



## JSPS Core-to-Core SANKEN Program , Purdue Seminar “Seminar for Sensing Technology by Nano Materials”

the Birck Nanotechnology Center, 1205 W State Street, West Lafayette, IN 47907

(the Birck Center is at the west end of Purdue's campus)

School of Electrical and Computer Engineering, Purdue University, West Lafayette, Indiana, USA

### Agenda on June 22(Thursday), 2017

| Time line   | Presentation title  | Speaker            |                     | Affiliation         |
|-------------|---|--------------------|---------------------|---------------------|
| 10:00-10:10 | Welcome word  | David Janes        | Professor           | Purdue Univ.        |
|             | Welcome word  | Kazuhiko Matsumoto | Professor           | Osaka Univ.         |
| 10:10-10:50 | <b>Presentations am-1 : Spintronics</b>                         |                    |                     |                     |
| 20min       | Nanomagnet networks as building blocks for Ising computing      | Zhihong Chen       | Professor           | ECE<br>Purdue Univ. |
| 20min       | Quantum device and spin control                                 | Akira Oiwa         | Professor           | Osaka Univ.         |
| 10:50-11:30 | <b>Presentations am-2 : Materials</b>                           |                    |                     |                     |
| 20min       | VO <sub>2</sub> Oxide material and device                       | Hidekazu Tanaka    | Professor           | Osaka Univ.         |
| 20min       | 2D Materials for Electronics and Optoelectronics                | Joerg Appenzeller  | Professor           | ECE<br>Purdue Univ. |
| 11:30-12:30 | <b>Lunch time &amp; networking coffee break</b>                 |                    |                     |                     |
| 12:30-13:50 | <b>Presentations pm-1 : Virus detection and devices</b>         |                    |                     |                     |
| 20min       | Pathogen detection using graphene device with microreactor      | Takao Ono          | Assistant Professor | Osaka Univ.         |
| 20min       | Graphene-wrapped microparticles for viral detection             | Lia Stanciu        | Professor           | MSE<br>Purdue Univ. |
| 20min       | Biosensors/virus detection                                      | Jacqueline Linnes  | Assistant Professor | BME<br>Purdue Univ. |
| 20min       | Virus detection by Graphene FET                                 | Kazuhiko Matsumoto | Professor           | Osaka Univ.         |
| 13:50-14:20 | <b>Networking coffee break</b>                                  |                    |                     |                     |
| 14:20-15:00 | <b>Presentations pm : Life science application</b>              |                    |                     |                     |
| 20min       | Implantable sensors and actuators for neurological applications | Hyowon (Hugh) Lee  | Assistant Professor | BME<br>Purdue Univ. |
| 20min       | Brain wave measurement system                                   | Takafumi Uemura    | Associate Professor | Osaka Univ.         |
| 15:00-15:05 | Concluding Remarks  | David Janes        | Professor           | Purdue Univ.        |
| 15:10-16:40 | <b>Purdue University Tours by Professor Hidekazu Tanaka</b>     |                    |                     |                     |
| 16:40       | <b>Adjourn</b>  |                    |                     |                     |