give a hand to the development of emerging industries.
- Encourage mass entrepreneurship and innovation in colleges and universities.

By connecting 100 “Sugon Ruiyi Big Data Colleges” and 100 “Big Data Application Innovation Centres” through the internet, DCHUP will realize

- Sharing and exchange of hardware resources and industry application innovations,
- Bring the superiorities of computer resources, data resources and industry application into full play,
- Enhance technical innovation and application abilities,
- Build ultimately a “super platform for big data application”, to popularize big data thinking and technology in various industries, and promote the ecological development of big data industry in China.

To date, the number of colleges or universities which have been selected throughout China is over 70, and more than 30 Big Data and AI Academies have been established where teaching and research innovation work have already begun. In order to achieve the goal of 100 universities in China and the achievement of DCHUP objectives within 3 years, two Project offices have been established in Shenzhen and Beijing with expert staff of about 50 in each office.

2.0 Digital@B&R Double Hundred Universities Cooperation Project (DHUCP)

The Chinese government, industry and universities are now ready to extend the benefits of DCHUP to universities and colleges in South countries under the Belt and Road Initiative.

DCHUP found a good partner in the Academy of Engineering and Technology of the Developing World (AETDEW).

2.1 The Academy of Engineering and Technology of the Developing World (AETDEW)

At the turn of this Century, the United Nations adopted the Millennium Development Goals (MDGs) 2001-2015, to lift the world out of poverty. Building on the success of the MDGs, the United Nations adopted in September 2015 a further 15-year global action plan (2016-2030) focused on the 17 UN Sustainable Development Goals (SDGs) to achieve the sustainable development of developing countries. The achievements of the UN MDGs were in no small measure due to the development model of Asia Pacific of building inclusive infrastructure and nurturing indigenous small and medium enterprises (SMEs) in manufacturing and services sectors. The leaders were the four Asian Tiger economies, followed by other ASEAN nations and China.

In 2005, the Group of G77 and China held the 2nd Summit in Doha and urged UNESCO to enhance engineering and technological human and institutional capacity in developing countries. As a result, the UNESCO International Science, Technology and Innovation Centre

for South-South Cooperation (ISTIC) was launched in May 2008 in Kuala Lumpur. ISTIC was hosted by Malaysia as her contribution to assist sustainable development of sister developing countries through science, technology and innovation.

As the achievement of the inclusive SDGs would require greater collaborative efforts by South countries through South-South Cooperation, ISTIC in 2015 proposed the formation of the Academy of Engineering and Technology of the Developing World (AETDEW) to mobilise the engineering, technological and scientific communities in government, industry, academia and civil societal organisations of G77 nations to help them achieve the UN SDGs based on the SDG premise “Leave No One Behind”. AETDEW was registered in Malaysia and launched in Kuala Lumpur in May 2017.

Currently AETDEW membership includes 4 Honorary Fellows, 178 Fellows from G77 countries and 8 Foreign Fellows from OECD countries.

AETDEW primary focus is to enhance the indigenous engineering and technological human and institutional capacities of G77 nations through the Belt and Road Initiative that has been embraced by nearly the whole of the developing world.

2.2 MOU for Launching DHUCP

AETDEW with her extensive network of eminent engineers, scientists and technologists in South countries is the ideal partner for the Sugon Ruiyi Education Cooperation Center in turning the Chinese DCHUP into DHUCP under B&R. After intensive consultations during exchange of visits to Kuala Lumpur, Beijing and Shenzhen in early 2018, both parties are desirous of:

- Promoting the educational exchange and cooperation of higher education institutions between China and their counterparts in B&R countries,
- Utilizing the leading information technology of China to upgrade the science and technology education institutions in B&R countries,
- Cultivating engineering and innovative talents with advanced information and communication technologies, and
- Improving the infrastructure and maintenance of national information and communication network of B&R countries.

AETDEW and Data @China Hundred Universities Project (DCHUP) of the Ministry of Education of China, jointly initiated the Digital @ B&R Double Hundred Universities Cooperation Program (DHUCP) by signing a MOU in July 2018.

2.3 Mission of DHUCP

The Mission of DHUCP is as follows:

2.3.1 Education and Cultural Exchange

Explore mechanism for communication and exchange between 100 member universities of DCHUP in China and 100 universities and professional training institutions in other B&R countries, within the framework of the Belt & Road Initiative. The qualified Chinese universities can establish partnerships with qualified universities and professional training institutions in other B&R countries, and combine the advantages of both parties to nurture

ICT students and to conduct regular academic, educational and cultural exchanges, including but not limited to educational cooperation among universities and colleges, mutual recognition of academic credits and degrees, study abroad fellowships, advanced studies and study tours.

2.3.2 Deepen International Exchange and Cooperation in Engineering Education

- Explore the exchange and cooperation in international engineering education with universities in B&R countries.
- Spread knowledge and intellectual products and educational resources of quality universities and multinational enterprises in China to universities and colleges in developing countries,
- Promote the integration of Chinese universities and multinational enterprises in joint efforts to cultivate Chinese “international” engineers who are familiar with foreign cultures, laws and standards,
- Cultivate engineers from B&R countries who are familiar with Chinese culture and Chinese engineers.
- Focus on the engineering infrastructure needs of B&R by building a strategic alliance of the information technology disciplines of the DHUCP universities and colleges, and
- Build an international cooperation network for engineering education with AETDEW to enhance the ability of engineering education to support the B&R strategy of all B&R countries, including China.

2.3.3 Regional Training Hubs of AETDEW

- Select qualified universities in DCHUP in China to establish AETDEW training hubs to provide human resources development and training services that are in demand in B&R countries, with focus on the combination of key big data and AI technologies and key national industry applications;
- Establish a global digital technology training network with training hubs in other B&R countries, especially communications, cloud computing, big data, together with other core professional fields in the modern information industry.
- Address the critical shortage of trained engineers and technicians in the operation and maintenance of the infrastructure assets that are being built under B&R by AETDEW training hubs in China and B&R countries to provide training in specific areas.

2.3.4 Support for UN Sustainable Development Goals (SDGs)

Rally support from the governments to promote the economic, cultural, and educational exchange activities of the B&R Initiative; and assist AETDEW in using science and technology to improve the living quality and economic development in developing countries, and through South-South Cooperation in helping developing countries achieve the UN SDGs by promoting progress in engineering and scientific and technological innovation in developing countries.

2.3.5 A Super Digital Platform for the Developing World

Building on the DCHUP “Super Platform for Big Data Application” in China, to develop DHUCP “Super Digital Platform for Sustainable Development” for the developing world.

3.0 Project Progress to Date

3.1 Recruitment of Universities and Colleges

The Project office in China is in close contact with technical universities and colleges in China that are very keen to join the Project.

The Project Office in China will invite universities and colleges from Russia and Mongolia to join the Project.

Since the signing of the MOU in July 2018, AETDEW has been very active to recruit universities and colleges from B&R countries to join the Project. Universities and colleges that have applied to join total more than twenty. They are from Kazakhstan, Indonesia, Jordan, Zimbabwe, Malaysia, South Africa, Pakistan, Vietnam, Ecuador, Nigeria, Iran, Kyrgyzstan, Tajikistan, Sudan, Rwanda, Thailand, Cambodia, Kenya.

Applications are expected from universities and colleges from Philippines, Colombia, Chile, Brazil, Argentina, Trinidad and Tobago, Tunisia, Senegal, Ghana, Uganda, Tanzania, Zambia, Costa Rica, Turkey, UK, Oman, Sierra Leone, Slovenia and Bangladesh.

3.2 International Advisory Board (IAB)

At the first working meeting between Sugon Ruiyi Education and AETDEW on 16 September 2018 in Beijing, AETDEW President Dato Lee Yee Cheong proposed the setting up of the DHUCP International Advisory Board (IAB) to provide policy advice and monitor the progress of the Project.

Nominations of AETDEW Fellows have been made and invitations will be sent out by AETDEW President to the following to be members of the IAB.

- 1) AETDEW President: Lee Yee Cheong;
- 2) United Nations Secretary-General’s Special Envoy for South-South Cooperation/Chief Executive, United Nations Office for South-South Cooperation, Jorge Chediek ;
- 3) President of the Future University of Sudan, Mustafa El Tayeb;
- 4) Chairman of the ECO Science Foundation, Manzoor H Soomro;
- 5) President of ASEAN Academy of Engineering and Technology/President of UTAR Malaysia, Chuah Hean Teik;
- 6) Director, UNESCO Regional Science Bureau for Asia and the Pacific, Shahbaz Khan;
- 7) President, Institution of Engineers Sri Lanka, Niranjani Ratnayake;
- 8) Former Director of the Science and Technology Division of the New Partnership for Africa's Development (NEPAD); John Mugabe;
- 9) Chairman of the Council for the Regulation of Engineering in Nigeria, Kashim Ali;
- 10) Former President of the American University Chile, Jorge Yutronic

- Fernandez;
- 11) Immediate Past President (Brazil) World Federation of Engineering Organisations (WFEO), Jorge Spitalnik;
 - 12) President WFEO (Australia), Marlene Kanga;
 - 13) President-Elect WFEO (China), Gongke;
 - 14) Treasurer WFEO (Singapore), Tan Seng Chuan;
 - 15) Vice President WFEO (Zimbabwe), Martin Mahuwa;
 - 16) Treasure AETDEW (Malaysia), Choo Kok Beng;
 - 17) Secretary General Federation of Engineering Institutions in Asia and the Pacific (FEIAP) (Malaysia), Tan Yean Chin
 - 18) Former Vice President WFEO (China) Zhong Xiyin;
 - 19) President, Federation of Global Competitiveness Councils (USA), Deborah Wince-Smith;
 - 20) Director General Islamic World Academy of Sciences, Moneef Al-Zou'bi
 - 21) Deputy Director, SEAMEO QITEP (Indonesia) Indarjani,
 - 22) Co-Founder, VICGO, Vietnam, Cong-Thang Huynh.
 - 23) Director International, Royal Scientific Society, Abeer Arafat
 - 24) Professor Tsinghua University, China, Xue Lan.
 - 25) Former Permanent Secretary Ministry of Higher Education Science and Technology Kenya Crispus Kiamba

The Project Office in China will nominate and send out invitations to Chinese IAB members.

3.3 Project Partners

AETDEW President Dato Lee Yee Cheong has been promoting the Project in WFEO Forums and Meetings in March 2018 Paris and in London in October 2018 as well as in regional conferences in Islamabad Pakistan, April 2018 and Kigali, Rwanda, August 2018, Beijing, China in September 2018. and in Global Engineering Congress London 22-26 October 2018. The response has been very positive.

It is expected that the Project will receive the support of WFEO and her international members like FEIAP and the Federation of African Engineering Organisations (FAEO).

The Project already received the support of UNESCO Regional Science Bureau for Asia and the Pacific and the ECO Science Foundation.

Dato Lee Yee Cheong visited the Chief Executive of the United Nations Office for South-South Cooperation (UNOSSC) in New York on 21 September 2018. Consultation on the signing of MOU supporting the Project is in progress.

In China, similar consultations are ongoing with the China Association for International Education Exchange and Chinese Corporations in the digital technology sector.