

2023
EDITION



Belt & Road Research Center Annual Report



*Regional collaboration
in sustainability
for the Future*



CONTENTS

Introduction of the Center	1
BRRC Director's Message	2
Research Teams	3
Center Development	4
Networking & Partnership	10
Center Work Summary	18



Introduction of the Center

AIT Belt and Road Research Center (BTRC) was established in late 2019, and its vision is to serve as an International hub for collaborative and innovative research towards robust economic growth and sustainable development in the Belt and Road region.

AIT BTRC's mission covers enhancing AIT's Belt & Road projects, promoting collaboration with China's and other Belt & Road Countries' Universities and Organizations, supporting young scholars/students' research and study in the region with Belt & Road fellowships/scholarships, and disseminating the related collaborative outcomes with wider community through Regional/International Belt & Road Conferences.

As an International Education/Research Institute with diversified students and researchers from all over the world, AIT is in well connection in the Belt & Road Countries and has constructed excellent networks that provide great advantages to support BTRC to fulfill its goals in the future.

AIT Belt and Road Research Center

A warm welcome from the **AIT Belt & Road Research Center (BTRC)**! Our Center aims to serve as an International hub for collaborative and innovative research towards robust economic growth and sustainable development in the Belt and Road Region. Together with our BTRC team, we look forward to bringing impactful research and engagements with our partners and stakeholders in the Region.

Director's message



Dr. Wenchao Xue

A handwritten signature in black ink, located below the nameplate of Dr. Wenchao Xue.

Associate Professor

Department of Energy,
Environment,
and Climate Change,
School of Environment, Resources,
and Development

Director

Belt and Road Research Center,
Asian Institute of Technology

BRRC Research Teams

Infrastructure research team

Lead by **Dr. Kuo-Chieh Chao**



Green Technology research team

Lead by **Dr. Wenchao Xue**



Digital Belt and Road Research Team

Lead by **Dr. Salvatore G.P. Viridis**



CENTER DEVELOPMENT

Belt and Road Office Renovation

New BRRC Office at Room 110, AIT Extension Building

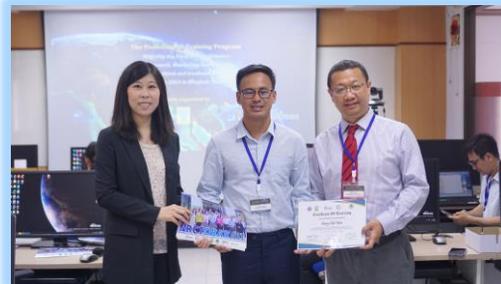


On-going Projects

“Strategic Research Plan for DBAR ICoE-Bangkok, 2023-2024”

Time: November, 2022 ~ December, 2024

The overall objective of this project is to consolidate the outputs and impact of DBAR ICoE-Bangkok and to explore the future direction for research and development towards sustainable development in Thailand. Main activities include: (1) strengthen national capacity on utilizing Big Earth Data Platform to enhance SDG research, monitoring and reporting; (2) demonstrate the potential value and extension on technology innovation based on the critical development issues evaluated and identified by DBAR with a case study on SDG 6; (3) deliver a series of national research-policy roundtables to identify the highest priority areas of research for selected SDGs that will have an immediate impact on national policy.



Project Achievements

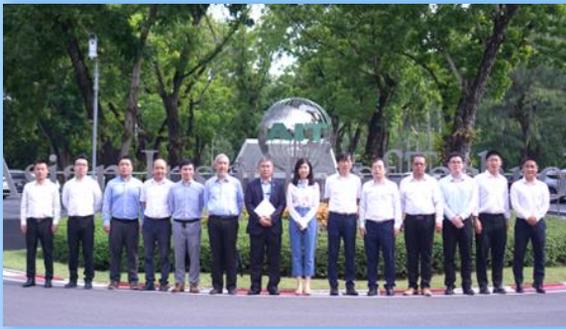
- 1 Professional Training Program
- 4 Co-Organized/Participated International Conferences/Workshops
- 2 Project Reports
- 2 Peer-reviewed Journal Publications

On-going Projects

“China-Thailand High Speed Railway Collaboration Project between AIT and CSCECTH”

Time: August 2022 ~ June 2025

This collaborative project aims at enhance the partnership between AIT and CSCECTH through multiple collaboration activities to support the Thailand-China High Speed Railway project and the Belt and Road Initiatives. Collaboration activities include to conduct sponsored research projects with mutual interests focusing on the Thailand-China high speed railway project; to conduct sponsored training program, etc.



Project Achievements

3 Masters' Thesis

1 PhD Research Dissertation

3 Conference Papers



On-going Projects

“Strengthening collaboration network between Thailand and China in the field of environment and sustainable development”

Time: August 2022 ~ June, 2024

This project aims to reconnect and strengthen the robust research networks and collaboration between Thailand and China in the field of environment and sustainable development after the COVID-19 pandemic and seek for opportunities in joint research between the two countries in the near future. To fulfill the goal of this project, four seminars were jointly organized by collaborators and partners from Thailand and China focusing on "SDG 6 Water and Sanitation", "Sustainable Watershed Management", "Big Earth Data for SDGs", and "SDG 13 Climate Action".

Organized by AIT BRRC

Strengthening collaboration network between Thailand and China in the field of environment and sustainable development

THE 4th SEMINAR

Strengthening Thailand-China's Collaboration on Climate Action

30 Sep 2022 13:30-15:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours) 14:30 - 16:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours)

PROGRAM

13:30 - 13:35	Welcome Remarks	Prof. Shobhakar Dhakal Moderator: Dr. Wenchao Xue
13:35 - 13:40	Opening Remarks	Dr. Wiparat De-ong
13:40 - 13:45	Opening Remarks	Prof. Gensoo Jia
13:45 - 14:05	Monitoring Natural Disasters with Big Earth Data over Southern Asia	Prof. Li Wang
14:05 - 14:25	Climate Change and Water Resource Management	Prof. Sangam Shrestha
14:25 - 14:45	Decadal Background for Active Extreme Drought Episode in the Decade of 2017 - 2019 over Southeastern Mainland Asia	Dr. Lin Wang
14:45 - 15:05	Opportunities for Climate Change Finance: An Overview	Mr. Robert Dobias
15:05 - 15:45	Panel Discussion	Moderator: Dr. Monthip Sritratana Panelists: Prof. Gensoo Jia, Prof. Li Wang, Prof. Sangam Shrestha, Dr. Lin Wang
15:45 - 15:50	Summary and Closing Remarks	Dr. Monthip Sritratana

CONTACT

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Associate Professor, School of Environment, Resources and Development, AIT
Director, AIT Belt & Road Research Center
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Dr. Monthip Sritratana
Director, Digital Belt and Road International Center of Excellence - Bangkok
Senior Advisor, National Research Council of Thailand
E: monthip2007@gmail.com | +66-81-874-0447

Register Here [QR Code]

Organized by BAR

Strengthening collaboration network between Thailand and China in the field of environment and sustainable development

THAILAND-CHINA'S Big Data for the Sustainable Development Goals

13:30-15:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours) 14:30 - 16:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours)

PROGRAM

13:30 - 13:35	Welcome Remarks	Prof. Shobhakar Dhakal
13:35 - 13:40	Opening Remarks	Dr. Wiparat De-ong
13:40 - 13:45	Opening Remarks	Prof. Huzhong Guo
13:45 - 14:05	Introduction to CBAS and Hopes of Big Earth Data for Sustainable Development Goals	Prof. Yubao Qiu
14:05 - 14:25	Introduction to Support Reporting in SDGs in Thailand	Dr. Thuttai Keeratpongpaiboon
14:25 - 14:45	Opportunities on Big Earth Data for Sustainable Development Goals	Dr. Ekborin Winjikul
14:45 - 15:05	Panel Perspectives in Support of SDGs	Dr. Christophe Bontemps
15:05 - 15:45	Panel Discussion: Towards Collaboration on Big Earth Data for Sustainable Development Goals	Moderator: Dr. Monthip Sritratana Panelists: Dr. Yubao Qiu, Dr. Thuttai Keeratpongpaiboon, Dr. Ekborin Winjikul, Dr. Christophe Bontemps

CONTACT

Dr. Monthip Sritratana
Director, Digital Belt and Road International Center of Excellence - Bangkok
Senior Advisor, National Research Council of Thailand
E: monthip2007@gmail.com | +66-81-874-0447

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Organized by CEWE

Strengthening collaboration network between Thailand and China in the field of environment and sustainable development

Addressing SDG6 Challenges through Government-Industry-Academia Linkage in the Belt and Road Region

10:00 - 12:30 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours) 14:00 - 17:00 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours)

PROGRAM

10:00 - 10:05	Welcome Remarks	Prof. Shobhakar Dhakal
10:05 - 10:10	Opening Remarks	Dr. Wiparat De-ong
10:10 - 10:15	Opening Remarks	Prof. Yongtao Zhang
10:15 - 10:30	Topic 1: A Comparative Study on the Change of Hydrological Process and Fluxes in the Julong and Chao Phraya River Basins under Changing Climate	Prof. Dawen Yang, Dr. Jerason Santisorn
10:30 - 10:45	Topic 2: Watershed based Adaptation to Climate Change: A Comparative Study between Julong River (China) and Chao Phraya River (Thailand)	Prof. Jintiang Huang, Prof. Vilas Nihattannanon
10:45 - 11:00	Topic 3: Biogeochemical changes and adaptation mechanisms in response to anthropogenic impacts in watersheds: A comparative study between Julong River (China) and Chao Phraya River (Thailand)	Prof. Shen Yu, Dr. Wenchao Xue
11:00 - 11:15	Panel Discussion	Moderator: Dr. Monthip Sritratana Panelists: Prof. Dawen Yang, Dr. Jerason Santisorn, Prof. Jintiang Huang, Prof. Vilas Nihattannanon, Prof. Shen Yu, Dr. Thudsakumpornphan
11:15 - 11:30	Summary and Closing Remarks	Dr. Monthip Sritratana

CONTACT

Dr. Monthip Sritratana
Senior Advisor, National Research Council of Thailand
E: monthip2007@gmail.com | +66-81-874-0447

Register Here [QR Code]

Organized by AIT BRRC

Strengthening collaboration network between Thailand and China in the field of environment and sustainable development

Strengthening Thailand-China's Collaboration on Climate Action

30 Sep 2022 13:30-15:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours) 14:30 - 16:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours)

Register Here [QR Code]

Organized by AIT BRRC

Strengthening collaboration network between Thailand and China in the field of environment and sustainable development

STRENGTHENING THAILAND-CHINA'S COLLABORATION ON BIG DATA FOR THE SUSTAINABLE DEVELOPMENT GOALS

2 September 2022 13:30-15:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours) 14:30 - 16:50 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours)

Register Here [QR Code]

Organized by AIT BRRC

Strengthening collaboration network between Thailand and China in the field of environment and sustainable development

THAILAND-CHINA'S COLLABORATION ON SUSTAINABLE WATERSHED DEVELOPMENT IN THE CONTEXT OF THE "FUTURE EARTH" PROGRAM AND FUTURE OPPORTUNITIES

5 August 2022 09:00-10:30 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours) 10:00 - 12:30 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours)

Register Here [QR Code]

Organized by AIT BRRC

Strengthening collaboration network between Thailand and China in the field of environment and sustainable development

AIT Belt and Road Webinar Series #5: ADDRESSING SDG6 CHALLENGES THROUGH GOVERNMENT-INDUSTRY-ACADEMIA LINKAGE IN THE BELT AND ROAD REGION

27 June 2022 13:00-16:00 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours) 14:00 - 17:00 hrs (Bangkok Time ICT) (Indochina time ICT/UTC+7+8 hours)

Register Here [QR Code]



Completed Project



“Thailand’s Bio-Circular-Green Economy Model: Awareness Raising, Capacity Building and International Perspectives”

Project successfully completed in August, 2023

This project aimed to enhance the public awareness and promote the Thailand's Bio-Circular-Green Economy Model in four thematic areas. A series of four seminars were delivered through video conferencing. The seminars covered the four sectors on which the BCG model focuses: (i) BCG and the food and agriculture sector; (ii) BCG and the health and wellness sector; (iii) BCG and the bioenergy, biomaterial and biochemical sector; and (iv) BCG and the tourism and creative economy sector. A national conference was held following the final seminar to present the major findings from the four seminars and identify priority actions and opportunities for future application of the BCG model in Thailand and regionally.

The collage displays five seminar program sheets, each for a different thematic area:

- 1. BCG Model and the Food and Agriculture Sector:** Held on 24 June 2022 (13:30-16:10 hrs and 14:30-17:10 hrs). The program includes opening messages, keynote speeches, and panel discussions on challenges and opportunities in the food and agriculture sector.
- 2. BCG Model in the Health and Wellbeing Sector:** Held on 25 June 2022 (14:30-16:05 hrs). The program covers model challenges, keynotes on health and wellness, and panel discussions on the health and wellbeing sector.
- 3. BCG Model in the Bioenergy, Biomaterial and Biochemical Sector:** Held on 30-16:05 hrs. The program includes keynote messages, panel discussions on model challenges, and panel discussions on the bioenergy, biomaterial and biochemical sector.
- 4. BCG Model in the Tourism and Creative Economy Sector:** Held on 23 September 2022 (13:30-15:15 hrs). The program includes keynote messages, panel discussions on model challenges, and panel discussions on the tourism and creative economy sector.
- 5. Thailand's Bio-Circular-Green Economy Model: Awareness Raising, Capacity Building and International Perspectives:** Held on 24 October 2022 (13:30-15:50 hrs). This is the national conference summarizing the findings from the four seminars.

This banner provides a quick overview of the four thematic seminars and the national conference, each with a QR code for registration.

Co-organization of

“Green Tech Expo 2023”, BITEC Bang Na, Bangkok, Thailand

November 9- 12, 2023

This event mainly focuses on green mobility, green storage & charger & component, green energy (energy saving, wind, solar, etc.), green tech (waste management, pollution control, wastewater treatment), green product. The theme “Towards the Transition to Newer, Greener, Sustained Evergreen Technology” fits well into AIT’s vision, such as AIT’s Botanical Garden Campus Towards Net Zero by 2030, and the AIT BOI Science and Technology Park. BRRC actively facilitated AIT’s co-organizing of the Green Technology Expo 2023 and coordinated successfully with Thailand-Sino Association of Sciences and Technology (TSAST), China Council for the Promotion of International Trade–Shanghai (CCPIT-Shanghai), Chinese Academy of Sciences Innovation Cooperation Center Bangkok (CASICCB), Ministry of Energy Thailand and Ministry of Higher Education, Science, Research and Innovation Thailand, and Z Infinity Company, for the event.



NETWORKING & PARTNERSHIP

Branding and Promotion Trip to China

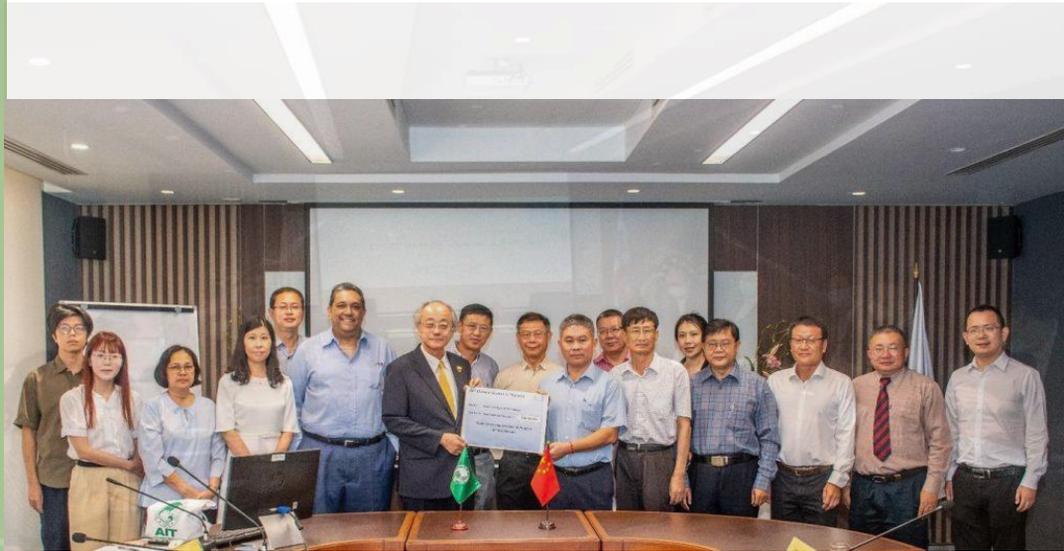
Seek potential research collaboration and joint projects with Chinese Universities, Research Institutes and Organizations

January, 2023

Organizations and Institutes has been visited:

- ❖ Sichuan New Energy Vehicle Innovation Center
- ❖ Chengdu University
- ❖ Chinese Research Academy of Environmental Sciences
- ❖ Digital Belt and Road & International Research Center of Big Data for Sustainable Development Goals
- ❖ Research Center of Eco-Environment Sciences, Chinese Academy of Sciences;
- ❖ University of Chinese Academy of Sciences
- ❖ TusPark Beijing
- ❖ China Renewable Energy Engineering Institute





AIT Chinese Alumni Donation for Student Exchange Program Scholarship

February, 2023



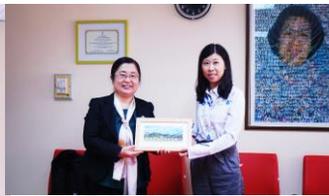


Guangzhou Greater Bay Area Modern Industry Development Research Institute, China (MIDRI) visited AIT on March 3rd, 2023



Discussions on possible collaborations between two institutes about joint training program, cooperation agreement and new opportunities for jointly co-organization of the Belt and Road conference in Thailand, have been carried out in the meeting.

Beijing Normal University Zhuhai Campus (BNU) Visited AIT on March 16th, 2023



Preliminary discussions on student exchange and short-term visiting programs, scholarship opportunities and research collaboration between AIT and Beijing Normal University.



Beijing Normal University visited AIT on June 27th, 2023



Discussions on collaboration opportunities, including joint research projects, faculty exchange programs, and initiatives to facilitate student mobility. Both parties emphasized the significance of identifying common research interests and complementary areas of expertise.

AIT BRRCC Visited Chinese Academy of Sciences Bangkok Innovation Center (CAS ICCB)



中国科学院
CHINESE ACADEMY OF SCIENCES

The visit aims to introduce the center and initiate preliminary discussions for future cooperation. BRRCC intends to establish a partnership with the Chinese Academy of Sciences Bangkok Innovation Center to leverage each other's strengths in scientific innovation and sustainable development.



Water Sentient Co., Ltd Visited AIT BRRC on August 3rd, 2023



Potential collaboration between AIT BRRC in aspects of talent resource from AIT, training programs, key technology localization of the company in Thailand, etc. has been discussed in this communication. An MOU between the two organizations is under preparation.

Lihe Technology(Hunan) Co., Ltd. from China Visited AIT BRRCon August 16th, 2023



BRRC actively facilitating and witnessing the MoU signing between AIT and Lhe Technology (Hunan) Co., Ltd. The MoU laid the foundation for cooperations between BRRC and Lihe Technology in aspects of water and air quality monitoring. Discussions on joint laboratory under Belt and Road Initiative have been made between BRRC and Lihe Technology.

Tsinghua Shenzhen International Graduate School Visited AIT on August 28th, 2023



Preliminary discussions include joint research projects, faculty exchange programs, and initiatives to facilitate student mobility, such as training programs, exchange summer school program, short term research program for students, etc.

Chongqing Renewable Energy Society(CRES) from China visited AIT BRC on November 28th, 2023



Preliminary discussions in collaborations of joint organization of seminars related to green energy, green technology connecting academic researches and industrial practices, southeast Asia cooperation research projects, were carried out. An MoU between AIT and CRES was signed in December for specific collaborations.



Beijing Normal University Belt and Road School and A Research Trip to CSCECTH on November 28th, 2023



A preliminary communication on the introductions of how the two Belt and Road Institutions respectively have been engaging in researches and works under BRI have been made. The two institutions have different focuses and complementary strengths in past work, both have been enthusiastically devoting to BRI. Discussions focused on combining the strengths of the two institutions to enhance Belt and Road works and promote regional economic innovation and development. A research trip to the construction site of Thai-China High Speed Railway of CSCECTH was conducted.



Ford Foundation visited BRRC on December 22, 2023



Mission

We believe in the inherent dignity of all people. But around the world, too many people are excluded from the political, economic, and social institutions that shape their lives.

In addressing this reality, we are guided by a vision of social justice—a world in which all individuals, communities, and peoples work toward the protection and full expression of their human rights; are active participants in the decisions that affect them; share equitably in the knowledge, wealth, and resources of society; and are free to achieve their full potential.

Across eight decades, our mission has been to reduce poverty and injustice, strengthen democratic values, promote international cooperation, and advance human achievement.



A preliminary communication on potential collaborations in aspects of knowledge exchange, and sustainable agriculture in the Belt and Road region was carried out between the two parties during this visiting.

Participation in the First Belt and Road Conference on Science and Technology Exchange in Chongqing, China

November 6th to 7th

Dr. Wenchao, Xue, Director of AIT BRRC participated in the 1st Belt and Road Conference on Science and Technology Exchange and the ANSO Young Scientists Forum.

The theme of this inaugural Belt and Road Conference on Science and Technology Exchange is **“Together for Innovation, Development for All”**.



Center Work Summary 2023

BRI is a transcontinental long-term development strategy which aims at infrastructure development and acceleration of the economic integration of countries along the Silk Road Economic Belt and the "21st Century Maritime Silk Road". AIT is seated in a key location along the 21st Century Maritime Silk Road in Southeast Asia, which represents strategic advantage for future development as an international higher education institution and as a prestigious research institution that aims to support regional and international economic development. AIT BRRC was established under the BRI with the vision of developing into an international platform for collaborative and innovative research towards robust economic growth and sustainable development in the Belt and Road region.

2023 is the 10th year of the Belt and Road Initiative(BRI) since its inauguration and also the fourth year of the establishment of AIT BRRC. BRRC has been dedicated to the advancement of Belt and Road achievement since its establishment in 2019. In the past year of 2023, BRRC have been trying the best to expand networks and strengthen the connection with organizations both in Thailand and China. Apart from the center's efforts in actively reaching out to potential partners in branding trips and collaborative activities, this year witnessed increasing number of visiting groups from Chinese universities, organizations, companies, etc. The connections with Chinese corporations that are planning to set up subsidiaries or localize key technologies in Thailand have also been strengthened. These efforts made in 2023 have laid a solid foundation for partnerships through specific projects in the coming year of 2024.

With the work and achievement of 2023, we envision 2024 as a year of prospective fruits in collaborations with more universities, private companies, research institutions in the region. The year 2024 will also be a year of actively learning new experiences with works under BRI from other Belt and Road organizations.



Contact us

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