



# TSSP2013

**TOHOKU UNIVERSITY SCIENCE SUMMER PROGRAM**

## **Advanced Science and Technology at Tohoku University**

**July 4<sup>th</sup> to July 12<sup>th</sup> 2013**

### **About Tohoku University**

Since its founding in 1907, Tohoku University has engaged in world-class education and research activities. Sendai city, where Tohoku University is located, has many cultural sites where you will have the chance to extensively experience Japanese culture.

### **TSSP 2013**

This summer, we will launch the **Tohoku University Science Summer Program (TSSP)**.

It is designed for undergraduates majoring in science and engineering.

We will offer cutting edge classes in advanced sciences and engineering.

Our aims are to provide students with insight on what world society needs based on advanced science and technology in the future and how they can contribute to society through research. The participants will be required to participate in 10 lectures and facility/ laboratory visits.

At the end of the program students will make a presentation according to the topics given by each lecturer.

The program is a 9-day summer program, which includes four components: lectures, facility/ laboratory visits, presentation and fieldtrip. The following topics will be covered.

*• Introduction to Spintronics • Electric vehicle and its electric motors • Computer Vision in Robotics  
• Robotics • Welcome to Carbon Nanotube World • Neutrinos • Genetic Engineering and its Application in  
Plant Fields • Modern Physical Chemistry • The 2011 Tohoku earthquake - Why did we fail to anticipate the  
M9 earthquake? – (Geological Environment and Earthquake Disaster)*

\*Topics are subject to change.

### **Application Procedures**

To apply for this program, students must be nominated by their home institutions and submit all the documents through their home institutions. Prospective students need to submit the following documents via **E-mail**.

1. Application Form for TSSP2013
2. ID Photo (4cm x 3cm) on the application form
3. Personal Statement (300-500 words)
4. Copy of your passport

### **Application Deadline**

April 30, 2013

## Eligibility

Applicants must be enrolled in full-time undergraduate degree programs at one of the following institutions. The program requires students to be fluent in English.

### **China**

Tsinghua U  
Wuhan U of Technology  
Zhejiang U  
Tianjin U  
Northeastern University

### **Singapore**

National U of Singapore

### **Australia**

U of Sydney  
U of New South Wales

### **France**

École Centrale de Lyon  
Grenoble Institute of Technology  
U of Rennes 1

### **Germany**

U of Göttingen  
Heidelberg U  
Karlsruhe Institute of Technology

### **Finland**

Aalto U  
U of Oulu

### **Sweden**

Uppsala U  
Royal Institute of Technology  
Stockholm University

### **United state of America**

U of California, Berkeley  
U of California, Davis  
U of California, Los Angeles  
U of California, Santa Barbara  
U of California, Riverside  
U of California, Santa Cruz  
U of California, San Diego  
U of California, Irvine  
Purdue U  
Pennsylvania State U  
U of Hawaii at Manoa

### **Canada**

U of Waterloo

## Credits

Participating students are required to take 10 lectures (20 hours), attend facility/laboratory visits and participate in group work sessions, after which they will give presentations with their groups. On completing these requirements, students should be eligible for 3 ECTS\*.

These credits are not conferred at Tohoku University. Students who require credits for this program should inquire at their home universities.

*\*1ECTS credit is equivalent to 25 hours of work.*

*\*ECTS credits are a value allocated to course units to describe the student workload required to complete them.*

**Number of Seats** 30 students

**Location** Tohoku University, Sendai, JAPAN

## Accommodation

Off-campus accommodations will be ten-minutes away by bus from Kawauchi campus, where most activities are held during the program. Each student will be accommodated in a furnished individual bedroom with a unit bathroom. The cost for the entire stay will be 40,000yen (4,000yen per night).

## Program Fee

Free (incl. tuition and field trips). Accommodation, travel and everyday expenses should be paid individually. Students are advised to prepare sufficient money for food and personal expenses.

## Scholarship

A JASSO(Japan student services organization) scholarship of 80,000 yen will be provided to students who successfully complete the program.

Tohoku University Center for International Exchange  
41 Kawauchi, Aoba-ku, Sendai, Miyagi 980-8576, Japan

Phone: +81-(0)22-795-4818

Fax: +81-(0)22-795-7826

Email: [tusp@bureau.tohoku.ac.jp](mailto:tusp@bureau.tohoku.ac.jp)

Website: <http://www.insc.tohoku.ac.jp/cms/index-e.cgi?pg=100915145040>