## PROGRAM

Date: Thursday, March 3, 2011

Place: Meeting Room 1, 7 Fl., Research Center for Advanced Science & Technology building,

General Chair: Professor Koji Abe (GCOE Program sub-leader)

08:50-09:00 Opening Address

Professor Toshihiro Hirai (GCOE Program leader)

| Time        |  | Presenter |
|-------------|--|-----------|
| 9:00-9:15   | Study on mechanical property of carbon nanotubes           | Xiaowen   |
|             |  | LEI       |
| 9:15-9:30   | Preparation and Characterization of                        | Haerim    |
|             | Novel Electrospun Metal-Deposited Nanofibers               | KIM       |
| 9:30-9:45   | Nonlocal elasticity theory for                             | Jinxing   |
|             | vibration of embedded double-layer graphene<br>nanoribbons | SHI       |
| 9:45-10:00  | Development of Innovative Polymer/Inorganic                | Yaofeng   |
|             | Nanocomposites and its Applications                        | ZHU       |
| 10:00-10:15 | Mechanical properties of dry twisted nanofilaments         | Yujin     |
|             |  | LEE       |
| 10:15-10:25 | Break  |           |
|             |  |           |

## PRESENTATION

| 10:25-10:40 | Structural Characteristics and Properties of Spider    | Lei   |
|-------------|--|-------|
|             | Silk Obtained by Different Artificial Forcibly Silking | ZHANG |
|             | Speeds   |       |
| 10:40-10:55 | Functional analysis of tetraspanin CD9 in              | Naoko |
|             | sperm-egg fusion                                       | ONAMI |
|             |  |       |
| 10:55-11:10 | Analysis of a New Kind of Major Ampullate Spider       | Leng  |
|             | Silk Gene  | HAN   |
|             |  |       |

| 11:10-11:25 | Study of chemiluminescence mechanism and its application to sensing                   | Takayuki<br>MARUYAMA |
|-------------|---|----------------------|
| 11:25-11:40 | <i>Effect of Interlinings on</i><br><i>Mechanical Properties of Garment Materials</i> | Kyoung Ok<br>KIM     |
| 11:40-12:40 | Lunch Break   |                      |

| 12:40-12:55 | Preparation of Electrospun Nonwoven Fabrics from   | Kesavan      |
|-------------|--|--------------|
|             | <i>Polymeric Materials of Natural Occurrence and Their Applications</i>                  | DEVARAYAN    |
| 12:55-13:10 | Synthesis of Electrodeposited Ordered Mesoporous   | Sho          |
|             | <i>RuO2 and Its Capacitor Property, Application to</i><br><i>Micro-Super Capacitor</i>   | MAKINO       |
| 13:10-13:25 | The study to develop DNA markers that are effective                                      | Daisuke      |
|             | for breeding programs of head vegetables   | ARUGA        |
| 13:25-13:40 | Effect of Rheological Properties on Electrospinning                                      | Fan          |
|             | of Ultra High Molecular Weight (UHMW) Poly (vinyl<br>alcohol)                            | LIU          |
| 13:40-13:55 | Synchronization Based Control for A Robotic Suit   | Xia<br>Zhang |
| 13:55-14:10 | Studies on proteins promote cellulose degradation by                                     | Hiroto       |
|             | cellulases   | NISHIJIMA    |
| 14:10-14:25 | Development of new hydrogelator based on cyclo   | Hiroko       |
|             | (dipeptide)  | HOSHIZAWA    |
| 14:25-14:40 | Design of Novel Functional Biomaterials Using<br>Biomolecules-Decorated Carbon Nanotubes | Jinhee KIM   |
|             |  |              |
| 14:40-14:50 | Break  |              |

| 14:50-15:05 | Cloning and analysis of genes coding for chitinolytic<br>enzymes from the novel chitinolytic<br>bacterium Chitiniphilus shinanonensis | Lanxiang<br>HUANG |
|-------------|---|-------------------|
| 15:05-15:20 | <i>Elucidation of whitening mechanism of polymers</i><br><i>coated on Japanese-paints on wall</i>                                     | Yusuke<br>OKADA   |

| 15:20-15:35 | Building of an energy production system using photosynthetic proteins                     | Takamitsu<br>UEKI         |
|-------------|---|---------------------------|
| 15:35-15:50 | Basic Study on the Inkjet Ink for Textiles  | Juyoung<br>PARK           |
| 15:50-16:05 | Study on cellulose synthesis in Asaia bogorensis  | Akio<br>KUMAGAI           |
| 16:05-16:20 | Robotization of the Plate Handling Task   | Purev-Ulzii<br>CHIMEDDORJ |
| 16:20-16:35 | Solvent-induced Phase-inversion and<br>Electrical actuation of Dielectric copolymer films | Yeonju<br>JANG            |
| 16:35-16:50 | Evaluation of the Perceived Elasticity of Sheepskin<br>using the Tri-axial Force Sensor   | Euichul<br>KWON           |
| 16:50-17:00 | Break   |                           |

| 17:00-17:25 | Hybrid Materials-Containing Nanofiber Webs :<br>Preparation and Its Unique Physico-Chemical<br>Properties   | Byoungsuhk<br>KIM    |
|-------------|---|----------------------|
| 17:25-17:50 | <i>PVA/cellulose whisker nanocomposite fibers :</i><br><i>Fibrillation property and mechanical behavior</i> | Ahmed Jalal<br>UDDIN |
| 17:50-18:10 | <i>Report for Short Term Study and Life in Manchester,</i><br><i>UK</i>                                     | Yusuke<br>OKADA      |

18:10-18:20 Closing Remarks Professor Makoto Shimosaka