

**International Affiliated Double-Degree Program**

# **SUMMER SCHOOL**

**August 6–12, 2012**

Center for International Cooperation in Engineering Education  
Graduate School of Advanced Technology and Science  
The University of Tokushima  
Tokushima, Japan

## **Sponsors**

- ◇ Center for International Cooperation in Engineering Education (CICEE).
- ◇ The University of Tokushima.
- ◇ International Center, The University of Tokushima.
- ◇ FD Committee, Faculty of Engineering, The University of Tokushima.
- ◇ Faculty of Integrated Arts and Science, The University of Tokushima.

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## Course Details

- (i) Nanotechnology and Materials Science Course
- (ii) Electrical and Electronic Engineering Course
- (iii) Information Science and Intelligent Systems

## General Information

The Center for International Cooperation in Engineering Education (CICEE) at The University of Tokushima is pleased to announce that it will be hosting a summer school program for engineering graduate students who are studying at The University of Tokushima or its partner institutions. This program offers the following three courses: Nanotechnology and Materials Science, Electrical and Electronic Engineering, and Information Science and Intelligent Systems. Students may enroll in only one of the three courses. All courses are offered in English by both guest lecturers and faculty members of The University of Tokushima.

## Registration

Students are required to submit a registration form to the CICEE Office by e-mail, fax or post prior to the program, no later than Thursday, May 31, 2012. Registration fee is 3000 Yen for students and participants are responsible for their local travel expenses to The University of Tokushima and any other living expenses while in Tokushima except accommodation.

## Schedule

Each course has its own schedule for most of the period of the Summer School. Additionally, here is the common schedule for all participants.

### (i) Opening Ceremony

Date and Time: Monday, August 6, 9:30 a.m.- 9:50 a.m.

*Registration begins at 9:00 a.m. Please be prompt.*

Place: Memorial Hall, Second Floor, Memorial Hall of Alumni, Josanjima campus.

### Opening Remarks:

1. Prof. Susumu Kagawa (President, The University of Tokushima, Japan)
2. Prof. Tokuo Ohnishi (Dean, Faculty of Engineering,  
The University of Tokushima, Japan)
3. Prof. Yoshihisa Takaishi (Director, International Center,  
The University of Tokushima, Japan)

## **(ii) Common Lectures**

### **1. Common Lecture 1**

Date and Time: Monday, August 6, 10:30-11:20.

Place: Memorial Hall, Second Floor, Memorial Hall of Alumni, Josanjima campus

Speaker: **Prof. Hiroyoshi Sei** (The University of Tokushima)

Title: "Why do we sleep? Let's talk about sleep mechanism"

### **2. Common Lecture 2**

Date and Time: Tuesday, August 7, 09:30-10:20.

Place: Memorial Hall, Second Floor, Memorial Hall of Alumni, Josanjima campus

Speaker: **Mr. Hiroshi Sakata** (The University of Tokushima)

Title: "Japan as a multicultural nation".

### **3. Common Lecture 3**

Date and Time: Wednesday, August 8, 09:30-10:20.

Place: Memorial Hall, Second Floor, Memorial Hall of Alumni, Josanjima campus

Speaker: **Mr. Steve Fukuda** (The University of Tokushima)

Title: " Issues in Japanese Education: Focusing on National Language Policy ".

### **4. Common Lecture 4**

Date and Time: Thursday, August 9, 9:30-10:20.

Place: 302 and 303, Third floor, General Education Building, Josanjima campus

Speaker: **Prof. Makoto Ohashi** (The University of Tokushima)

Title: " Introduction to culture of Tokushima".

## **(iii) Intercultural meeting**

Date and Time: Wednesday, August 8, 18:00

Place: University Cafeteria, Josanjima campus

## **(iv) Round Table meeting**

### **1. Round Table I :**

Date and Time : Thursday, August 9, 10:30-12:00.

Place : 302 and 303, Third floor, General Education Building, Josanjima campus

Chairs: Prof. Makoto Ohashi and Dr. Pankaj Koinkar (The University of Tokushima)

Topic : Traditional Cultural, Food Culture and Learning from the disaster

### **2. Round Table II :**

Date and Time: Thursday, August 9, 15:30-17:00.

Place : 302 and 303, Third floor, General Education Building, Josanjima campus

Chairs: Prof. Makoto Ohashi and Dr. Pankaj Koinkar (The University of Tokushima)

Topic : Exchange program, General Education, Active learning

## **(v) Field Trip For Students**

Date and Time: Friday, August 10, 8:00-16.00

Meeting Place: In front of the CICEE office, First floor, K building

### Trip 1:

Schedule:

- 7:00 Departure from Tokushima University.
- 9:00 Awaji bridge, Maiko
- 12:30 Departure from Awaji bridge
- 13:00 Lunch
- 13.40 Departure from Awaji
- 16.00 Arrival at Nichia Hall, Shinkura campus

### Trip 2:

- 7:20 Departure from Tokushima University.
- 10:10 Arrival at Kazurabashi Bridge, Iya valley
- 12:00 Departure from Kazurabashi, Tokushima
- 12:30 Lunch
- 13.15 Departure from Kazurabashi
- 16.00 Arrival at Nichia Hall, Shinkura campus

## **(vi) Closing Ceremony**

Date and Time: Friday, August 10, 16:30-17:00.

Place: Nichia Hall, Shinkura Campus

Closing Remarks:

1. Prof. Susumu Kagawa (President, The University of Tokushima).
2. Prof. Tokuo Ohnishi (Dean, Faculty of Engineering, The University of Tokushima)
3. Prof. Yoshihisa Takaishi (Director, International Center, The University of Tokushima, Japan)

# Nanotechnology and Materials Science Course

**Place: Memorial Hall (Second Floor, Memorial Hall of Alumni, Josanjima campus)**

Day/ Time	Monday August 6	Tuesday August 7	Wednesday August 8	Thursday August 9	Friday August 10	Saturday August 11	Sunday August 12	
9:30 10:20	<b>Opening ceremony</b>	<b>Common lecture 2</b> (Sakata )	<b>Common lecture 3</b> ( Fukuda)	<b>Common lecture 4</b> ( Ohashi)	<b>Field trip</b> (8:00 to16:00)	<b>Free time for</b> <b>Japanese</b> <b>Cultural</b> <b>Experience</b>	<b>Free time for</b> <b>Japanese</b> <b>Cultural</b> <b>Experience</b>	
10:30 11:20	<b>Common lecture 1</b> ( Sei )	Lecture 5 ( Katoh)	Lecture 7 ( Amalnerkar )	<b>Round Table I</b> - Medical Care - Nutrition - Western Medicine & Oriental medicine				
11:30 12:20	Lecture 1 (Nagase)	Lecture 6 ( Tomita )	Lecture 8 ( Nakagaito )					
13:30 14:20	Lecture 2 (Nagata )	<b>Laboratory visit I</b>	<b>Communication and interaction time for students</b>	Lecture 11 ( Sunit Rane )				
14:30 15:20	Lecture 3 (Deguchi )	<b>Laboratory visit II</b>	Lecture 9 (Dinh )	Lecture 12 ( Kusaka )				
15:30 16:20	Lecture 4 (Yasuzawa )	<b>Laboratory visit III</b>	Lecture 10 (Dr. Mori )	<b>Round Table II</b> - Exchange program - General Education - Active learning in Linguistic education (15:30- 17:00)				<b>Closing Ceremony</b> (16:00- 16:30)
			<b>Intercultural Party</b> (18:00- 20:00)					

## **Titles :**

1. Lecture 1 : The Basis of Graphene: a new carbon nano-material
2. Lecture 2 : Current and Future trends of Carbon Fiber Technologies
3. Lecture 3 : Industrial applications of laser diagnostics
4. Lecture 4 : Preparation of functional surface
5. Lecture 5 : Challenge of environment friendly hydrogen production from bio-ethanol
6. Lecture 6 : Optical processes in semiconductors and its application
7. Lecture 7 : Revisiting Photoconductive CdS: 'Top-down' Photopatternable Microphotosensor & 'Bottom-up' Hierarchical Nanostructures
8. Lecture 8 : Cellulose nanofibers and nanocomposites
9. Lecture 9 : Nanocomposites for Organic Light Emitting Diodes
10. Lecture 10 : Colloidal photonic crystals
11. Lecture 11 : 'Lead Free' thick film thermistors for wide range of temperature sensing
12. Lecture 12 : Foundations and applications of measurement by X-ray diffraction

## **Common Activities**

- (i)** Opening Ceremony
- (ii)** Intercultural meeting
- (iii)** Round Table I and II
- (iv)** Field trip
- (v)** Closing ceremony

# Electrical and Electronic Engineering Course

Place: Seminar Hall (First Floor, Memorial Hall of Alumni, Josanjima campus)

## Schedule

Day/ Time	Monday August 6	Tuesday August 7	Wednesday August 8	Thursday August 9	Friday August 10	Saturday August 11	Sunday August 12	
9:30 10:20	<b>Opening ceremony</b>	<b>Common lecture 2</b> (Sakata)	<b>Common lecture 3</b> (Fukuda)	<b>Common lecture 4</b> (Ohashi)	<b>Field trip</b> (8:00 to 16:00)	<b>Free time for Japanese Cultural Experience</b>	<b>Free time for Japanese Cultural Experience</b>	
10:30 11:20	<b>Common lecture 1</b> (Sei)	Lecture 5 (Konaka)	Lecture 7 (Teranishi)	<b>Round Table I</b> - Medical Care - Nutrition - Western Medicine & Oriental medicine				
11:30 12:20	Lecture 1 (Yotsuyanagi)	Lecture 6 (Konaka)	Lecture 8 (Teranishi)					
13:30 14:20	Lecture 2 (Yotsuyanagi)	<b>Laboratory visit I</b> (Ohno)	<b>Communication and interaction time for students</b>	Lecture 11 (Shimomura)				
14:30 15:20	Lecture 3 (Ohno)	<b>Laboratory visit II</b> (Yotsuyanagi)	Lecture 9 (Takada)	Lecture 12 (Shimomura)				
15:30 16:20	Lecture 4 (Ohno)	<b>Laboratory visit III</b> (Teranishi)	Lecture 10 (Takada)	<b>Round Table II</b> - Exchange program - General Education - Active learning in Linguistic education (15:30- 17:00)				<b>Closing Ceremony</b> (16:00- 16:30)
			<b>Intercultural Party</b> (18:00- 20:00)					

## **Titles :**

1. Lecture 1 : VLSI Testing and Design for Testability
2. Lecture 2 : "
3. Lecture 3 : Wireless Power Transmission and GaN Electron Devices
4. Lecture 4 : "
5. Lecture 5 : About CMOS IC Technology and its Analog Circuit Design
6. Lecture 6 : "
7. Lecture 7 : Discharge Plasmas. Principle and Applications
8. Lecture 8 : "
9. Lecture 9 : Optical Fiber Transmission System
10. Lecture 10 : "
11. Lecture 11 : Applications of High Voltage Pulsed Power and Discharge Plasma
12. Lecture 12 : "

## **Common Activities**

- (i)** Opening Ceremony
- (ii)** Intercultural meeting
- (iii)** Round Table I and II
- (iv)** Field trip
- (v)** Closing ceremony



# Information Science and Intelligent Systems Course

**Place: Seminar Hall (Second Floor, Memorial Hall of Alumni, Josanjima campus)**

## Schedule

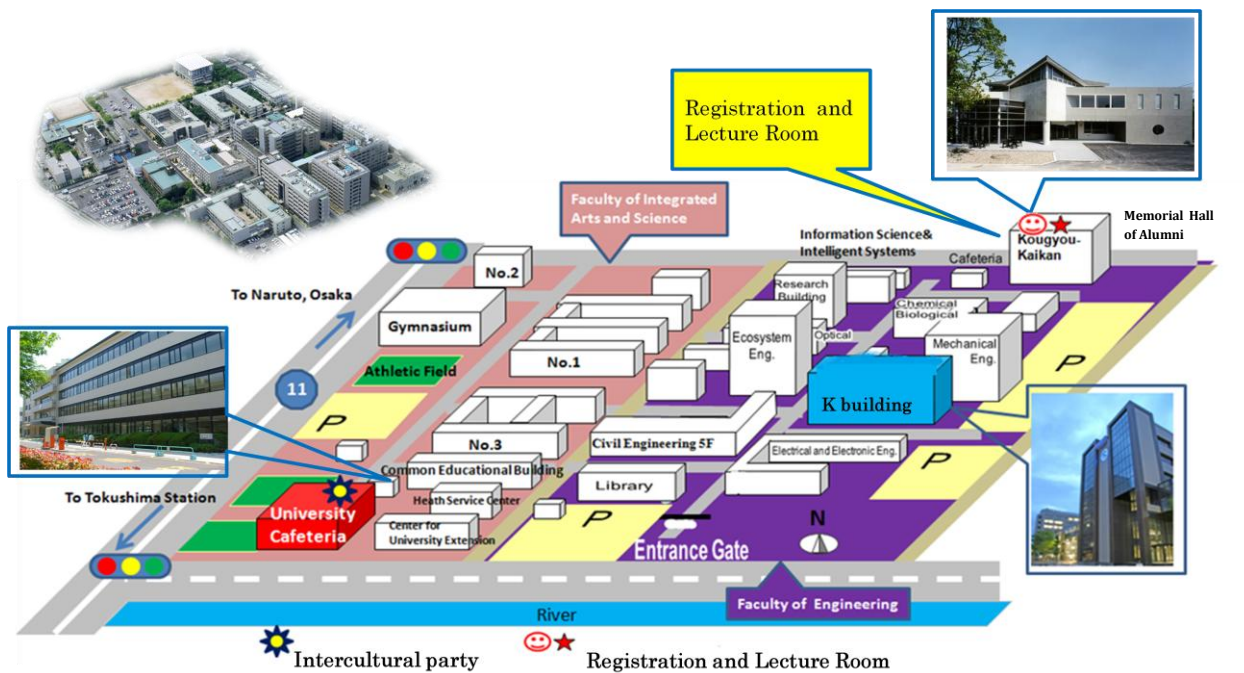
Day/ Time	Monday August 6	Tuesday August 7	Wednesday August 8	Thursday August 9	Friday August 10	Saturday August 11	Sunday August 12	
9:30 10:20	<b>Opening ceremony</b>	<b>Common lecture 2</b> (Sakata)	<b>Common lecture 3</b> (Fukuda)	<b>Common lecture 4</b> ( Ohashi )	<b>Field trip</b> (8:00 to 16:00)	<b>Free time for Japanese Cultural Experience</b>	<b>Free time for Japanese Cultural Experience</b>	
10:30 11:20	<b>Common lecture 1</b> ( Sei )	Lecture 5 ( Ueta )	Lecture 10 ( Watanabe )	<b>Round Table I</b> - Medical Care - Nutrition - Western Medicine & Oriental medicine				
11:30 12:20	Lecture 1 (Ogata )	Lecture 6 ( Ueta )	Lecture 11 ( Watanabe )					
13:30 14:20	Lecture 2 (Ogata )	Lecture 7 ( Kashihara )	<b>Communication and interaction time for students</b>	Lecture 14 ( Karungaru )				
14:30 15:20	Lecture 3 (Tokushige )	Lecture 8 (Matsumoto )	Lecture 12 ( Ito )	Lecture 15 ( Karungaru )				
15:30 16:20	Lecture 4 ( Mitsuhara )	Lecture 9 ( Karungaru )	Lecture 13 ( Fukumi )	<b>Round Table II</b> - Exchange program - General Education - Active learning in Linguistic education (15:30- 17:00)				<b>Closing Ceremony</b> (16:00- 16:30)
			<b>Intercultural Party</b> (18:00- 20:00)				<b>Awa Dance Festival</b> (18:00- 22:00)	

## **Title**

1. Lecture 1 & 2 : Collaboration, Ubiquitous and Social Technologies
2. Lecture 3 : Fundamentals and Applications of Error Control Coding
3. Lecture 4 : Game-based Learning Systems
4. Lecture 5 & 6 : Visualization of dynamic systems
5. Lecture 7 : Research Topics in Human-Machine Interfaces
6. Lecture 8 : Natural Language Processing and Information Retrieval
7. Lecture 9 : Introduction to Pattern Recognition Methods
8. Lecture 10 & 11 : Introduction of Quantum Cryptography
9. Lecture 12 : Safety driving systems focusing on human behaviors
10. Lecture 13 : Fast Statistical Learning Algorithm for Feature Generation
11. Lecture 14 & 15 : Introduction to Biometrics

## **Common Activities**

- (i)** Opening Ceremony
- (ii)** Intercultural meeting
- (iii)** Round Table I and II
- (iv)** Field trip
- (v)** Closing ceremony



☺ **Opening Ceremony** : Memorial Hall, Second Floor, Memorial Hall of Alumni, Josanjima campus.

☹ **Closing Ceremony** : Nichia Hall, Shinkura campus.

★ **Nanotechnology and Materials Science Course**: Memorial Hall, Second Floor,  
Memorial Hall of Alumni, Josanjima campus.

● **Electric and Electronic Engineering Course**: Seminar Room, First Floor,  
Memorial Hall of Alumni, Josanjima campus.

★ **Information Science and Intelligent Systems Course**: Seminar Room, Second Floor,  
Memorial Hall of Alumni, Josanjima campus.