Joint Global Summer School

A

Frontiers of Mechanics in Advanced Manufacturing and Intelligent Equipment

July 20–31, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: lizhonggang2001@163.com

General Information

Mechanics serves as a bridge between basic science and future technology. This summer school is co-organized by **Harbin Institute of Technology**, **Zhejiang University** and **Peking University**, and focuses on the latest advancements in mechanics, particularly in the research, design, and applications related to advanced manufacturing and intelligent equipment. Participants will gain in-depth knowledge in the fields of integrated design of mechanical structures, dynamics and control, high performance materials for engineering applications, and structural health monitoring, through both theoretical instruction and group research projects. During the first week, participants will study at Zhejiang University; during the second weed, they will study at Harbin Institute of Technology. This program offers an excellent opportunity for participants to access the frontiers of mechanics research, collaborate on challenging problems, and build a global academic network.

Attendance Requirements

Participants should be at the undergraduate level, with a background in mechanics, aerospace engineering, mechanical engineering, materials science, applied mathematics, or related fields. Proficiency in English is required, though some lectures will be given in Russian or Chinese with translation provided.

Lectures and Talks (Tentative)

(for reference only; specific details may be subject to change)

Date	Time	Activities	Information	Instructor(s)
Zhejiang University (Yuquan Campus)				
Jul. 19	All day	Registration	Check-in location: Yuquan Campus, ZJU	

Jul. 20	08:00–08:30	Opening Ceremony		
	08:30–11:30	Course	Fuzzy Control and Artificial Neural Networks	Assoc. Prof. Zhipeng Ma, ZJU
	14:00–17:00	Course	Structure and Mechanics of Soft Matter	Assoc. Prof. Zongrong Wang, ZJU
Jul. 21	08:30–11:30	Course	Mechanics of Flexible Electronics	Prof. Jizhou Song, ZJU
	14:00–17:00	Course	Mechanical Design of Soft Machines	Prof. Guoyong Mao, ZJU
Jul. 22	08:30–11:30	Course	When Mechanics Meets Biology	Prof. Bin Chen, ZJU
	14:00–17:00	Course	Principles of Turbomachinery and Applications of Artificial Intelligence	Prof. Kai Zhou, ZJU
Jul. 23	8:30–11:30	Course	Multi-field Coupling Modelling of Soft Active Materials	Prof. Rui Xiao, ZJU
	14:00–17:00	Course	Wave and Vibration Analysis of Smart Structures	Prof. Bin Wu, ZJU
Jul. 24	08:30–11:30	Course	Dimensional Analysis and Its Engineering Applications	Prof. Guoxing Lu, ZJU
	14:00–17:00	Course	Friction Laws in Compressible Turbulent Boundary Layers	Prof. Zhenhua Xia, ZJU
Jul. 25	Departure			
Harbin Institute of Technology				
Jul. 26	All day	Registration	Check-in location: HIT	
Jul. 27	08:30–11:30	Course	AI-Empowered Mechanics Simulation	Prof. from PKU
	14:00–17:00	Practice	Introduction to Relevant Skills	
Jul. 28	14:00–17:00	Practice	Teamwork-based Practice on Reusable Rockets, Unmanned Aerial Vehicles, or Intelligent Vehicle Robots	Prof. from HIT
	08:30–11:30	Practice		
Jul. 29	14:00–17:00	Practice		
	08:30–11:30	Practice		
Jul. 30	14:00–17:00	Practice		
	08:30–16:00	Practice		
Jul. 31	16:00–17:00	Competition		
	Departure	Closing Ceremony		

Accomodation And Travel Expense

There are no tuition and instructors will be provided with free accommodation in Hangzhou and Harbin from July 19-31, 2026. Participants shall bear their own international and domestic travel expenses(including travel expenses between Zhejiang and Harbin), insurance premiums and living expenses during the program.

Joint Global Summer School

B

Imprints Twin Cities

July 16–29, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact:Email: [lyb@hit.edu.cn]

Programme Overview

The “Imprints Twin Cities” HIT-HKU Joint Global Summer School explores responses to the dual challenges of globalization and climate change by establishing an international platform for teaching and research. Jointly hosted by Harbin Institute of Technology (HIT) and The University of Hong Kong (HKU), with support from the University of Nottingham (UK), Politecnico di Torino (Italy), and The University of Adelaide (Australia), this programme adopts the theme “Ice-Harbor Future+”. It takes the “Ice City” of Harbin and the global “Harbor Metropolis” of Hong Kong as its primary focus, guiding students through expert lectures, field trips, and innovative workshops to conduct comparative studies of urban form and explore future urban scenarios. This is a unique opportunity to engage in deep dialogue with world-renowned scholars and outstanding peers, stimulate creative thinking, and collaboratively shape the future of cities.

General Information

Programme Dates: July 16–29, 2026 (14 days in total)

- **Venue**: Harbin, China (July 16–24) / Hong Kong, China (July 25–29)
- **Language of Instruction**: English(Chinese interpretation available for selected lectures)
- **Organizers**:
  - **Host**: Harbin Institute of Technology (HIT), The University of Hong Kong (HKU)
  - **Co-organizers**: University of Nottingham (UK), Politecnico di Torino (Italy), The University of Adelaide (Australia)

Featured Faculty

- Prof. Anthony G.O. YEH , Academician, The University of Hong Kong
- Prof. SUN Cheng, Harbin Institute of Technology
- Prof. HUANG Bo, The University of Hong Kong
- Prof. HE Shenjing, The University of Hong Kong
- Prof. LENG Hong, Harbin Institute of Technology
- Senior Lecturer Miguel Paredes Maldonado, The University of Edinburgh, UK
- Prof. Michele BONINO, Politecnico di Torino, Italy
- Assoc. Prof. YANG Tianren, The University of Hong Kong

Attendance Requirements

- Target Participants: Outstanding undergraduate (sophomore level and above) and postgraduate students worldwide majoring in Architecture, Urban and Rural Planning, Landscape Architecture, Geographic Information Science, Urban Studies, and related fields.
- Language Proficiency: A good command of English (listening, speaking, reading, and writing) is required to fully participate in lectures, seminars, and group work conducted in English.
- Academic Interest: Strong interest in urban studies, sustainable development, and cross-cultural communication, with a collaborative spirit.

Programme Schedule

Date	Venue	Key Activities
July 16	Harbin	Arrival & Registration
July 17	Harbin	Opening Ceremony, Keynote Lectures, Lab Visits
July 18	Harbin	Harbin Urban Field Study I
July 19	Harbin	Harbin Urban Field Study II
July 20	Harbin	Innovation Workshop I: Problem Definition & Concept Generation
July 21	Harbin	Innovation Workshop II: Scheme Development & Technical Support
July 22	Harbin	Mid-term Review: Progress Presentation & Cross-city Comparison
July 23	Harbin	Innovation Workshop III: Project Optimization & Presentation
July 24	Harbin	Innovation Workshop IV: Integration & Rehearsal
July 25	Harbin →Hong Kong	Travel to Hong Kong
July 26	Hong Kong	Keynote Lectures, Lab Visits
July 27	Hong Kong	Hong Kong Urban Field Study
July 28	Hong Kong	Final Exhibition Setup, Final Presentations & Defense, Closing Ceremony
July 29	Hong Kong	Departure

Note: The detailed schedule is subject to minor adjustments based on actual circumstances.)

Fees & Funding

- Tuition Fee: No tuition fee is required.

- What Is Covered:
  The programme will provide shared accommodation in Harbin (July 16–24) and basic medical insurance for the duration of the programme in China.

- What Participants Cover:
  Participants are responsible for their own:
  - Round-trip travel to Harbin and from Hong Kong
  - Accommodation in Hong Kong (July 25–29)
  - All meals throughout the programme
  - Local transportation for field visits and site investigations
  - Personal expenses

We look forward to meeting you in Harbin to explore urban development and shape the future of cities!

Global Summer School

Mechanics Exploration and Future Aerospace Vehicles

July 20–31, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: lizhonggang2001@163.com

General Information

Mechanics serves as a bridge between basic science and future technology. This summer school focuses on the latest advancements in mechanics, particularly in the research, design, and applications of next-generation space vehicles. Participants will gain in-depth knowledge in the fields of integrated design of space structures, dynamics and control, high performance materials for flight missions, and structural health monitoring, through both theoretical instruction and group research projects. This program offers an excellent opportunity for participants to access the frontiers of mechanics research, collaborate on challenging problems, and build a global academic network.

Attendance Requirements

Participants should be at the undergraduate level, with a background in mechanics, aerospace engineering, mechanical engineering, materials science, applied mathematics, or related fields. Proficiency in English is required, though some lectures will be given in Russian or Chinese with translation provided.

Lectures and Talks (Tentative)

The summer school offers three lectures and four seminar talks. Lecturers and speakers are invited from top institutions in Russia, Egypt, and China, including Lomonosov Moscow State University, Helwan University, Chinese Academy of Sciences, Harbin Institute of Technology, and Xiamen University, et al.

Lecturer/Speaker	Institution	Topic (preliminary)	Units (50 mins/unit)
Prof. Marat Dosaev	Lomonosov Moscow State University, Russia	Determining the Control Algorithm Parameters for Inverted Pendulum Stabilisation	8 (lecture)
Prof. Yasser Shabana	Helwan University, Egypt	Advanced Materials and Structures for Space Vehicles	8 (lecture)
Prof. Qing Xinlin	Xiamen University, China	Structural Health Monitoring for Aircraft	2 (talk)
Prof. Song Hengxu	Chinese Academy of Sciences, China	Dislocation Plasticity: Fundamentals and Applications in Contact Mechanics	2 (talk)
Prof. Li,Xiaole	King Abdullah University Of Science And Technology, Saudi Arabia	Evolving Test Methods for Fracture Property Evaluation of Interfaces	2 (talk)
Prof. Hu Shoufeng	AECC Commercial Aircraft Engine Co., Ltd., China	Opportunities and Challenges: Application of Composite Materials in Engines	2 (talk)

Group Research Project

Participants will be divided into teams of 5-8 members to work on a project focused on the structural design and safety assessment of space vehicles using composite materials. Each team will choose from one of four areas: general design of space vehicles, structural dynamics and control, strength and service life computation, or structural health monitoring of space vehicles.

<table>
<tr><th></th><th colspan="6">Week 1 (July 20—25)</th><th colspan="6">Week 2 (July 27—31)</th></tr>
<tr><th></th><th colspan="2">Mon</th><th>Tue</th><th>Wed</th><th>Thur</th><th>Fri</th><th>Sat</th><th colspan="2">Mon</th><th>Tue</th><th>Wed</th><th>Thur</th><th>Fri</th><th>Sat</th></tr>
<tr><td>M</td><td colspan="3">Opening Ceremony/ Course</td><td colspan="2">Course</td><td rowspan="3">Lecture /Campus Tour</td><td rowspan="3">Lecture/Campus Tour</td><td colspan="2">Group Research</td><td colspan="2">Group Research</td><td>Poster</td><td rowspan="3">Closing Ceremony</td></tr>
<tr><td rowspan="2">A</td><td colspan="3">Course</td><td colspan="2">Course</td><td colspan="2">Contest</td><td colspan="2">Seminar</td><td rowspan="2">Defense</td></tr>
<tr><td colspan="3">Group Research</td><td colspan="2">Group Research</td><td colspan="2">Group Research</td><td colspan="2">Group Research</td></tr>
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(Registration: July 19, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

A New Generation of Intelligent Information and Communication Technology

July 20–31, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: lihongzhi2014@hit.edu.cn

General Information

The theme of this international summer school is “A New Generation of Intelligent Information and Communication Technology,” focusing primarily on cutting-edge technologies in 5G, artificial intelligence, cloud computing, edge computing, and related fields. The program aims to guide undergraduate students in understanding the latest developments and future trends in advanced information and communication technology through lectures and courses delivered by world-class scholars, thereby deepening their understanding of intelligent information technology, next-generation communication systems, and the Internet of Things. The summer school explores the increasingly intelligent information and communication technology within the context of intelligent manufacturing, artificial intelligence, and its profound impact on global patterns (political, economic, cultural, etc.) and human lifestyles. The program also aims to stimulate students’ innovative thinking and enthusiasm for learning, fostering their interest in the future of information and communication technology and related interdisciplinary research areas, and lay a solid foundation for their future studies and research careers in these fields.

Program Dates and Times

The international summer school is tentatively scheduled from Jul 20th to Jul 31st, 2026. However, the final dates are subject to change based on actual conditions.

Attendance Requirements

Participants should be at the undergraduate level, with a background in electronic information engineering, communication engineering, Internet of Things engineering, or related fields. Proficiency in English is essential, as all lectures and courses will be conducted in English. Participants are encouraged to bring their own scientific and technological innovation projects to share and exchange during the international summer school.

Courses and Lectures（Tentative）

classroom teaching, and innovative practice. The detailed content of each stage is shown in the table below.

Module	Content	Class Hours	Credit
Academic Lectures	Four academic lectures on 5G/6G, artificial intelligence, edge computing, and related topics.	4*4	—
Course Teaching	International cutting-edge technologies for 3D video signal compression and communication	16	1
Practical Innovation	Radio Direction Finding: Design and Practice	24	1
Total credit hours		Total credits	
56		2	

Group Research Project

①International cutting-edge technologies for 3D video signal compression and communication

The course begins with an overview of the developmental history and application scenarios of 3D video, followed by an explanation of the technical processes involved in its capture, encoding, transmission, rendering, and quality assessment. Through this course, students will gain insight into the evolution and compression standards of 3D videos, understand the compression process, and acquire proficiency in fundamental 3D video compression methods.

②Radio signal source design and practice

The "Radio Direction Finding Design and Practice" is a practical innovation activity for students majoring in electronic information. It is mainly based on students' hands-on practice with the teacher's guidance as a supplement. The goal is to cultivate students' engineering awareness and innovation consciousness. The project integrates software and hardware implementation, requiring students to apply knowledge from radio wave theory, direction-finding techniques, antenna design, and related engineering practices. Through processes such as demand analysis, data search, scheme demonstration, design debugging, performance testing, analysis and summary, the design and implementation of the radio direction finding activity are completed. This course takes "Directional Perception - Signal Processing - Spatial Positioning" as the technical mainline. By designing and implementing a VHF band direction finding system based on a 3-unit octagon antenna, it aims to cultivate students' cognitive ability of radio wave spatial characteristics and their ability to construct complex systems. Following the "Theoretical Explanation - Independent Practice - System Verification" model, it integrates electromagnetic field theory, RF engineering and signal processing technology to complete a complete engineering loop from antenna design to target positioning.

Other Activity Arrangements

Museum Visits: Explore the School Museum and Space Museum to gain insights into the history and development of science and technology.

Lab Tours: Tour on-campus research laboratories and interact with researchers to experience cutting-edge research and innovation firsthand.

Project Sharing: Participate in the sharing and exchange of outstanding scientific and technological innovation projects to foster collaboration and inspire new ideas.

Networking Sessions: Connect with peers, faculty, and industry professionals through structured networking events to expand your professional network.

Outdoor Activities: Engage in outdoor activities to promote teamwork, relaxation, and a balance between academic and recreational experiences.

Global Summer School

Intelligent Robot

July 13–24, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: gengyanquan@hit.edu.cn

General Information

The theme of this summer school is "Intelligent Robot". Throughout the program, a variety of teaching content and activities will revolve around this theme. Technical topics include Frontiers of Robotics, Robotics and Artificial Intelligence, Micro- and Nanofluidic Systems. The summer school will leverage the resources of the National Key Laboratory of Robotics Technology and Systems at HIT and collaborate extensively with overseas scholars to fully harness its distinctive strengths. In addition, a key feature of this summer school is the practical activities involving robot design and competition. Led by domestic and foreign tutors, these activities will allow students to gain a deep understanding of the core aspects of robot technology. By combining theoretical learning with hands-on design practice, students will gain insight into the applications of robotics in mechanical engineering and related interdisciplinary fields. The program aims to ensure that every student achieves significant learning outcomes.

Attendance Requirements

Participants should be at the undergraduate or graduate level and have a background in mechanics, aerospace engineering, mechanical engineering, materials science, applied mathematics, or related fields. Proficiency in English is required.

Lectures and Talks (Tentative)

The summer school offers one lecture and four seminar talks. Lecturers and speakers are invited from top institutions in Europe and China, including Cardiff University, Heriot-Watt University, Harbin Institute of Technology, and the University of Nottingham.

Lecturer/Speaker	Title	Institution	Topic (Preliminary)	Units (50 mins/unit)
Kenneth T. V. Grattan	Professor, Fellow of the Royal Academy of Engineering	London Metropolitan University	Optical fiber sensing systems	16
Hegao Cai	Academician of Chinese Academy of Engineering, Professor	School of Mechanical and Electrical Engineering, Harbin Institute of Technology	The development of intelligent robots	4
Zhirong Liao	Associate professor	University of Nottingham	Advanced manufacturing technology	4
Emmanuel Brousseau	Professor	Cardiff University	Ultra-precision and micro-nano manufacturing	4
Xianwen Kong	Professor	Heriot-Watt University	Parallel robots	4
Zhaoyang Zeng/Jianan Liu	Engineer	School of mechanical and electrical engineering, Harbin Institute of Technology	Robot design and competition	4

Group Research Project

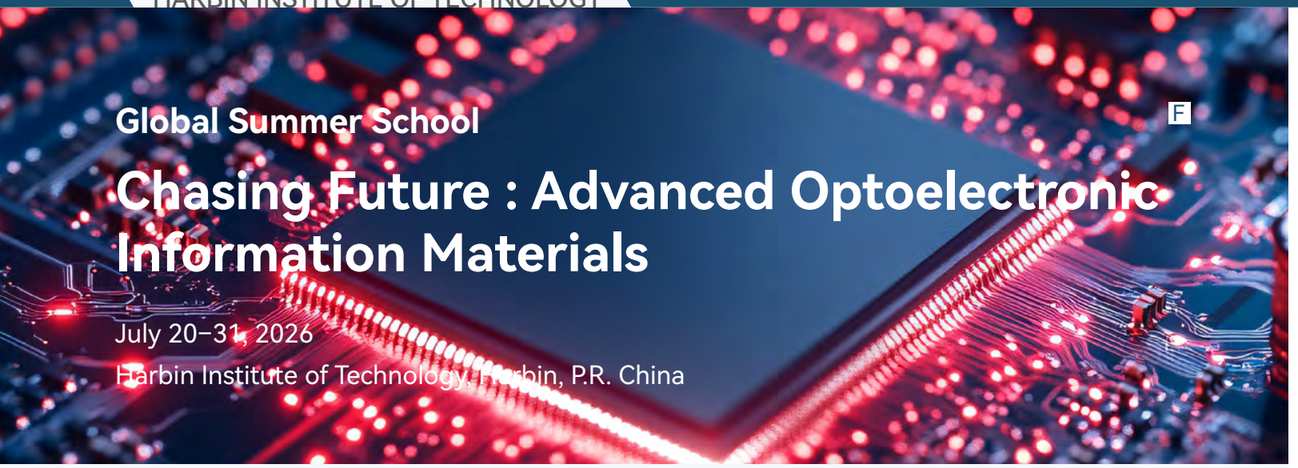
Participants will be divided into 6 or more teams, each consisting of 7-10 members, to work on a project focusing on the structural design and safety assessment of space vehicles constructed from composite materials. Each group can choose one area from four options: general design of space vehicles, structural dynamics and control, computation of strength and service life, or structural health monitoring of space vehicles.

Program Dates and Times

	Week 1 (July 13–17)					Week 2 (July 20–24)				
	Mon	Tue	Wed	Thur	Fri	Mon	Tue	Wed	Thur	Fri
M	Lecture				Seminar	Training		Competition		Competition
A	Seminar				Tour					Award ceremony

(Registration: July 12, 2026)

Please note that the program schedule is subject to change based on actual circumstances.



Global Summer School

Chasing Future : Advanced Optoelectronic Information Materials

July 20–31, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: yongzhang@hit.edu.cn

General Information

Optoelectronic information materials are indispensable key core materials in the high-tech field. The " Chasing Future : Advanced Optoelectronic Information Materials" Global Summer School will further integrate high-quality resources from top domestic and foreign scientific research institutions, and invite authoritative experts and scholars in this field worldwide. Focusing on cutting-edge scientific issues and interdisciplinary innovation points in the field of optoelectronic information materials, the school will offer a series of frontier lectures and innovative practical courses. Through theoretical learning and group research projects, participants will delve into areas such as materials for optoelectronic conversion, photovoltaic materials and devices, energy storage systems, and advanced display technologies. This summer school provides an excellent platform for participants to access the latest progress in optoelectronic information materials, communicate with global authoritative experts and scholars, collaborate to tackle technical challenges, and make academic partners worldwide. Participants are mainly expected to attend offline, with the option of online participation.

Attendance Requirements

Open to undergraduate or graduate students, applicants are required to have relevant academic backgrounds in materials science, optics, Optoelectronic Information Science, chemistry, electronic information science, etc. All participants must possess proficient English proficiency.

Lectures and Talks（Tentative）

The summer school will offer 16 class hours of academic courses and 4 special-topic lectures. Lecturers and speakers are invited from top universities and scientific research institutions worldwide, including City University of Hong Kong, Russian Academy of Sciences, Linköping University, University of Surrey, Chalmers University of Technology-, Jackson State University, and Aalborg University.

Topic (preliminary)	Units (50 mins/unit)
Advanced Optoelectronic Materials and Devices	16 (Academic courses)
Integrated Material, Interface, and Process Engineering for Highly Efficient Organic, Perovskite, and Hybrid Devices	2 (Lecture)
Optoelectronic Materials Design and Characterization by EPR	2 (Lecture)
The Interfacial Energy Barrier in Photovoltaic Devices	2 (Lecture)
Large-Area Flexible Organic Solar Cells: Research and Applications	2 (Lecture)

University of Technology-, Jackson State University, and Aalborg University.

Group Research Project

The group research project includes an innovative experiment and an academic competition on optoelectronic information materials and devices. In the experiment, students will prepare solar cell and photodetector materials and devices, integrating fundamental knowledge with hands-on practice to deepen their understanding. For the competition, 2-3 special topics will be set up, and students will participate in teams. Through independent learning of students and guidance from mentors, they will collect relevant knowledge on the topics, prepare competition materials and take part in the competition. The competition aims to help students understand the frontier of scientific research and cultivate their abilities in academic induction and summary, academic innovation and team cooperation.

Campus Culture and Technological Experience

Participants will be organized to visit Harbin Institute of Technology's University Museum, Aerospace Museum, and key laboratories of the School of Materials, so as to systematically understand the university's development history, brilliant achievements in the aerospace field, and scientific research achievements in the field of optoelectronic information materials. Senior professors of the university will be invited to give a themed sharing on "HIT Spirit and National Defense Responsibility" to enhance participants' patriotism and sense of mission in serving national strategic needs.

International Cultural Exchange

An international cultural exchange ice-breaking activity will be held at the beginning of the summer school. Through fun games, cultural displays, group cooperation and other forms, it will promote communication and understanding between Chinese and foreign participants; during the summer school, activities such as campus orienteering and cultural experience days will be organized to allow participants to enhance friendship through interaction, improve cross-cultural communication capabilities, and create an open and inclusive learning atmosphere.

Program Dates and Times

	Week 1 (July 20—24)					Week 2 (July 27—31)				
	Mon	Tue	Wed	Thur	Fri	Mon	Tue	Wed	Thur	Fri
M	Mentor Meeting	Courses	Courses	Lecture	Lecture	Innovative Experiment	Innovative Experiment	Group Research	Group Research	Defense
A	Campus Tour	Lecture	Lecture	Courses	Courses	Innovative Experiment	Innovative Experiment	Group Research	Group Research	Closing Ceremony

(Registration: July 19, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Smart Low-Carbon Energy and Aerospace Power

Jul. 20 – Aug.1, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: Prof. Jianyang Yu, Email: yujianyang@hit.edu.cn

General Information

The Summer School on " smart low-carbon energy and aerospace power", hosted by the School of Energy Science and Technology, serves as a platform for young students in the field of energy and power to exchange ideas. The program focuses on cutting-edge issues and research hotspots in energy and power, aiming to provide participants with an understanding of the current status and development trends of world energy science and technology. By attending the summer school, participants will gain insights into international frontier dynamics and major scientific issues in this field, broaden their academic horizons, enrich their academic experience, enhance their professional qualities, stimulate innovative thinking, and strengthen their innovation capabilities.

The two-week program will feature various forms of teaching, including lectures, project-based learning, and practical sessions. These elements are designed to introduce students with a strong quantitative background (such as those in energy and power, theoretical physics, computer science, and engineering) to emerging fields in smart energy and advanced power. The summer school envisions a collaborative learning environment where teachers and students engage in in-depth discussions on cutting-edge topics in energy and power, exploring advanced mathematical methods, modeling techniques, and practical approaches.

Attendance Requirements

Participants should be currently enrolled at the undergraduate or graduate level, with a background in energy science, power and mechanical engineering, mechanics, aerospace engineering, materials science, applied mathematics, or related disciplines. All participants must have a good command of English. Lectures will be given in English.

Lectures and Talks (Tentative)

The summer school offers four lectures and four seminar talks. Lecturers and speakers are invited from top institutions around the world, including the United States, France, Germany, Australia, Spain, and China. Notable institutions represented include California Institute of Technology, Institut National des Sciences Appliquées de Lyon, University of Western Australia, Universidad de Sevilla, and Harbin Institute of Technology.

Lecturer/ Speaker	Institution	Topic (preliminary)	Units (50 mins/unit)
Prof. Nicolas Riviere	Universidad de Sevilla, Seville	Principles and Applied Technologies of Solar Photovoltaic Power Generation Systems	8 (lecture)
Prof. Iranzo Alfredo	Institut National des Sciences Appliquées de Lyon, France		8 (lecture)
Prof. Yan Kleissl	California Institute of Technology, United States	Fluid Dynamics Computation and Flow Control	8 (lecture)
Prof. Tongming Zhou	University of Western Australia, Australia		8 (lecture)
Prof. Oskar Haidn	Deutsches Zentrum für Luft- und Raumfahrt, Germany	Key Technologies in the Research Field of Liquid Rocket Engines	2 (talk)
Prof. Nicolas Gascoin	Institut National des Sciences Appliquées, France	Challenges of propulsion for a scramjet engine	2 (talk)
Prof. Daren Yu	Harbin Institute of Technology, China	Overview of the Development of Electric Propulsion in Space	2 (talk)
Prof. Jianmin Gao	Harbin Institute of Technology, China	Overview of Advances in Energy Storage Technologies	2 (talk)

Group Research Project

Participants will be divided into 6 or more teams, with 5-7 members in each team, to work on the Rotor UAV Practical Project. Under the guidance of instructors, either online or offline, each group will complete practical exercises focused on the "Supercapacitor/Battery Practical Project".

Program Dates and Times

	Week 1 (7.20—7.25)						Week 2 (7.27—8.1)					
	Mon	Tue	Wed	Thur	Fri	Sat	Mon	Tue	Wed	Thur	Fri	Sat
M	Lecture		Lecture		Lecture	Tour	Lecture		Seminar	Group Research	Defense	Poster
A	Seminar		Seminar		Seminar		Group Research		Group Research	Group Research		

(Registration: July 19th, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Electrical Intelligence: Driving the Future

July 20–Aug. 1, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: dingyi90@163.com

General Information

The "Electrical Intelligence: Driving the Future" International Summer School at Harbin Institute of Technology aims to provide a platform for undergraduates majoring in electrical engineering and related fields at home and abroad to explore cutting-edge developments and applications in the electrical engineering discipline. The program offers opportunities for students from around the world to exchange ideas and learn from each other, fostering an atmosphere of international professional study and exchange. The program highlights key areas such as smart manufacturing, smart energy, and smart cities, underscoring the societal relevance and global impact of electrical intelligence.

Attendance Requirements

The summer school is open to undergraduate and graduate students with backgrounds in electrical engineering, control science and engineering, or electronic information engineering. Proficiency in English is required.

Lectures and Talks（Tentative）

The summer school offers 3 lectures and 4 seminar talks. Lecturers and speakers are invited from top institutions in China and Europe.

Lecturer/ Speaker	Institution	Topic (preliminary)	Units (50 mins/unit)
Prof. José Marcos Alonso Alvarez	University of Oviedo, Spain	Introduction to Lighting Driver Technology	16 (lecture)
Prof. Alistair Duffy	De Montfort University, UK	Electromagnetic Compatibility	16 (lecture)
Prof. Denis Sidorov	Harbin Institute of Technology, China	Design of Power Supply in Special Equipment	16 (lecture)
Prof. Dianguo Xu	Harbin Institute of Technology, China	Emerging Technologies in Electrical Engineering	1 (talk)
Prof. Liyi Li	Harbin Institute of Technology, China	National Science Project	1 (talk)
Prof. Yi Sui	Harbin Institute of Technology, China	Permanent-Magnet Synchronous Machines with Complementary Utilization of Permanent Magnets	1 (talk)
Prof. Binbin Li	Harbin Institute of Technology, China	Modular Power Electronics: Advances and Challenges	1 (talk)

Group Research Project

Participants will be grouped into 6 teams or more, each with 7-10 members, to work on a project on structural principles and virtual disassembly of new energy vehicles. Each team will choose one focus area from a set of four thematic tracks.

Program Dates and Times

	Week 1 (July 20—25)						Week 2 (July 27—Aug. 1)					
	Mon	Tue	Wed	Thur	Fri	Sat	Mon	Tue	Wed	Thur	Fri	Sat
M	Opening Ceremony	Lecture			Lecture	Tour	Lecture		Seminar	Seminar	Defense	Closing Ceremony
A	Lecture		Seminar				Group Research		Lecture	Seminar		

(Registration: July 19, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Precise Measurement, Precise Future

Jul 20–30, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: hitwhyan@gmail.com

General Information

The Summer School offers an intensive program tailored for students and professionals seeking to explore the latest advancements in metrology and instrumentation. Participants will delve into key concepts, including precision sensing techniques, the design of measurement instruments, and the importance of accurate data in scientific research and industrial applications. The curriculum combines theoretical lectures with real-world case studies, focusing on topics such as optical measurement systems, sensor technologies, and calibration methods. Through this program, attendees will gain a deep understanding of the challenges and solutions involved in achieving high-precision measurements, equipping them with valuable skills for careers in engineering, research, and technology development. Additionally, the Summer School provides a unique platform for networking and collaboration with leading experts in the field.

Attendance Requirements

The program is open to undergraduate and graduate students, with backgrounds in engineering, instrumentation science, electrical engineering, mechanical engineering, physics, or related fields. While a strong interest in precision measurement, sensor technologies, and instrumentation is recommended, it is not mandatory. Proficiency in English is required.

Lectures and Talks (Tentative)

The summer school offers academic lectures, courses and practical programs. Lecturers and speakers are invited from top institutions in German, the U.K., and China, including Physikalisch-Technische Bundesanstalt (PTB), University of Bristol, and Harbin Institute of Technology.

Module	Content	Class Hours	Credit
Academic Lectures	Four academic lectures cover sensing, artificial intelligence technology and nanofabrication technology	2*4	—
Course teaching	International cutting-edge technologies in ultra-precision measurement and instrumentation	24	1.5
Practical programs	Design and practice of intelligent sensing systems	8	0.5

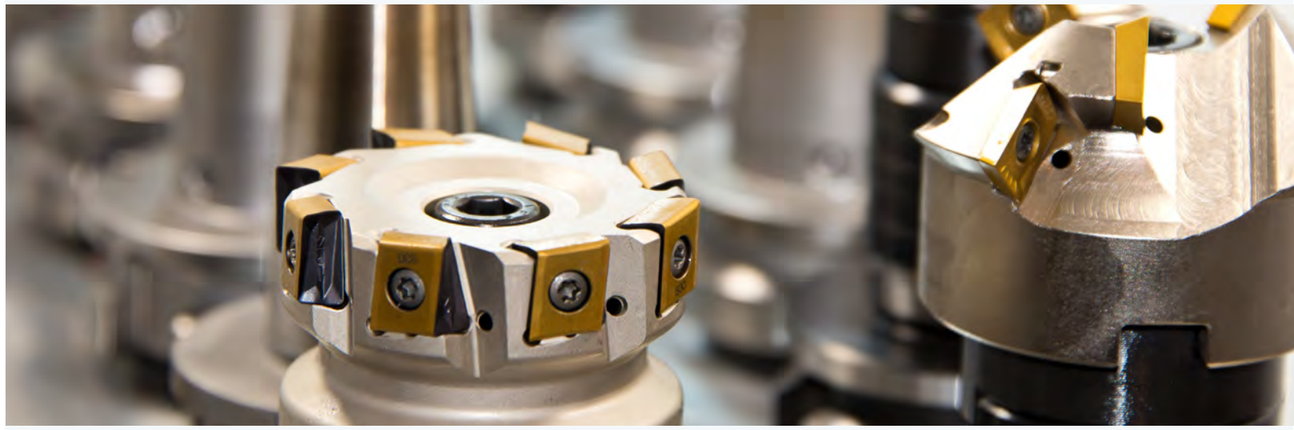
Group Research Project

Participants will be divided into several teams, each consisting of 3-5 members, to work on a research project addressing an assigned case study or technical problem. Each team will present their findings in the form of a speech or poster. Teams may choose one of the following research areas:
1.Application of precision measurement technology in future industries
2.Technical challenges and breakthroughs in nano-scale measurement
3.Design and application of new sensors and measuring equipment

Program Dates and Times

<table>
<tr><th></th><th colspan="7">Week 1 (July 20—26)</th><th colspan="4">Week 2 (July 27—30)</th></tr>
<tr><th></th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thur</th><th>Fri</th><th>Sat</th><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thur</th></tr>
<tr><td>M</td><td colspan="2">Seminar</td><td colspan="2">Lecture</td><td rowspan="2">Group Research</td><td rowspan="2">Tour</td><td rowspan="2">Tour</td><td colspan="2">Lecture</td><td>Seminar</td><td>Seminar</td></tr>
<tr><td>A</td><td colspan="2">Lecture</td><td colspan="2">Seminar</td><td colspan="2">Seminar
Group Research</td><td rowspan="2">Group Research</td><td rowspan="2">Group Research</td></tr>
</table>

(Registration: July 19, 2026)



Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

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Physics and the Future of Technology

July 20–31, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: physics_summer_sch@163.com

General Information

The International Summer School on “Physics and the Future of Technology” at Harbin Institute of Technology is designed to provide undergraduate students majoring in physics and related fields at home and abroad with a platform to understand the latest developments and applications of physics. It also aims to foster opportunities for academic exchange and learning among students from diverse backgrounds, create an environment that supports the development of academic English proficiency, and encourage students in related fields to further their understanding of the discipline, thereby inspiring greater research interest among young scholars.

Attendance Requirements

Participants at the undergraduate or graduate level, with a background in general physics are welcome to participate. Proficiency in English is required for all participants.

Lectures and Talks (Tentative)

The summer school comprises 2 lectures and 4 seminar talks delivered by distinguished speakers invited from top institutions in Russia, Singapore and China.

Lecturer/Speaker	Institution	Topic	Units(50mins/unit)
Prof. Rybin Mikhai	Ioffe Physical–Technical Institute of the Russian Academy of Sciences	L1: Advanced Photonics	16 (lecture)
Prof. Shelyapina Marina	Saint Petersburg State University	L2: Quantum Physics	16 (lecture)
Prof. Ahmedov Bobomurat	New Uzbekistan University	T1: Exploring the Frontiers of the Universe	4 (talk)
Prof. Chu Xiangqiang	City University of Hong Kong	T2: The Peculiar Neutron	4 (talk)
Prof. Cao Liangcai	Tsinghua University	T3: Intelligent holographic photonics	4 (talk)
Prof. Liu Guigeng	Westlake University	T4: Topological Photonics	4 (talk)

Group Research Project

In accordance with the International Young Physicists Tournament (IYPT), eight research topics have been chosen for their experimental feasibility, interest, and rich physical content. Students may sign up voluntarily, forming groups of 3-4 individuals, each supported by a guidance team comprising professors from the schools of physics.

Program Dates and Times

	Week 1 (July 20-26)							Week 2 (July 27-31)				
	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Mon	Tue	Wed	Thur	Fri
M	L1	L1	L1	L1	T3	VL	VL	L2	L2	L2	L2	T4
	L1	L1	L1	L1	T3	VL	VL	L2	L2	L2	L2	T4
A	T1	T1	T2	T2								

(Registration: July 19, 2026. “VL” is the abbreviation for “visiting learning”)

Global Summer School

Digital Economy and Intelligent Decision

July 11–19, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: andyzhang@hit.edu.cn

General Information

The 2026 International Summer School of Digital Economy and Intelligent Decision will be hosted by the School of Management, Harbin Institute of Technology (HIT SoM), among the first institutions in China to establish a school of management. Centering on this core theme, the program invites world-renowned senior scholars and industry experts from the fields of Information Systems, Big Data Analytics, FinTech, and related disciplines to serve as lecturers. The curriculum is designed not only to cover fundamental theories in the digital economy and intelligent decision-making, but also to explore cutting-edge trends and future directions in the field. Beyond knowledge dissemination and skill enhancement, the mission of this program is to establish a high-level platform for undergraduate students and faculty to exchange ideas, thereby fostering the robust development of emerging digital disciplines.

Attendance Requirements

This program welcomes undergraduate students worldwide, including those participating in HIT's university and school-level cooperative programs, such as QTEM and the Lyon Business School Joint Education Program.

Lectures and Talks (Tentative)

The International Summer School offers 24 class hours of courses, four academic lectures, and four seminar talks. Lecturers are invited from top institutions across Asia, Europe, and Australia.

Module	Content	Class Hours
Course Teaching	Core Methodologies & Technologies: Systematic instruction on Operational Data Analytics (ODA), Neural Networks in Finance, Hierarchical Attention Entropy in ANN, and Blockchain fundamentals.	24
Academic Lectures	Frontier Applications in Digital Economy: Topics cover Digital Platform Ecosystems, Online Health Communities (OHC), Budget Disclosure in Crowdfunding, and the Influencer Economy.	3*4
Seminar Talks	Future Trends & AI Impact: Interactive discussions on the societal implications of AI, specifically focusing on “AI and Jobs” and “The Influence of AI on Decision-Making”.	12
	Total Credit Hours	48

Group Research Project

Participants will be grouped into 6 or more teams, each with 7-10 members, to work on a project focused on data-driven business innovation and intelligent decision-making in the digital economy. Each group may select one from four areas: smart healthcare and online communities, FinTech, blockchain and digital currency, AI-human collaboration and the future of work, and digital platform ecosystems and the influencer economy. Instructors are available online or offline.

Program Dates and Times

	7.11 Thur.	7.12 Fri.	7.13 Sat.	7.14 Sun.	7.15 Mon.	7.16 Tue.	7.17 Wed.	7.18 Thur.	7.19 Fri.
AM	Course	Course	Course	Course	Lecture	Lecture	Lecture	Lecture	Tour
PM	Course	Course	Course	Course	Seminar	Seminar	Seminar	Seminar	

(Registration: July 10, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Precise Climate Leadership and Digital Finance

Jul 20–29, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

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General Information

The Climate Leadership and Digital Finance program, jointly developed by the Business School, Harbin Institute of Technology, and the University of Edinburgh Business School, explores the convergence of global climate governance and digital financial innovation. Focusing on two core themes—**climate leadership and digital finance**—the program offers an interdisciplinary curriculum that integrates climate science, sustainability strategies, ESG investment, green financial products, and cutting-edge digital tools such as **AI-driven climate risk modeling, blockchain-based carbon traceability, and digital carbon markets.** Through lectures, seminars, enterprise visits, and team-based project challenges, participants gain systematic analytical frameworks, hands-on practical experience, and global perspectives essential for navigating the transition toward a low-carbon and digitally empowered economy.

The Business School at HIT builds on HIT's strong engineering background and its distinctive **"technology + business"** positioning, providing a unique ecosystem that connects scientific innovation with business application. The University of Edinburgh Business School, a triple-accredited institution (AACSB, EQUIS, AMBA), ranks 22nd globally in Business & Management and 36th in Accounting & Finance in QS 2025, with its finance programs consistently recognized in the Financial Times (FT) global rankings. The partnership between the two schools ensures world-class faculty, interdisciplinary depth, and international learning resources for all participants.

Attendance Requirements

Program size: Approximately 50–60 participants will be admitted.
Target participants: The program is designed for undergraduate students.
Proficiency in English is required, as all instruction and materials will be in English.

Lectures and Talks（Tentative）

The curriculum is delivered by faculty from the Business School, Harbin Institute of Technology and the University of Edinburgh Business School. The curriculum integrates frontier research in climate finance, sustainable development, financial technology, and digital innovation with applied enterprise cases and project-based learning.

Topic (preliminary)	Units (50 mins/unit)
Global Sustainable Financial Systems: Policies, Markets and Technological Innovation	8 (Lecture)
China's "Dual-Carbon" Strategy and Industrial Opportunities	4 (Lecture)
AI and Machine Learning in Climate Risk Pricing and Green Credit	8 (Lecture)
ESG Investment: Theory, Practice and M&A Climate Factors	4 (Lecture)
Digital Economy and Platform Empowerment: Green Consumption & Inclusive Finance	2 (Lecture)
ESG Narratives and Data Asset Valuation	2 (Lecture)
Climate-related Risk Drivers and Transmission Channels to the Financial System	4 (Lecture)
Innovation in Green Financial Products and Digital Risk Management	2 (Talk)
Enterprise Visit	8 (Practice)
Thematic Workshop	8 (Practice)
Final Project Presentation	6 (Practice)

Group Research Project

Participants will be assigned to international mixed teams of 5–6 members from the beginning of the program. Each team will work collaboratively on designing a "climate-digital finance" solution tailored to a specific industry (e.g., agriculture, data centers). The project will culminate in a final presentation on Day 9 of the program.

Program Dates and Times

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Activities	Opening Ceremony & Orientation	Climate Leadership Module	Climate Leadership Module	Digital Finance Module	Digital Finance Module	Digital Finance Module	Digital Finance Module	Digital Finance Module	Enterprise Visit / Team Project Presentation	Closing Ceremony

(Registration: July 19, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Training Camp: Talents for International Organizations

July 20–31, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

Wang Yang: wangsusanhit@126.com
Xu Rui:549560770@qq.com

General Information

The Talent Training Camp for International Organizations, hosted by the Faculty of Humanities and Social Sciences at HIT, adopts a module-based approach comprising “Courses + Lectures + Practices (practical training)”. The camp focuses on international relations and global development, exploring contemporary interrelationships among nations with professional guidance in international relations and organizations. Through theoretical instruction and hands-on practices, students will enhance their understanding of the functioning of international organizations, as well as the fundamental principles of international relations, politics, and economics. The program aims to develop students’ language proficiency, cross-cultural communication skills, global governance awareness, and critical thinking abilities.

Attendance Requirements

Students from China or overseas, regardless of their majors, are welcome to participate. Chinese students with English proficiency equivalent to CET-6 or above are preferred.

Lectures and Talks (Tentative)

The training camp features sessions led by former UN officials, current officials from international organizations, as well as scholars, professors, and researchers from renowned Chinese universities. These sessions include short courses, lectures, and training activities covering topics related to intercultural communication, international relations and organizations.

Lecturer/ Speaker	Institution	Topic	Units (56 mins/unit)
Fabrizio Hochschild (Chile)	Institute of International Peace and Security	Leadership and Organizational Change	16 (course)
Hans Willmann (Germany)	World Health Organization	“Working for an International Organization”（of the UN Common system)	16 (course)
Li Donglin (China)	International Labour Organization	International Negotiation Skills and Some Typical Case Studies	4 (lecture)
Yang Jin (China)	Permanent Representative of China to UNESCO	Promote Education for International Understanding and Improve Learners' Intercultural Capabilities	4 (lecture)
Xue Yuxue (China)	United Nations Development Programme (UNDP)	Gain an Understanding of International Organizations	4 (lecture)
Lv Xin (China)	China Arms Control and Disarmament Association (CACDA)	An Analysis of the Outer Space Security Situation and the Current Status of International Governance	4 (lecture)
Hans Willmann (Germany)	World Health Organization	Activity 1: Simulated Recruitment for International Organizations	4 (Practical Training)
Song Langrun (China)	(Interned at) Natural Sciences Sector, UNESCO Regional Office for Eastern Africa	Activity 2: Experience Sharing on Internship at International Organizations — “How to Be an International Civil Servant”	4 (Practical Training)
Zhang Naiqian (China)	(Interned at) the Strategic Planning Department at ITU headquarters in Geneva		
Su Chang (China)	(Interned at) UN Headquarters in New York		
Gao Xuan (China)	(Served at) UN Global Service Centre in Italy		

Group Research Project

Participants will be assigned to international mixed teams of 5–6 members from the beginning of the program. Each team will work collaboratively on designing a “climate-digital finance” solution tailored to a specific industry (e.g., agriculture, data centers). The project will culminate in a final presentation on Day 9 of the program.

Program Dates and Times

	(July19)	Week 1 (July 20-24)					Week 2 (July 27-31)				
	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Mon.	Tue.	Wed.	Thu.	Fri.
M	Register	Course A	Opening Ceremony	Course A	Course A	Course A	Course B	Course B	Course B	Course B	Departure
		Course A		Course A	Course A	Course A	Course B	Course B	Course B	Course B	
A		Lecture	Lecture	Lecture	Lecture	Activity 1	Lecture	Activity 2	Activity 3	Lecture	

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Intelligent Civil Engineering and Intelligent Construction

July 15–24, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: gsr33resume@163.com

General Information

The development of information technology and artificial intelligence (AI) has endowed civil engineering with a new connotation. Traditional civil engineering is undergoing an intelligent transformation driven by big data and AI. Implementing big data and AI technology to support the transformation and upgrading of infrastructure has become a significant national demand. In-depth research on critical scientific issues related to intelligent civil engineering can contribute to solving problems of human survival and development.

Therefore, focusing on the original theories and key technologies of civil engineering, the following topics will be covered in this summer school:

(1) Urban and Engineering Structure Resilience Theory

(2) Implementation of Computer Vision and Deep Learning in Civil Engineering

(3) Application of Intelligent Materials in Civil Engineering

(4) Polar and Cold-Region Ice Disaster Prevention and Control Theory; Frozen Soil Disaster Prevention and Control Theory

Attendance Requirements

We plan to recruit outstanding undergraduates from overseas universities:

- Majors: Civil engineering or related science and engineering fields
- Year: Sophomores or above

Lectures and Talks (Tentative)

The summer school offers 1 lecture and 3 seminar talks. Lecturers and speakers are invited from top institutions, including Aalborg University, Far Eastern Federal University, Leibniz University Hannover, University of North Texas, and Harbin Institute of Technology.

Lecturer/Speaker	Institution	Topic (preliminary)	Units (50 mins/unit)
Prof. Michael Havbro Faber	Aalborg University, Denmark	Risk and Safety	2 (talk)
Prof. Michael Beer	Leibniz University Hannover, Germany	AI in Hazard Mitigation and Transportation Engineering	8 (lecture)
Prof. Hui Li	Harbin Institute of Technology, China	Chinese Intelligent Civil Engineering and Intelligent Construction Research Frontier (Part 1)	2 (talk)
Prof. Wenli Chen	Harbin Institute of Technology, China	Chinese Intelligent Civil Engineering and Intelligent Construction Research Frontier (Part 2)	2 (talk)

Group Research Project

Participants will be divided into 6 teams or more, each consisting of 5-10 members. Then we will be organizing a competition where each team is required to complete a model (possibly using wooden strips and glue, based on the challenge provided), after which the conference will conduct loading tests and determine the final rankings.

Program Dates and Times

Time	A.M.	P.M.	Night
DAY 1	Registration	Opening Ceremony + Lesson	Social gathering
DAY 2	Lecture	Lesson	Tour
DAY 3	Lesson	Tour of HIT University History Exhibition	Free Time
DAY 4	Lecture	College Laboratory Visit	Free Time
DAY 5	Lecture	Talk	Free Time
DAY 6	Lecture	Lecture	Free Time
DAY 7	Hands-on Lab Session		Free Time
DAY 8	Hands-on Lab Session		Free Time
DAY 9	Hands-on Lab Session		Free Time
DAY 10	Competition	Closing Ceremony	Free Time

(Registration: July 15, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Arctic Environment and Ecosystem

July 13–26, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: IAS_HIT@163.com

General Information

The Arctic is one of the most stunning but fragile ecosystems on Earth, once characterized by its vast expanses of pristine ice and snow. The relentless march of climate change is transforming these landscapes at an unprecedented pace. Rising temperatures, melting glaciers, and shifting weather patterns are triggering a cascade of ecological disruptions with far-reaching consequences. Once in the environment, persistent organic pollutants (POPs) and Chemicals of Emerging Arctic Concern (CEACs) disperse into air, water, soil, and sediments in the Arctic, and can be taken up by Arctic biota. Many of the processes that determine the environmental fate of POPs and CEACs and their potential for uptake and bioaccumulation in food webs can be influenced by climate change. Participants will deepen their understanding of carbon emissions and the carbon cycle in cold regions in the context of climate change. It is an excellent opportunity for participants to get access to frontiers in Arctic Environment and Ecosystem, to work together tackling challenges, and to make academic friends worldwide.

Attendance Requirements

This Summer School invites undergraduate students and graduate students from universities worldwide who are passionate about the Arctic and wish to gain scientific knowledge of its environment. This program is open to undergraduate students and graduate students from all academic backgrounds. Applicants should be motivated to foster mutal understanding and friendship among peers from different countries. Proficiency in English (both oral and written) is required for academic participation.

Lectures and Talks (Tentative)

The summer school offers one intensive lecture and seven seminar talks. Lecturers and speakers are invited from top institutions in Russia, Norway, Canada, and China, including North-Eastern Federal University, Norwegian University of Life Sciences, Harbin Institute of Technology, Chinese Research Academy of Environmental Sciences, China Institute for Innovation & Development Strategy, and Research Center for Eco-Environmental Sciences.

Topic (preliminary)	Units (50 mins/unit)
Pollution of the Arctic Ecological Environment	24 (lecture)
Frost Resistant Elastomeric Materials for Northern Climate	2 (talk)
Permafrost as an Environmental Variable in Earth Sciences under Changing Climate	2 (talk)
Permafrost Landscape Structure	2 (talk)
Introduction to Biodiversity in China	1 (talk)
China in the Arctic: Identity, Interests, Challenges, and Strategy	1 (talk)
Persistent Organic Pollutants in Polar Regions	1 (talk)
Methods for Detecting Pollutants in the Atmosphere	1 (talk)

Group Research Project

Participants will be grouped into 8 teams or more, each consisting of 6-8 members, to collaborate on projects related to carbon emissions and carbon cycle under the background of climate change in cold regions, Arctic air and water pollution, and ecological dynamics. Each group is expected to conduct discussions and deliver presentations as a team.

Program Dates and Times

<table>
<tr><th></th><th colspan="6">Week 1 (July 13—19)</th><th colspan="6">Week 2 (July 20—26)</th></tr>
<tr><th></th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thur</th><th>Fri</th><th>Sat</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thur</th><th>Fri</th><th>Sat</th></tr>
<tr><td>M</td><td rowspan="2">Opening Ceremony & International Orientation</td><td colspan="4">Lecture</td><td rowspan="2">Tour</td><td colspan="2">Lecture</td><td>Talk</td><td rowspan="2">Internship at Monitoring Station</td><td>Group Research</td><td rowspan="2">Tour</td></tr>
<tr><td>A</td><td colspan="4">Talk</td><td colspan="3">Group Research & Group Report</td><td>Group Report</td></tr>
<tr><td colspan="11"></td><td>Closing Ceremony</td></tr>
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(Registration: July 12, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Imprint Harbin · City Trace-Architectural Design Camp

July 13–23, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: liuying01@hit.edu.cn

General Information

Since its inception in 2016, the International Summer School “Imprint Harbin · City Trace – Architectural Design Camp” has been well received by universities in China and abroad. It has evolved into a dynamic platform fostering cooperation and coordination across various specialties and fields, offering students from diverse academic backgrounds a unique opportunity to gain professional insight and cognitive understanding of Harbin, a city steeped in history and culture in northern China.

In the summer of 2026, the 11th International Summer School at HIT welcomes your participation in the picturesque and vibrant city of Harbin!

Part I. The Theme of the Architectural Design Camp: Imprint Harbin · City Trace

Centered around architectural design workshops, the international summer school will feature renowned professors from overseas institutions such as University College London and the Pennsylvania State University, together with accomplished domestic instructors as workshop tutors. Focused on the historic districts of Harbin, this workshop aims to explore the architectural splendor of the city’s northern landscape while integrating innovative design practices facilitated by emerging technologies. Moreover, students will benefit from a diverse array of perspectives and expertise shared by lecturers hailing from international universities, enriching their professional acumen and broadening their global outlook.

Part II. Course Content

The curriculum of this summer school comprises three main components: lectures, design workshops, and research.

The lecture series will feature presentations by distinguished experts and scholars, including Professor Kang Jian from University College London, Chen Shouheng, expert from the MIT Computation Group and Chief Architect of SHDT Shouheng Design, and Sun Wei, co-founder of Shaper3d and head of the China Technical Support and Promotion Center.

The design workshop part will consist of 4 co-designs sessions tailored to accommodate varying levels of expertise and thematic interests, each led by a faculty group known for their distinctive approach.

The research component will delve into the city’s development and associated factors through the lens of architecture, informed by a comprehensive exploration of Harbin’s history, culture, architecture, and daily life.

Part III. Specific Arrangements

The summer school is scheduled to take place from July 13th to July 23rd, 2026. Please refer to the following table for details.

Courses	Contents	Teachers	Class Hours	Credits
Lecture	Ramble on world architecture	■ Professor Kang Jian from University College London ■ Chen Shouheng, an expert from the MIT Computation Group and the Chief Architect of SHDT Shou Heng Building ■ Professor Wenshao Zhang from the University of Lincoln ■ Professor Sun Cheng, a Changjiang Scholar	8	0.5
Design	“Heritage reproduction” “Digital innovation” “Environment simulation” “Open-source blocks”	Students are grouped for design purposes, with faculty advisors listed in these four directions.	24	1.5
Research	City Discovery	Expert in Urban Design and Historic Building Conservation	8	0.5

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

AI Empowers Smart Transportation

July 20–26, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: xiaowei_hu@hit.edu.cn

General Information

Transportation Science and Engineering is a multidisciplinary field bridging foundational science and advanced technologies. The International Summer School in Transportation Engineering offers diverse lectures and seminars covering cutting-edge research, design, and applications in the domain. Participants will gain expertise in areas such as intelligent infrastructure management, sustainable transportation systems, advanced materials for transportation structures, and disaster prevention technologies for cold regions. Through theoretical learning and collaborative research projects, this program provides a platform to explore the frontiers of transportation science, solve complex challenges, and build an international network of academic and professional peers.

Attendance Requirements

Participants at the undergraduate level, with backgrounds in transportation engineering, civil engineering, mechanical engineering, materials science, geotechnical engineering, or related fields, are encouraged to apply. A good command of English is required for all participants.

Lectures and Talks (Tentative)

The summer school offers four lectures. Lecturers and speakers are invited from top institutions in the world, including Lehigh University, Waseda University, Lund University, Lancaster University, Technical University Dresden, and Polytechnic University of Turin.

Lecturer/ Speaker	Institution	Topic (preliminary)	Units (50 mins/unit)
Prof. Dan M. Frangopol	Lehigh University, United States	Reliability of Engineering Structures	4 (lecture)
Prof. Mitsuyoshi Akiyama	Waseda University, Japan	Structural Safety	4 (lecture)
Prof. Aliaksei Laurenshyn	Lund University, Sweden	Safe System Approach	4 (lecture)
Prof. Alberto CARPINTERI	Polytechnic University of Turin, Italy	Introduction to Fracture Mechanics	4 (lecture)

Group Research Project

Participants will be organized into teams of 6-10 members to collaboratively work on research projects addressing key challenges in transportation science and engineering. Each team will select a topic from four focus areas: intelligent design and performance optimization of transportation infrastructure, structural dynamics and disaster resilience, advanced materials for infrastructure durability, and health monitoring of transportation structures. Expert instructors will provide guidance, ensuring a comprehensive and interactive research experience for all participants.

Program Dates and Times

	Week 1 (July 20—26)						
	Mon	Tue	Wed	Thur	Fri	Sat	Sun
M	Seminar		Lecture		Interactive Discussion	Group Research	Tour
A	Lecture		Seminar				

(Registration: July 19, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Intelligence Leading the Frontier, Computing Shaping the Future

July 20–31, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: jiakunliu@hit.edu.cn

General Information

In an era defined by rapid technological evolution, artificial intelligence (AI) stands at the forefront of innovation, driving transformative changes across industries and disciplines. The "Intelligence Leading the Frontier,Computing Shaping the Future" Global Summer School offers an immersive and enriching educational experience for those eager to explore the vast possibilities within AI.

This interdisciplinary program explores the latest advancements and applications of AI across various fields. Through a combination of lectures, hands-on workshops, and dynamic discussions led by renowned experts and researchers, participants will gain a comprehensive understanding of AI theories, methodologies, and their real-world implementations.

Additionally, the summer school serves as a unique opportunity for global collaboration, bringing together students, academics, and professionals from around the world to exchange ideas, share insights, and build meaningful connections. This transformative experience will provide participants with the knowledge and inspiration to navigate the future of AI. Join us on this exciting journey to discover the frontiers of artificial intelligence and unlock its immense potential to shape the world of tomorrow.

Attendance Requirements

We invite undergraduate and graduate students with backgrounds in Computer Science, Artificial Intelligence, Data Science, Information Technology, Cognitive Science, Mathematics, and other fields focused on AI applications to apply for an immersive learning experience at the forefront of AI research and innovation. Proficiency in English is required for all participants.

Lectures and Talks（Tentative）

The summer school offers three comprehensive lectures, each spanning 16 hours, with a primary focus on computer science and artificial intelligence. In addition, there will be four cutting-edge seminar talks addressing the latest trends and advancements in contemporary research within these fields. The instructors and guest speakers are esteemed professionals from prestigious institutions worldwide, including Edith Cowan University, the Hong Kong Polytechnic University, University of Rochester, University of Macau, Harbin Institute of Technology, and more.

Group Research Project

Participants will be divided into teams, with each team potentially consisting of 4-7 members, and will work together on a project focused on artificial intelligence. Each group can choose between two areas: Medical Imaging or Computer Vision.

Program Dates and Times（Tentative）

	Week 1 (July 20-26)						Week 2 (July 27-31)				
	Mon	Tue	Wen	Thu	Fri	Sat	Mon	Tue	Wen	Thu	Fri
M	Lecture		Seminar		Group Research	Tour	Lecture	Seminar	Lecture		Defense
A	Seminar		Lecture				Group Research	Lecture	Group Research		Closing Ceremony

(Registration Date: July 19, 2026)

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Chasing Future Chemistry Leading the Future, Intelligence Creating the Applications

July 13–17, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: linkaifeng@hit.edu.cn

General Information

The theme of this international summer school is "Chemistry Leading the Future, Intelligence Creating the Applications ". In the context of current technological development, knowledge related to applied chemistry has empowered various fields such as aerospace, energy, environment, and life health, providing strong support for scientific and technological innovation in multiple domains and playing a crucial role in the progress and sustainable development of society. The content of this summer school focuses on the cutting-edge topics in each relevant field. Through a series of courses and thematic lectures by international and domestic leading scholars, students can understand the knowledge foundation of applied chemistry in the technological progress of related fields and how the discipline keeps pace with the times and plays an important role in scientific research efforts. Through this program, students will recognize that foundational knowledge is essential for technological advancement and gain a deeper understanding of interdisciplinary integrations such as "Applied Chemistry + Aerospace", "Applied Chemistry + Energy", and "Applied Chemistry + Environment". It includes both theoretical organization of basic research and the latest research trends and frontier achievements, broadening the research thinking and academic vision of graduate students, and enhancing their research capabilities and innovation consciousness.

Attendance Requirements

The program is open to undergraduate and graduate students with a background in aerospace energy, aerospace materials, energy materials, or related fields. Proficiency in English is required.

Lectures and Talks (Tentative)

The summer school offers six lectures and four courses. Lecturers and speakers are invited from top institutions, including University of Texas at San Antonio, University of North Carolina at Chapel Hill, Northwestern Polytechnical University, Harbin Institute of Technology, Wuhan University of Technology, and Jilin University.

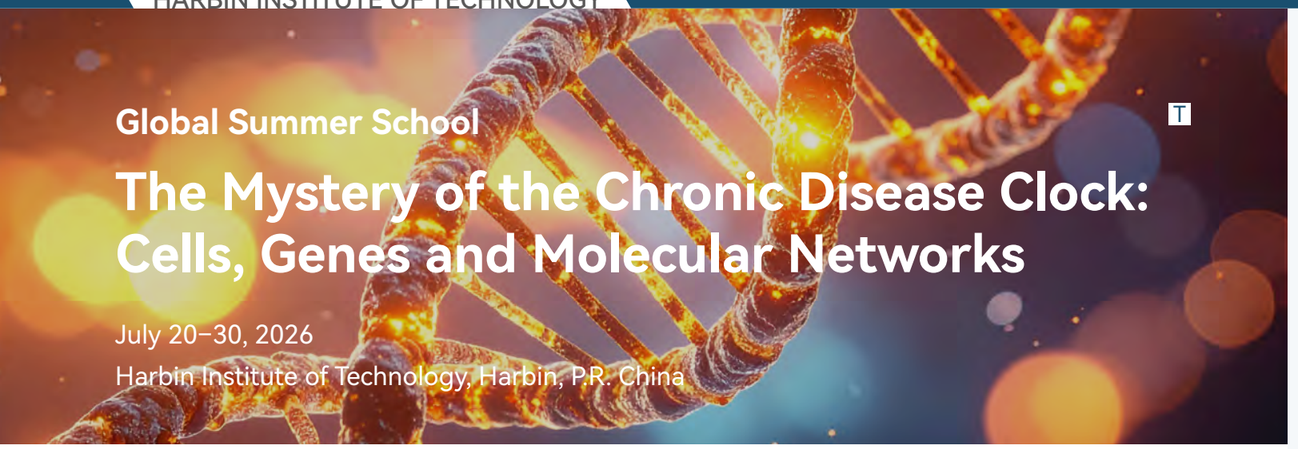
Topic (preliminary)	Units (50 mins/unit)
Crystal Structures and Their Magnetic Properties	2 (lecture)
Optoelectronic Materials and Supramolecular Chemistry	4 (course)
Light Induced Electron and Energy Transfer Processes	4 (course)
Photogenerated Charges in Photocatalytic System	2 (course)
3D Micro-Nano Processing Method	2 (course)
Design and Development of Catalytic Materials	2 (lecture)
Stabilization of Micro-Nano Multifunctional Materials	2 (lecture)
Dynamics of Thermal Decomposition and Catalytic Combustion Mechanism of Propellants	2 (lecture)
Creation of Molecules of Novel Energetic Materials	2 (lecture)
Biomass Conversion and Selective Catalytic Oxidation	2 (lecture)

Students are required to attend all the courses and lectures. They may choose to participate in one of the innovation experiments.

Program Dates and Times

Date	M (8:00-11:30)	A (2:00-5:30)
7.12 Sun	Registration	
7.13 Mon	Opening Ceremony	Courses 1 & 2
7.14 Tue	Courses 1 & 2	Innovative Experiments 1 & 2
7.15 Wed	Lectures 1 & 2	Innovative Experiments 1 & 2
7.16 Thur	Lectures 3 & 4	Lectures 5 & 6
7.17 Fri	Courses 3 & 4	Closing Ceremony

Please note that the program schedule is subject to change based on actual circumstances.



Global Summer School

The Mystery of the Chronic Disease Clock: Cells, Genes and Molecular Networks

July 20–30, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

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General Information

Life Sciences, the most disruptive cutting-edge discipline of the 21st century, focuses on the mechanisms of life and integrates medicine, informatics, engineering and big data. It directly drives human health, economic growth and social development, and has emerged as the most globally focused fundamental natural science. At the critical juncture where the "Century of Life Sciences" converges with the "wave of bio-economy", chronic diseases have now surpassed infectious diseases as the leading cause of death globally. The Faculty of Life Sciences and Medicine closely follows the era's proposition of "putting people and lives first", and is dedicated to launching the International Summer School themed The Mystery of Chronic Disease Clock: Cells, Genes and Molecular Networks.

With chronobiology as the key, this program explores the molecular mechanisms underlying the occurrence, progression, and potential reversal of chronic diseases such as diabetes, obesity and cardiovascular diseases along the circadian rhythm axis. Through a progressive five-stage curriculum covering "Theory-Omics-Editing-Clinic Translation-Industry Innovation", it guides participants to dissect the molecular gears of the "chronic disease clock" and reshape cellular and genetic networks, contributing novel targets, strategies and talents to global chronic disease prevention and control.

We have invited top scholars from home and abroad to jointly design high-quality courses, roundtable discussions and immersive experimental practices, which not only incorporate local cultural elements but also embrace a global perspective. Experience-based outreach training is adopted to stimulate innovative thinking, and peer-assisted learning is promoted to facilitate holistic human development. We foster a robust academic atmosphere through knowledge immersion and interdisciplinary integration, and embrace international resources in an open and diversified manner. The summer school aims to consolidate participants' biological foundation for life and health, build a high-level exchange platform for teachers and students at home and abroad, and inspire young scholars to grow into globally competitive leaders in life sciences.

Attendance Requirements

The program is open to undergraduate students with a strong interest in life sciences. Applicants must demonstrate English proficiency sufficient for academic discussion, writing, and oral presentation.
Courses and Lectures (Tentative)

Content	Detailed information	Credit	Class Hour
International Courses	Molecular Regulatory Network of Chronic Diseases	1.5	24
Academic Frontier Lectures	Research Progress in Neurodegenerative Diseases	-	2
	Advances in Diabetes Research	-	2
	Advances in Cancer Treatment	-	2
	Inferring Super-Resolution Tissue Architecture by Integrating Spatial Transcriptomics with Histology	-	2

Research Projects

Content	Detailed information	Credit	Class Hour
Offline Practice Projects (Select one)	Immunofluorescence labeling of cellular structure	0.5	12
	Analysis of Protein Structure by Cryo-Electron Microscopy (Cryo-EM) and Nuclear Magnetic Resonance	0.5	12
	Screening and analysis of differentially expressed genes in tumors based on public databases	0.5	12
Discussion and Interaction	1. Faculty Q&A Session 2. Career & Future Planning Forum 3. Informal Networking Gathering	-	
Visiting and Studying	1. Tour of the School of Life Sciences and Life Science Research Center, featuring cutting-edge research in molecular biology, genomics, and chronic disease mechanisms 2. Visit to HIT's History Museum and Aerospace Museum	-	

Program Dates and Times

July 20–30, 2026
Registration: July 19, 2026

Please note that the program schedule is subject to change based on actual circumstances.

Global Summer School

Space Environment Ground Simulation Technology&Applications

July 11–16, 2026

Harbin Institute of Technology, Harbin, P.R. China

Contact Information

For further inquiries, please contact: sesri@hit.edu.cn; aohuamao@hit.edu.cn

General Information

The International Summer School on Space Environment Ground Simulation Technology & Applications is hosted by the Institute of Space Environment and Material Science (ISEMS) at Harbin Institute of Technology (HIT). Centered around the theme “Space Environment Ground Simulation Technology and Its Applications,” the program offers a unique opportunity to engage with one of the world’s most advanced research facilities — the Space Environment Simulation and Research Infrastructure (SESRI), also known as the “Ground-based Space Station.”

Participants will gain hands-on experience with cutting-edge simulation systems, including near-zero magnetic field environments, plasma stimulators, particle irradiation devices, and more. The curriculum integrates interdisciplinary knowledge from space physics, materials science, life science, and electronic engineering, combining theoretical lectures, technical workshops, and practical laboratory sessions. This summer school aims to cultivate innovative talents with global perspectives and cross-disciplinary capabilities in space science and technology.

Attendance Requirements

- Open to third-year undergraduate students from Chinese universities (expected to graduate in 2027) or international undergraduates of equivalent standing.
- Applicants should have an academic background in a relevant field (e.g., physics, materials science, aerospace engineering) or a demonstrated strong interest in space science and technology.
- English proficiency in listening, speaking, reading, and writing is required.

Lectures and Talks（Tentative）

Topic (preliminary)	Units (50 mins/unit)
Space Environment Ground Simulation Facility: From Concept to Reality	2 (talk)
Aerospace Control Systems in the Age of Intelligence	2 (lecture)
Development of Mixed Perovskite Solar Cells	2(lecture)
From Microscopic Plasmas to Macroscopic Space Systems	2 (lecture)
Simulation and Application of Space Ionizing Radiation Environment	2 (talk)
Astrobiology and Space Environment Ground Simulation	2 (talk)
Space Plasma Environment and Ground Simulation Technology	8 (lecture and practice)
Near-zero Magnetic Field Environment and Simulation Technology	8 (lecture and practice)

Program Highlights

- Laboratory tours and real-time experiment observation at SESRI.
- Group discussions, academic exchanges, and cultural activities.
- Welcome dinner, cultural night, and city tour in Harbin.
- Certificate of completion awarded to all participants.

Program Schedule

- Day 1: Registration, Opening Ceremony, Welcome Dinner
- Days 2–3: Lectures, Lab Visits, Group Projects
- Day 4–5: Outdoor Cultural Activity / City Tour
- Day 6: Final Presentation, Closing Ceremony