#### INTERNATIONAL SUMMER SCHOOL

## **ELECTRICAL INTELLIGENCE, DRIVE FUTURE**

Jun 26th - Jul 9th, 2023

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

#### **GENERAL INFORMATION**

Harbin Institute of Technology "Electrical Intelligence, Drive Future" International Summer School aims to provide a platform for undergraduates majoring in electrical engineering and related majors at home and abroad to understand the most cutting-edge development and application of the electrical engineering discipline, offer opportunities for students at home and abroad to exchange and learn, and create an atmosphere of professional international study and exchange. The project highlights the characteristics of smart manufacturing, smart energy and smart city, demonstrating the social significance and international influence of "Electrical Intelligence, Drive Future".

## **ATTENDANCE REQUIREMENTS**

Undergraduate or graduate attendees with background in Electrical Engineering, Electrical Machines, Power Electronics and Power Drives, Power Systems and Automation, Electrotechnical Theory and New Technologies etc. are expected. All participants must have a good command of English. Some lectures will be given in Chinese with translation in English.

#### **LECTURES AND TALKS**

The summer school offers 1 lecture and 8 seminars. Lecturers and speakers are invited from top institutions of China and Europe, including University of Oviedo, Danish Technical University, University of Technology Sydney, University of L'Aquila, French Advanced Institute of Telecommunications and Mining, and Harbin Institute of Technology.

Lecturer/ Speaker	Institution	Topic (preliminary)	Units (50 mins/unit)
Prof. Jos é Marcos Alonso Alvarez	University of Oviedo, Spain	Introduction to Lighting Drive Technology	16 (lecture)

Prof. Ouyang Ziwei	Danish Technical University, Denmark	Analysis and Design of Planar Magnetic Components	2 (talk)
Prof. Yam Siwakoki	University of Technology Sydney, Australia	High Step-up Converters Based on Impedance Source Network	2 (talk)
Prof. Carlo Cecati	University of L'Aquila, Italy	A Multi-phase Multilevel Powertrain for Full Electric Aircraft	2 (talk)
Prof. Zonghua Zhang	French Advanced Institute of Telecommunications and Mining, France	Network-oriented Automatic Driving: Key Technologies and Challenges	2 (talk)
Prof. Dianguo Xu	Harbin Institute of Technology, China	Electrical Frontier Technology	1 (talk)
Prof. Liyi Li	Harbin Institute of Technology, China	National Science Project	1 (talk)
Prof. Yong Li	Harbin Institute of Technology, China	Typical applications of micro motors	1 (talk)
Prof. Zhizhong Guo	Harbin Institute of Technology, China	Renewable energy grid	1 (talk)

### **GROUP RESEARCH PROJECT**

The group research project includes student grouping, topic selection, teamwork and acceptance display. Students will be grouped freely. Combined with the content of the summer class, each group may select one of the 6-8 preset topics to conduct research, which will further strengthen students' understanding of lectures and talks, enhance students' awareness of the relevant technologies of electrical engineering discipline, guide students to cultivate their independent innovation ability, and deepen interaction and friendship.

#### **PROGRAM DATES AND TIMES**

	Week 1 (6.26—7.2)				Week 2 (7.3—7.9)					
	Mon	Tue	Wed	Thur	Fri	Mon	Tue	Wed	Thur	Fri
M	Opening Ceremony	Seminar			Team Work		Team Work		Closing Ceremony	
A		Seminar			Lecture					

# CONTACT INFORMATION

 $Please\ contact\ Sun\ Jiayue\ at\ sunjiayue@hit.edu.cn (E-mail).$