

International Summer School  
**The New Energy Materials and Devices**  
**Targeting Carbon Peaking and Carbon Neutrality**

Aug 1st-Aug 14th, 2022

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

**ABOUT PROGRAM**

The New Energy Materials and Devices Summer School International program will run from July 31 to August 14 in 2022 organized by School of Chemical Engineering and Chemistry. Based on the research characteristics and advantages of school of Chemical Engineering and Chemistry in sustainable energy technologies, such as "solar cells", "biomass utilization" and "electrochemical energy storage", this program focuses on the theme of "New energy materials and devices under the dual carbon background". We have invited several well-known experts from Singapore Academy of Engineering, Japanese Academy of Engineering, St Petersburg State University, Ukraine Academy of Sciences, Far Eastern Federal University, Harbin Institute of Technology and other research institutes to give series of courses and lectures around the cutting-edge technology of new energy materials and sustainable energy conversion devices.

The design of courses and lectures are based on the key research direction of new energy materials and devices, and combined with the cutting-edge research progress both at domestic and foreign. It will provide a platform for students to learn, exchange and practice, and expand their international vision. In addition, a science and technology innovation competition will be held and awarded with the new energy materials and devices technology centering on the "dual carbon" strategy. These collaboration, mutual assistance and healthy competition will promote and enhance the understanding of students on the fields of new energy materials and devices.

## ABOUT FACULTIES



### **Xiaodong Chen, Ph.D**

Academician of the Singapore Academy of Engineering,  
Professor of Nanyang Technological University,  
Director of Innovative Centre for Flexible Devices at Nanyang  
Technological University.



### **Jianhui Qiu, Ph.D**

Foreign academician of the Japanese Academy of Engineering,  
Professor of Akita Prefectural University  
The main founder of sino-Japanese International Conference on  
Composite Materials.



### **Luis Carlos, Ph.D**

Academician of the Brazilian Academy of Sciences  
Professor of University of Aveiro,  
Deputy Director of institute of Ceramics and Composites.



### **Andries Meijerink, Ph.D**

Academician of the Royal Netherlands Academy of Sciences,  
Professor of Utrecht University,  
President of the European Luminescence Society



### **Prikhna Tetiana Olexiivna, Ph.D**

Academician of National Academy of Sciences of Ukraine,  
Dean professor of chemistry at Kyiv National University of  
Construction and Architecture.



### **Hans Ågren, Ph.D**

Professor of Uppsala University,  
He is the Changjiang Distinguished Professorship.



**Aleksandr A. Kuchmizhak, Researcher**  
Researcher of Far Eastern Federal University.



**Alexander Stepanovich Grabtchikov, Ph.D**  
Professor of State Scientific Institution B.I.Stepanov Insitute of Physics of The National Academy of Sciences of Belarus.



**Oleg Levin, Ph.D**  
Professor of St Petersburg State University.



**Elena Alekseeva, Researcher**  
Researcher of St Petersburg State University.



**Kuksenko Sergii, Researcher**  
Researcher of Ukraine Academy of Sciences.



**Jiajun Wang, Ph.D**  
Professor of Harbin Institute of Technology,  
Director of Department of Electrochemical Engineering at Harbin Institute of Technology.



**Yang Gan, Ph.D**  
Professor of Harbin Institute of Technology,  
A member of FRSC, SEMI and ESC organizations.

## REQUIREMENTS

Students from chemistry, chemical engineering and material related majors will be accepted. Students must have strong English listening, speaking and writing skills so as to communicate and discuss with foreign experts in English. Students will be free for tuition and visit, and other expenses will be paid by themselves.

## SCHEDULE

### *Class Schedule*

<b>Name of Course</b>	<b>Credit hours</b>	<b>Credits</b>	<b>Test Form</b>
Course Teaching	28 credit hours	credit	Report
Cutting-edge Lecture	31.5 credit hours	credit	Report
Expert Discussion	14 credit hours	credit	Report
Experiment Course	3.5 credit hours	credit	Report
Innovation Competition	3.5 credit hours	credit	Competition

### *Cultural Experience*

<b>Program Name</b>	<b>Content</b>
History Museum and Space Museum of HIT	Feel the centennial brilliance of HIT
Sophia Concert Hall	Enjoy the fun of music
Central Street	Experience the local customs of Harbin

## 2022 The New Energy Materials and Devices International Summer School Program Schedule

	<b>July 31(Sun)</b>	<b>August 1 (Mon)</b>	<b>August 2 (Tue)</b>	<b>August 3 (Wed)</b>	<b>August 4 (Thu)</b>	<b>August 5 (Fri)</b>	<b>August 6 (Sat)</b>
8:00-11:30	Registration	Course Teaching 1	Cutting-edge Lecture 1	Course Teaching 2	Cutting-edge Lecture 2	Course Teaching 3	Course Teaching 3
14:00-17:30	Opening Ceremony	Course Teaching 1	Expert Discussion 1	Course Teaching 2	Experiment Course 1	Course Teaching 3	Visiting Activities and Social Activities 1
	<b>August 7 (Sun)</b>	<b>August 8 (Mon)</b>	<b>August 9 (Tue)</b>	<b>August 10 (Wed)</b>	<b>August 11 (Thu)</b>	<b>August 12 (Fri)</b>	<b>August 13 (Sat)</b>
8:00-11:30	Course Teaching 4	Cutting-edge Lecture 4	Cutting-edge Lecture 5	Expert Discussion 3	Cutting-edge Lecture 7	Cutting-edge Lecture 8	Cutting-edge Lecture 9
14:00-17:30	Course Teaching 4	Expert Discussion 2	Cutting-edge Lecture 6	Innovation Competition	Expert Discussion 3	Visiting Activities and Social Activities 2	Expert Discussion 4
	<b>August 14 (Sun)</b>	<b>August 15 (Mon)</b>	<b>August 16 (Tue)</b>	<b>August 17 (Wed)</b>	<b>August 18 (Thu)</b>	<b>August 19 (Fri)</b>	<b>August 20 (Sat)</b>
8:00-11:30	Closing Ceremony						
14:00-17:30	Students Return						