

Global Summer School

Intelligent Robot

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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.