

**Programs and Abstracts**  
**EDUCATIONAL RESEARCH EXCHANGE**  
**JOINT SYMPOSIUM**

*December 13-14, 2007*  
*Chiang Mai University,*  
*Chiang Mai, Thailand*

**Edited by**

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*and Research & International Relations Section,*  
*Faculty of Engineering,*  
*Chiang Mai University*

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## Educational Research Exchange Joint Symposium Time Table

|       | Dec.12(Wed)          | Dec.13(Thu)                                 | Dec.14(Fri)  | Dec.15(Sat)          |
|-------|----------------------|---|--|----------------------|
| 8:00  |                      | 8:00 – 9:15 Registration & Opening Ceremony | 8:00<br>Leave from Hotel   |                      |
| 9:00  |                      | 9:15-10:45<br>Session 1.1                   | 8:30<br>Leave from Hostel  |                      |
| 10:00 |                      | 11:45-11:00<br>Refreshment                  | 9:00-9:45<br>Lab Tour at Fac. of Science                                       |                      |
| 11:00 |                      | 11:00-12:30<br>Session 1.2                  | 10:00-10:45<br>Lab Tour at Fac. of Engineering                                 |                      |
| 12:00 |                      | 12:30-13:45<br>Lunch & Poster Preparation:  | 11:00-11:45<br>Lab Tour at Fac. of Agriculture                                 |                      |
| 13:00 |                      | 13:45-15:00<br>Session 1.3                  | 12:00-13:00<br>Lunch at UNISERV  |                      |
| 14:00 | Arrive to Chiang Mai | 15:00-15:30<br>Refreshment                  | 13:00-15:15<br>Session 2.1   | Departure to Airport |
| 15:00 |                      | 15:30-16:30<br>Session 1.4                  | 15:15-15:45<br>Refreshment   |                      |
| 16:00 |                      | 16:30-18:00<br>Intermission                 | 15:45-17:00<br>CMU-KU International Exchange (Panel Discussion)<br>Session 2.2 |                      |
| 17:00 |                      | 18:00-20:00<br>Poster Session               | 17:30-21:00<br>Closing Ceremony at Amari Hotel                                 |                      |
| 18:00 |                      | 20:00-22:00<br>Cocktail Party at UNISERV    | 21:00<br>Leave for Hotel & Hostel  |                      |
| 19:00 |                      |   |  |                      |
| 20:00 |                      |   |  |                      |
| 21:00 |                      |   |  |                      |

## Oral Presentation

**Thursday 13th December, 2007**

| 9.15 a.m.-10.45a.m.<br>Session 1.1  |     | Assoc.Prof.Dr. Prachya Kongtawelert/ CMU |   |                          |
|-------------------------------------|-----|--|---|--------------------------|
| Chair Person:                       |     |  |   |                          |
| 1.1.1                               | KU  | Mr. Arif- Ul- Hasan                      | Phylogeography and dispersion pattern of Anopheles farauti senso stricto mosquitoes in Melanesia  | Medicine and Agriculture |
| 1.1.2                               | CMU | Prof. Dr. Saisamorn Lumyong              | Induction of Xylanase Production in Thermophillic Fungus <i>Thermoascus Aurantiacus</i> SL16W   | Medicine and Agriculture |
| 1.1.3                               | KU  | Assoc.Prof.Dr. Ikuko Tsukamoto           | Physiological Activites of Rare Sugars. I. Basic Research   | Medicine and Agriculture |
| 1.1.4                               | KU  | Prof.Dr.Masaaki Tokuda                   | Physiological activities of rare sugars:Applicative research  | Medicine and Agriculture |
| 1.1.5                               | KU  | Assoc.Prof.Dr.Goro Takata                | Cloning and expression of thermostable enzyme genes from Bacillus pallidus and their applications for rare sugar production   | Medicine and Agriculture |
| 1.1.6                               | CMU | Assoc. Prof.Dr.Prachya Kongtawelert      | A Novel Monoclonal Antibody Against Specific Sulfating Pattern of Chondroitin Sulfate and Its Application in Diagnosis of Diseases  | Medicine and Agriculture |
| 11.00 a.m.-12.30p.m.<br>Session 1.2 |     | Dr.Stureeratna Lakanavichian/ CMU        |   |                          |
| Chair Person:                       |     |  |   |                          |
| 1.2.1                               | MU  | Asst.Prof. Ryoei Ito                     | Application of ICT in ATRACT Project  | Agriculture              |
| 1.2.2                               | CMU | Dr. Tanachai Pankasemsuk                 | Technology Transferred From ATRACT Project to Chiang Mai Food Safety  | Agriculture              |
| 1.2.3                               | MU  | Asst Prof.Tomohiro Uchiyama              | The Cost Analysis of Agrochemical Usage and the Achievement of the Alternative Technologies in Northern Thailand  | Agriculture              |
| 1.2.4                               | KU  | Prof.Dr. Hisashi Kato                    | Research in rice allelopathy as a reduced agriculture chemical technology   | Agriculture              |
| 1.2.5                               | KU  | Prof.Dr. Michio Tanaka                   | Acclimatization of Phalaenopsis Clone-Plantlets by Using a Low Power Consumption Lighting System (SILHOS) with Hydroponic Cultured System in Temperature-Controlled Chamber | Agriculture              |
| 1.2.7                               | CMU | Dr.Panida Rattanapitigorn                | Immobilized Bifidobacterium Strains and Theirs Survival in Freeze-Drying and Simulated Gastrointestinal conditions  | Agriculture              |

## Oral Presentation

Thursday 13th December, 2007

| Chair Person:                      |               | Dr. Daruni Naphrom/ CMU |  |                         |
|------------------------------------|---------------|-------------------------|--|-------------------------|
| 1.45 p.m.-3.00 p.m.<br>Session 1.3 | 1.3.1         | CMU                     | Effect of Some Pesticides and Bio-substances on Aphid Number, Fruit Quality and Their Chemical Residue in Tangerine cv. Sai Nam Phung  | Agriculture             |
|                                    | 1.3.2         | KU                      | Molecular Mechanism of Specificity Controlling Susceptibility of Plant Mitochondrial Disease   | Agriculture             |
|                                    | 1.3.3         | KU                      | Natural Antimicrobial Proteins to Control Undesirable Microorganisms in Foods  | Agriculture             |
|                                    | 1.3.4         | KU                      | Reproductive biology of predatory mites Macrocheles muscaedomesticae (Macrochelidae) and Parasitus finetorum (Parasitidae) inhabiting animal-manure as the natural enemies of pest flies | Agriculture             |
|                                    | 1.3.5         | CMU                     | Soil Testing Kit and the Application to Reduce Chemical Fertilizer Usage   | Agriculture             |
| 3.30 p.m.-4.30 p.m.<br>Session 1.4 | Chair Person: |                         | Prof. Dr. Fumikazu Oohira/ KU  |                         |
|                                    | 1.4.1         | KU                      | Research Activities on Micro-Nano Technologies in Kagawa University  | Science and Engineering |
|                                    | 1.4.2         | KU                      | Wide Range Nano-level 3-D shape Measurement Using Combination of Multiple Laser Light  | Science and Engineering |
|                                    | 1.4.3         | KU                      | The Telemedicine Network of Kagawa Prefecture  | Science and Engineering |
|                                    | 1.4.4         | CMU                     | Vital-Signs Monitoring System via Wireless Technology  | Science and Engineering |

## Oral Presentation

**Friday 14th December, 2007**

| 1.00 p.m.-3.15 p.m<br>Session 2.1 |     | Chair Person:                             | Assoc.Prof.Dr. Hideyuki Sawada/ KU   |                               |
|-----------------------------------|-----|---|--|-------------------------------|
| 2.1.1                             | CMU | Asst.Prof.Dr. Chayanon Hansapimyo         | Analysis of Chloride Diffusion of Reinforced Concrete Marine Structures in Thailand                        | Science and Engineering       |
| 2.1.2                             | CMU | Dr. Suwit Saekho                          | A Fast-kz 3D Tailored RF pulse for Reduced B1 Inhomogeneity  | Science and Engineering       |
| 2.1.3                             | KU  | Prof.Dr. Shuxiang Guo                     | A Novel Type Microrobot for Biomedical Applications  | Science and Engineering       |
| 2.1.4                             | CMU | Asst.Prof.Dr. Jeerayut Chaijarwanich      | Inference of Gene Regulatory Network by Bayesian Network using Metropolis-Hastings Algorithm               | Science and Engineering       |
| 2.1.5                             | CMU | Dr. Orawan Prasartwuth                    | Invention Sample and Hold Amplifier (SHA) for evaluating the activation failure of nervous system          | Science and Engineering       |
| 2.1.6                             | CMU | Asst. Prof. Dr. Sansanee Auephanwiriyakul | Microcalcification Detection in Mamunograms Using Interval Type -2 Fuzzy Logic System                      | Science and Engineering       |
| 2.1.7                             | CMU | Assoc.Prof.Dr. Nipon Theera-Umpon         | Ionosheric F-Layer Critical Frequency Estimation from Digital Ionogram Analysis                            | Science and Engineering       |
| 2.1.8                             | KU  | Assoc.Prof.Dr. Hideyuki Sawada            | Human Interface Studies for Communication between Human and Systems  | Science and Engineering       |
| 2.1.9                             | KU  | Prof.Dr. Manabu Matsushima                | Study on Prediction of deteriorated Structure received Chloride induced Damage based on Reliability Theory | Science and Engineering       |
| <b>Panel Discussion</b>           |     |   |  |                               |
| 3.45 p.m.-5.00 p.m<br>Session 2.2 |     |   |  |                               |
| 2.2.1                             | KU  | Takeshi Katayama                          | New International Exchange Plans between Kagawa University (Agriculture) and Chiang Mai University         | CMU-KU International Exchange |

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