



中国-加纳港湾保护与开发联合实验室技术培训（一）

海岸动力学基础理论及模拟方法

国家重点研发计划政府间国际科技创新合作重点专项（2023YFE0126300）

主办单位：河海大学海岸灾害及防护教育部重点实验室

会议手册

2024年9月23-30日 中国南京



会议背景

“一带一路”合作倡议提出以来，中非双方在经济、政治、文化等多个领域的合作日益密切。非洲作为全球贸易的重要组成部分，其港口的发展对于促进区域经济一体化和全球贸易流通具有重要作用。2018年非盟委员会组织召开首届非洲船东峰会，将“港口业务和海上运输”定为海洋经济优先发展领域。中国已在非洲投资建设30多个港口，建立良好的双、多边经济合作机制，改善了当地基础设施建设。

随着非洲经济建设的快速发展，现存的港口吞吐能力已不能满足区域需要，存在广泛的港湾工程扩建需求。非洲海岸水沙运动特性复杂，波浪特征以长周期涌浪为主，存在独特的双峰波能谱特征，带来海岸线演变、水沙运动、生态环境等多方面问题，中国-非洲港湾保护与开发面临新机遇和新挑战。在此背景下，河海大学中国-加纳港湾保护与开发联合实验室举办本次港湾保护与开发技术培训班，旨在深化中非应用技术与科技人文交流，推动双方研究人员的交流合作及相关领域的前沿研究，为非洲港口的可持续发展提供强有力的技术支撑和人才支持。

本次培训班得到国家重点研发计划政府间国际科技创新合作重点专项（2023YFE0126300）支持。



总体议程

开班仪式
中国-加纳港湾保护与开发
联合实验室建设进展
汇报人：中加联合实验室主任 郑金海教授

9月23日
星期一

14:00~14:30

主讲人
陈伟秋

9月23日
星期一

15:40~17:10

刘海成

9月24日
星期二

10:00~11:30

童林龙

9月25日
星期三

10:00~11:30

隋倜倜

9月28日
星期六

10:00~11:30

迟善航

9月27日
星期五

10:00~11:30

何俊彪

9月26日
星期四

10:00~11:30

张炫

9月29日
星期日

10:00~11:30

余豪丰

9月30日
星期一

10:00~11:30

结课仪式
颁发证书

9月30日
星期一

11:30~12:00

培训地点：河海大学牛首山科技园 水科学大楼511会议室

时间安排

日期	时间	授课内容	授课专家
9月23日	14:00-14:45	参观L形港池	-
	14:45-15:00	合照	-
	15:00-15:30	开班仪式 中国-加纳港湾保护与开发 联合实验室建设进展	郑金海
	15:30-15:40	茶歇	-
	15:40-17:10	海堤越浪预测方法	陈伟秋
9月24日	10:00-11:30	大水槽研究进展	刘海成
	14:00-16:00	水韵课堂（一）： 中国人与海岸工程	张继生
9月25日	10:00-11:30	近岸波浪与海工建筑物相互作用 数值模拟软件与应用	童林龙
9月26日	10:00-11:30	以色列南部区阿什杜德港 建设关键技术	何俊彪
9月27日	10:00-11:30	沙质海岸岸线演变监测及模拟技术	迟善航
9月28日	10:00-11:30	海洋土力学及结构物基础稳定	隋侗侗
	14:00-16:00	水韵课堂（二）： 大运河与中华文明	朱晓兰
9月29日	10:00-11:30	波流相互作用及边界层内湍流拟序结构 演变特征	张炫
9月30日	10:00-11:30	高精度桥梁水力学模型的开发	余豪丰
	11:30-12:00	结课仪式、颁发证书	-

培训地点：河海大学牛首山科技园 水科学大楼511会议室

参会人员

序号	授课专家	单位	职务/职称
1	郑金海	河海大学	副校长/教授
2	何俊彪	中国港湾工程有限责任公司	科技部总经理/教授级高工
3	张继生	河海大学	国际合作处处长/教授
4	隋侗侗	河海大学	教授
5	陈伟秋	河海大学	研究员
6	刘海成	天津水运工程科学研究院	科技处处长/高级工程师
7	童林龙	河海大学	副教授
8	张炫	河海大学	副研究员
9	余豪丰	南昌工程学院	讲师
10	朱晓兰	河海大学	讲师
11	迟善航	河海大学	助理研究员
序号	学员	国籍	职称
1	Benedict Quansah	加纳	博士生
2	Joshua Bondzie	加纳	博士生
3	Ernest Kploanyi	加纳	博士生
4	George Agyen	加纳	博士生
5	Anthony Dzidzornu	加纳	博士生
6	Areej Sabir	巴基斯坦	博士生
7	Pashupati Mandal	尼泊尔	博士生
8	Victor Setordjie	加纳	博士生
9	Phyu Sin Thet	缅甸	博士生
10	Ahmed Rouabha	阿尔及利亚	硕士生
11	Fiina Ngotipeni	纳米比亚	硕士生
12	Said Berbar	阿尔及利亚	硕士生
13	Ilkhomjon	乌兹别克斯坦	硕士生
14	Richard Aidoo	加纳	硕士生
15	Segbefia Joseph	加纳	硕士生
16	Ubaid Ullah	巴基斯坦	硕士生
17	Yasser Benzaid	阿尔及利亚	硕士生
18	Su Pyae Thar	缅甸	硕士生
19	Abdullah Razak	加纳	本科生
20	Abrefa Emmanuel	加纳	本科生
21	Richard Acquah	加纳	本科生
22	Adu Priscilla	加纳	本科生
23	Amanafrika Hunter	加纳	本科生
24	Appiah Benjamin	加纳	本科生
25	Arhin Adom	加纳	本科生
26	Bright Addison	加纳	本科生
27	Christian Sarpong	加纳	本科生
28	Daniel Agyei	加纳	本科生
29	Fatima Fuseini	加纳	本科生
30	Frempong Opoku	加纳	本科生
31	Gyasi Emmanuel	加纳	本科生
32	Henry Amoatey	加纳	本科生
33	Kwaku Donkor	加纳	本科生

参会人员

序号	学员	国籍	职称
34	Kyei Eunice	加纳	本科生
35	Massawudu Yussif	加纳	本科生
36	Mathias Adjei	加纳	本科生
37	Favour Narh	加纳	本科生
38	Okyere Brobbey	加纳	本科生
39	Samuel Kwaku	加纳	本科生
40	Sarah Sam	加纳	本科生
41	Sarpong Twum	加纳	本科生
42	Tetteh Angela	加纳	本科生
43	Tsitey Mawuli	加纳	本科生
44	Kyei Ansah	加纳	本科生
45	Asasey Kweku	加纳	本科生
46	林斐	中国	博士生
47	刘宇轩	中国	博士生
48	杨沐盛	中国	博士生
49	杨蕴涵	中国	博士生
50	杨镇娣	中国	博士生
51	张凯	中国	博士生
52	张利鹏	中国	博士生
53	高亦康	中国	硕士生
54	黄宇	中国	硕士生
55	姜启翻	中国	硕士生
56	金明晖	中国	硕士生
57	李友佳	中国	硕士生
58	吕天宇	中国	硕士生
59	马兰青	中国	硕士生
60	彭莉	中国	硕士生
61	唐嘉恒	中国	硕士生
62	肖子炜	中国	硕士生
63	杨齐	中国	硕士生
64	姚昌浩	中国	硕士生
65	袁其伟	中国	硕士生
66	张书一	中国	硕士生
67	周子航	中国	硕士生
68	朱航	中国	硕士生
69	兰艺迪	中国	本科生
70	吕舒纯	中国	本科生
71	张康喆	中国	本科生

承办单位

河海大学海岸灾害及防护教育部重点实验室

河海大学海岸灾害及防护教育部重点实验室于2005年获批建设，瞄准生态文明建设和经济社会发展对海岸防灾减灾的新要求，聚力解决海岸灾害前后全链条过程中的关键科学问题。实验室设立四个研究方向：海岸灾害形成与发展机制、海岸灾害预警与预报、海岸带保护修复和防灾减灾、海岸灾害评估与对策。

中国-加纳港湾保护与开发联合实验室

中国-加纳港湾保护与开发联合实验室由河海大学牵头，联合加纳University of Cape Coast，交通运输部天津水运工程科学研究所，中国港湾（科特迪瓦）工程有限责任公司西非中心共同建设，得到国家重点研发计划政府间国际科技创新合作重点专项支持。按照“联合共建-技术创新-人才培养”的总体思路，开展西非海域水动力泥沙运移和岸线演变研究，研发适应非洲西海岸特点的环境友好型港湾保护和开发技术，促进中国-加纳科技合作与人文交流，推进中国水运工程和海岸保护标准规范“走出去”，为中非港航建设与海湾保护提供技术支撑和人才保障，落实习近平主席在中非合作论坛第八届部长级会议上提出建设中非联合实验室的重要倡议。

组织团队

主席

郑金海

秘书处

隋侗侗（秘书长）

杨沐盛 姜启翻

Narh Favour Boadi

唐嘉恒

吕天宇

Amanafrika Hunter

朱航

地图与天气

河海大学牛首山科技园

地址：江苏省南京市江宁区佛城西路189号



交通枢纽到牛首山科技园交通方式：

- 地铁 S1 线到河海大学佛城西路站，转乘公交 754 到牛首山风景区东站下车，对面即到；
- 校车到江宁校区南门下车，出南门后左转 100 米转乘公交 754 到牛首山风景区东站下车，对面即到；
- 自驾前往：距南京南站 10.3km，约 25 分钟；距南京站 25km，约 41 分钟；距禄口机场 33km，约 60 分钟

会议期间天气状况

9月23日

9月30日



多云 19~28°C



Series Training for Harbor Conservancy and Development (I)

Theories and Simulations of Coastal Dynamics

National Key Research and Development Program Intergovernmental Key Project for International Science and Technology Innovation Cooperation (2023YFE0126300)

**Organizer: Key Laboratory of Coastal Disaster and Protection
(Hohai University), Ministry of Education, China**

Program

September 23-30th, 2024, Nanjing, China



Background

Since the proposal of the Belt and Road Initiative, cooperation between China and Africa has increasingly deepened across economic, political, cultural and many other sectors. As a vital component of global trade, Africa's port development plays a significant role in fostering regional economic integration and promoting global trade flows. In 2018, the African Union Commission convened the inaugural African Shipowners' Summit, designating "port operations and maritime transport" as priority objects for the development of the blue economy. China has invested in the construction of over 30 ports in Africa, which established effective bilateral and multilateral economic cooperation mechanisms and improved local infrastructure development.

With the rapid economic development in Africa, the capacity of existing ports is no longer sufficient to meet regional demands, highlighting the urgent need for port expansion projects. The unique hydrodynamic conditions along Africa's coastlines are characterized by long-period swells and a distinctive double-peaked wave spectrum. These hydrodynamic conditions lead to issues related to coastal evolution, sediment transport, and the ecological environment. These factors present new opportunities as well as challenges for China-Africa cooperation in port protection and development. In this context, the Sino-Ghana Joint Laboratory for Port Protection and Development at Hohai University organizes this technical training workshop on port protection and development. The objectives are to advance cutting-edge and applied technical research, deepen scientific and cultural exchanges between China and Africa, promote collaboration between researchers, and provide strong technical and human resource support for the sustainable development of African ports.

This training workshop is supported by the National Key Research and Development Program Intergovernmental Key Project for International Science and Technology Innovation Cooperation (Grant No. 2023YFE0126300).



Schedule

Opening Ceremony
Progress in the Construction of Sino-Ghana Joint Laboratory for
Harbor Conservancy and Development
by Professor Zheng Jinhai, Director of CGHCode



14:00~14:30

Lecturer

Weiqliu Chen



15:40~17:10

Haicheng Liu



10:00~11:30

Linlong Tong



10:00~11:30

Titi Sui



10:00~11:30

Shanhang Chi



10:00~11:30

Junbiao He



10:00~11:30

Xuan Zhang



10:00~11:30

Haofeng Yu



10:00~11:30

Closing ceremony
Certificate issuance



11:30~12:00

Location: 511 Water Science Building, Niushoushan Science and Technology Institute, (Hohai University)

Agenda

Date	Time	Presentation	Lecturer
23rd-Sep	14:00-14:45	Visit L-shaped wave basin	-
	14:45-15:00	Group Photo	-
	15:00-15:30	Opening Ceremony Progress in the Construction of Sino-Ghana Joint Laboratory for Harbor Conservancy and Development	Jinhai Zheng
	15:30-15:40	Tea Break	-
	15:40-17:10	Prediction of Wave Overtopping at Dikes	Weiqiu Chen
24th-Sep	10:00-11:30	Research Progress of Large Wave Flume in China	Haicheng Liu
	14:00-16:00	Water Harmony Lecture(I): The Chinese and Coastal Engineering	Jisheng Zhang
25th-Sep	10:00-11:30	Software and Application for the Interaction between Waves and Offshore Structures	Linlong Tong
26th-Sep	10:00-11:30	Key Construction Technology of Hadarom Port, Ashdod, Israel	Junbiao He
27th-Sep	10:00-11:30	Monitoring and Simulation Technology of Sandy Coast Shoreline Evolution	Shanhang Chi
28th-Sep	10:00-11:30	Marine Soil Mechanics and Foundation Instability	Titi Sui
	14:00-16:00	Water Harmony Lecture(II): The Grand Canal and the Chinese Civilization	Xiaolan Zhu
29th-Sep	10:00-11:30	Wave-Current Interaction and Evolution of Turbulent Coherent Structures in the Boundary Layers	Xuan Zhang
30th-Sep	10:00-11:30	The Development of a High-Resolution Nested Bridge Hydraulic Model	Haofeng Yu
	11:30-12:00	Closing Ceremony and Certificate Insurance	-

Location: 511 Water Science Building, Niushoushan Science and Technology Institute, (Hohai University)

Attendee

No.	Expert	Organization	Title
1	Jinhai Zheng	Hohai University	Professor
2	Junbiao He	China Harbour Engineering Company Ltd.	Professor-level Engineer
3	Jisheng Zhang	Hohai University	Professor
4	Titi Sui	Hohai University	Professor
5	Weiqiu Chen	Hohai University	Professor
6	Haicheng Liu	Tianjin Research Institute for Water Transport Engineering.M.O.T.	Senior Engineer
7	Linlong Tong	Hohai University	Associate Professor
8	Xuan Zhang	Hohai University	Associate Professor
9	Haofeng Yu	Nanchang Institute of Technology	Lecturer
10	Xiaolan Zhu	Hohai University	Lecture
11	Shanhang Chi	Hohai University	Assistant Professor
No.	Student	Nationality	Title
1	Benedict Quansah	Ghana	PhD Student
2	Joshua Bondzie	Ghana	PhD Student
3	Ernest Kploanyi	Ghana	PhD Student
4	George Agyen	Ghana	PhD Student
5	Anthony Dzidzornu	Ghana	PhD Student
6	Areej Sabir	Pakistan	PhD Student
7	Pashupati Mandal	Nepal	PhD Student
8	Victor Setordjie	Ghana	PhD Student
9	Phyu Sin Thet	Myanmar	PhD Student
10	Ahmed Rouabha	Algeria	MEng Student
11	Fiina Ngotipeni	Namibia	MEng Student
12	Said Berbar	Algeria	MEng Student
13	Ilkhomjon	Uzbekistan	MEng Student
14	Richard Aidoo	Ghana	MEng Student
15	Segbefia Joseph	Ghana	MEng Student
16	Ubaid Ullah	Pakistan	MEng Student
17	Yasser Benzaid	Algeria	MEng Student
18	Su Pyae Thar	Myanmar	MEng Student
19	Abdullah Razak	Ghana	Undergrad Student
20	Abrefa Emmanuel	Ghana	Undergrad Student
21	Richard Acquah	Ghana	Undergrad Student
22	Adu Priscilla	Ghana	Undergrad Student
23	Amanafrika Hunter	Ghana	Undergrad Student
24	Appiah Benjamin	Ghana	Undergrad Student
25	Arhin Adom	Ghana	Undergrad Student
26	Bright Addison	Ghana	Undergrad Student
27	Christian Sarpong	Ghana	Undergrad Student
28	Daniel Agyei	Ghana	Undergrad Student
29	Fatima Fuseini	Ghana	Undergrad Student
30	Frempong Opoku	Ghana	Undergrad Student
31	Gyasi Emmanuel	Ghana	Undergrad Student
32	Henry Amoatey	Ghana	Undergrad Student
33	Kwaku Donkor	Ghana	Undergrad Student

Attendee

No.	Student	Nationality	Title
34	Kyei Eunice	Ghana	Undergrad Student
35	Massawudu Yussif	Ghana	Undergrad Student
36	Mathias Adjei	Ghana	Undergrad Student
37	Favour Narh	Ghana	Undergrad Student
38	Okyere Brobbey	Ghana	Undergrad Student
39	Samuel Kwaku	Ghana	Undergrad Student
40	Sarah Sam	Ghana	Undergrad Student
41	Sarpong Twum	Ghana	Undergrad Student
42	Tetteh Angela	Ghana	Undergrad Student
43	Tsitey Mawuli	Ghana	Undergrad Student
44	Kyei Ansah	Ghana	Undergrad Student
45	Asasey Kweku	Ghana	Undergrad Student
46	Fei Lin	China	PhD Student
47	Yuxuan Liu	China	PhD Student
48	Musheng Yang	China	PhD Student
49	Yunhan Yang	China	PhD Student
50	Zhendi Yang	China	PhD Student
51	Kai Zhang	China	PhD Student
52	Lipeng Zhang	China	PhD Student
53	Yikang Gao	China	MEng Student
54	Yu Huang	China	MEng Student
55	Qihe Jiang	China	MEng Student
56	Minghui Jin	China	MEng Student
57	Youjia Li	China	MEng Student
58	Tianyu Lv	China	MEng Student
59	Langqing Ma	China	MEng Student
60	Li Peng	China	MEng Student
61	Jiaheng Tang	China	MEng Student
62	Ziwei Xiao	China	MEng Student
63	Qi Yang	China	MEng Student
64	Changhao Yao	China	MEng Student
65	Qiwei Yuan	China	MEng Student
66	Shuyi Zhang	China	MEng Student
67	Zihang Zhou	China	MEng Student
68	Hang Zhu	China	MEng Student
69	Yidi Lan	China	Undergrad Student
70	Shuchun Lv	China	Undergrad Student
71	Kangzhe Zhang	China	Undergrad Student

Brief Introduction of the Organizers

Key Laboratory of Coastal Disaster and Protection (Hohai University), Ministry of Education

Key Laboratory of Coastal Disaster and Protection (Hohai University), Ministry of Education was approved for construction in 2005, focusing on addressing the new requirements of ecological civilization construction, as well as social and economic development, particularly in the area of coastal disaster prevention and mitigation. The laboratory's research is centered around four main directions, including coastal disaster formation and development mechanisms, coastal disaster early warning and forecasting, coastal zone protection and restoration, disaster prevention and mitigation, as well as coastal disaster assessment and countermeasures.

Sino-Ghana Joint Laboratory for Harbor Conservancy and Development

The Sino-Ghana Joint Laboratory for Harbor Conservancy and Development is led by Hohai University. It was jointly established by the University of Cape Coast of Ghana, the Tianjin Research Institute for Water Transport Engineering.M.O.T, and the West Africa Center of China Harbor (Côte d'Ivoire) Engineering Company, Ltd. The laboratory is supported by the National Key Research and Development Program Intergovernmental Key Project for International Science and Technology Innovation Cooperation (2023YFE0126300). Our research focuses on hydrodynamics, sediment transport and coastline evolution in West African coastal zone, aiming to develop environmentally-friendly harbor protection and development technologies tailored to the characteristics of the west coast of Africa. Additionally, we aim to promote scientific and technological cooperation and cultural exchanges between China and Ghana and to advocate for China's coastal protection standards in the region.

Organizing Committee

Chairman

Jinhai Zheng

Secretariat

Titi Sui (SG)

Musheng Yang Qihe Jiang Jiaheng Tang Tianyu Lv Hang Zhu

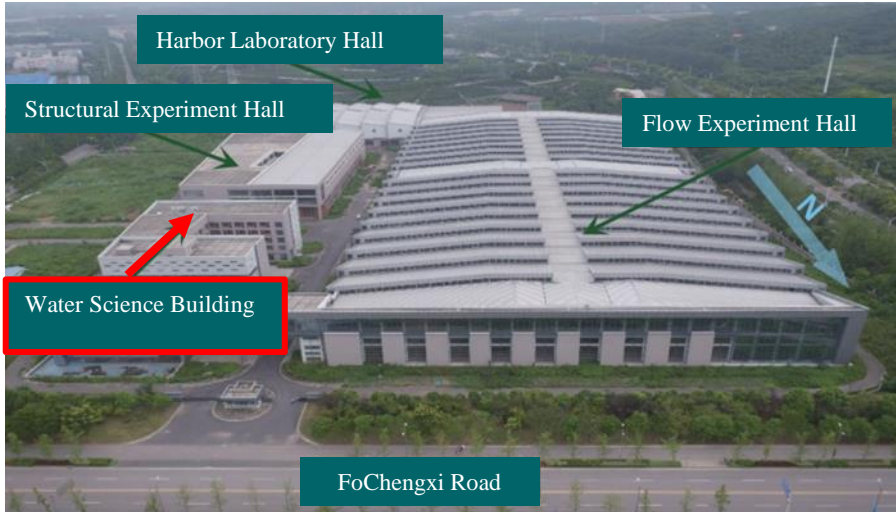
Narh Favour Boadi

Amanafrika Hunter

Map & Weather

Niushoushan Science and Technology Institute (Hohai University)

Address: 189 Fochengxi Road, Jiangning District, Nanjing, Jiangsu Province



Transportation to Niushoushan Science and Technology Institute:

- To get to Niushoushan Science and Technology Institute, you can take Metro Line S1 to Fochengxi Road Station of Hohai University. From there, transfer to Bus 754 and get off at Niushoushan Scenic Area East Station. The station is opposite to the bus stop.
- If you are arriving at Jiangning Campus by school bus, you can exit from the south gate, turn left, walk 100 meters, and then transfer to bus 754. Get off at the east station of Niushoushan Scenic Area, which is opposite to the bus stop.
- If you prefer to drive yourself, it is 10.3km from Nanjing South Station, which takes about 25 minutes. It is approximately 25km from Nanjing Station, requiring about 41 minutes of travel time. From Lukou Airport, it's about 33km, which takes approximately 60 minutes.

Weather

September 23rd



Cloudy

September 30th

19~28° C