

# **V** OVERVIEW AND PURPOSE

### **Purpose**

The "Zhi-Hong" International Summer School of Advanced Materials (ISS-AM) is organized by School of Materials Science and Engineering (SMSE) at Shanghai Jiao Tong University (SJTU), aiming at promoting the interactive cultural and academic exchange between top-level scholars and students from all over the world. The ISS-AM is named as "Zhi-Hong" not only to commemorate the school founder Professor Zhihong Zhou, but also to inspire the summer school participants since "Zhi-Hong" in Chinese means "being ambitious"

"Zhi-Hong" ISS-AM is a two-week program with one theme. The theme in 2018 is "Advanced Materials Processing".



15 kW CO<sub>2</sub> Laser Welding



All-position Autonomous Welding Robot

# 3<sup>rd</sup> "Zhi-Hong" International Summer School of Advanced Materials (ISS-AM)

-Advanced Materials Processing-



Incremental Sheet Forming



Shot Peennina



Three-piece Wheel

### Introduction to SMSE

SJTU pioneered in setting up the discipline of Materials Science and Engineering (MSE) in China, based on the program of heat treatment of metals which was established in 1952. Nowadays, the MSE program in SJTU has been consistently ranked among the national top five, being No. 1 in 2003, as evaluated by the Minister of Education. In 2007, the MSE program of SJTU was authorized as the State Key Academic Program at Primary Discipline Level. MSE program of SJTU was ranked 27 in 2017 QS world university ranking and has been listed in the world top 0.1% discipline of ESI for years.

### What to expect

The "Zhi-Hong" ISS-AM will offer lectures and professional practice of all areas of advanced materials processing and organize student seminars, visits to research laboratories, culture festival, field trips and culture tours in Shanghai. The "Zhi-Hong" ISS-AM is also a platform provided for undergraduate and graduate students from all-over the world to interact and build friendship.

A "Zhi-Hong" ISS-AM Certificate of Accomplishment will be issued to the participant.

### **Enrollment**

Qualified students all over the world are welcome to apply for this program. A committee composed of SMSE professors at SJTU will make the final selection and determine scholarship winners based on the applicant's capability and academic records. SJTU will provide necessary assistance for the participants to apply for the visa to come to China.

In the last two years, the  $1^{st}$  and  $2^{nd}$  "Zhi-Hong" ISS-AM with the theme of "Advanced Metallic Materials" and "Advanced Functional Materials" were organized successfully. The two events attracted 44 international students from foreign universities, e.g. Carnegie Mellon University, UC Berkeley, The Ohio State University, University of Padova, University of Novi Sad, Federal University of Sao Carlos, Alexandria University and University of the Punjab, as well as 51 outstanding Chinese students. Many renowned experts and scholars from our school and foreign institutes, e.g. Northwestern University, The Ohio State University, Osaka University, National Institute for Materials Science in Japan, Federal University of Sao Carlos, were invited to give academic lectures. The summer school also offered various activities, e.g., field trips, student seminars, culture festival, and culture tours.



# √ TIME AND VENUE

**Time:** July 8-21, 2018 **Venue:** Minhang Campus, SJTU

### **√** CONTENTS

#### > Lectures

Topics of the lectures include laser processing and manufacturing, additive manufacturing, advanced casting, advanced welding, advanced forming and so on. All the lectures will be given by distinguished professors from oversea universities and SJTU.

### > Field trips

#### On campus:

The research labs affiliated to SMSE at SJTU, e.g. State Key Laboratory of Metal Matrix Composites, Light Alloy Net Forming National Engineering Research Center, Shanghai Key Laboratory of Materials Laser Processing and Modification, Shanghai Key Lab of Advanced High-Temperature Materials and Precision Forming.

#### Off campus:

Research facilities and manufacturing companies in Shanghai, e.g. Shanghai Synchrotron Radiation Facility, Baosteel, SAIC Motor, etc.

#### > Student seminars

All participants will be teamed up into several study groups. Students in each group will work together on a topic. Groups will make a final competition with each other through PPT presentation. The faculty committee will choose the best group and present the group members "Award of Excellent Team".

### > Culture tours

Campus tour, Chinese culture activities, and Shanghai city tour will be arranged.

## √ ELIGIBILITY

Graduate and undergraduate students who are majored in Materials Science and Engineering (MSE), or any other majors related to MSE, such as mechanical engineering, physics, and chemical engineering. A total of 50 domestic and oversea participants will be recruited.

### **√** LECTURERS

Professor Aihua Luo, The Ohio State University, USA Professor Yutaka S. Sato, Tohoku University, Japan Professor Yip-Wah Chung, Northwestern University, USA Professor Glenn Daehn, The Ohio State University, USA Professor Baode Sun, Shanghai Jiao Tong University, China Professor Ping Xiao, Shanghai Jiao Tong University, China

For most updated list of confirmed lectures, please visit the website of "Zhi-Hong" ISS-AM: http://en.smse.sjtu.edu.cn/summer\_school.as-p?id0=87&id1=766.





# **√** FEES

Tuition: 3000 RMB

Others costs: meals (~50 RMB/day) and transportation The summer school will cover the costs of lecture materials, lodging (in SJTU student dormitory), and transportation for group activities.

# **√** SCHOLARSHIPS

Type A: "Zhi-Hong Future" Scholarships

Amount: 8000 RMB/person

Number: 5

Each "Zhi-Hong Future" scholarship covers tuition fee and part of the international travel costs up to 5000 RMB/person.

Type B: "Zhi-Hong Excellence" Scholarship

Amount: 3000 RMB/person

Number: more than 80% of the enrolled participants

Each "Zhi-Hong Excellence" scholarship covers the tuition fee.

# **∀** HOW TO APPLY

The applications should be submitted to Ms. Weihui Xie by email at (zh\_iss@sjtu.edu.cn).

**Application materials:** 1) application form, 2) CV, 3) academic transcripts, 4) IELTS/TOEFL/CET6 score certificate or any other certificate showing the competency of English (waived for native English speakers), and 5) a one-page personal statement.

Application deadline: Apr. 15, 2018

\*International student should also apply on the website http://apply.sjtu.edu.cn.

### PROGRAM OVERVIEW (Tentative)

Day	Time	Event
1	8-Jul, Sun	Arrival, Registration
2	9-Jul, Mon	Opening Ceremony, Teaming-up, Ice-breaking, Campus Tour, etc.
3	10-Jul, Tue	Lectures
4	11-Jul, Wed	Lectures
5	12-Jul, Thu	Lectures
6	13-Jul, Fri	Company Visit, Cultural Festival
7	14-Jul, Sat	Culture Tour
8	15-Jul, Sun	Free time
9	16-Jul, Mon	Lectures
10	17-Jul, Tue	Lectures
11	18-Jul, Wed	Lectures
12	19-Jul, Thu	Company Visit
13	20-Jul, Fri	Group Presentation, Awards & Closing Ceremony
14	21-Jul, Sat	Departure

