Global Center of Excellence (GCOE)
Kyoto University-University of Malaya

Kyoto University Global COE Program
Global Center for Education and Research on
Human Security Engineering for Asian Megacities

Special Coordination Funds for Promotion Science and Technology
Strategic Program for Fostering Environmental Leaders
International Center for Human Resource Development in
Environmental Management

CONTENTS

Messages 1
Memorabilia 2
HSE 3
EML 4
Asian Core 5
Action Research 6
Timeline & Contact Information 7

A short visit and meeting with Kyoto University's Executive Vice President (External Affairs and Alumni) and delegates at GCOE KU-UM office (June 29, 2011).

The new members in the organization of GCOE KU-UM; Dr. Nobumitsu Sakai; Working Committee (end left) and Azizi Abu Bakar; Research Assistant (end right).

GCOE KU-UM is an international program under:
The University of Malaya has successfully established long term collaboration with Kyoto University stretching more than two decades notably under the JSPS-VCC program. The year 2010 gears up another avenue of research collaboration in the form of an offshore base of Kyoto University known as Global Center of Excellence Kyoto University-University of Malaya or in abbreviation GCOE KU-UM. During the official launch in January 2010, two projects kick start the function of this offshore base namely Global Center for Education and Research on Human Security Engineering for Asian Megacities (GCOE-HSE) and the International Center for Human Resource Development in Environmental Management (EML).

GCOE KU-UM has three objectives as its instrument of concern: 1) To carry out relevant corporative research projects, 2) To recruit potential doctoral students, and 3) To construct an innovative academia in the related fields.

The year 2011 saw the initiation of new program which is Asian Core program. All of these three programs have core elements based on collaboration of research in an international set up. In the future as in the past, it is hope that continuation of this collaboration will produce more new research areas which can lead to innovation of environmental system, technology and solving problems particularly for Asian countries. In order to move forward, I humbly request for your great support and cooperation not only among universities but also government bodies, government linked companies (GLCs), NGOs, industries and local communities. Thank you.

Welcome Message from UM Deputy Vice-Chancellor (Research & Innovation)

Professor Dr. Nik Meriam Nik Sulaiman
GCOE KU-UM Coordinator
Dean of Sustainability Science (SuSci) Cluster
Senior Professor
Chemical Engineering, Faculty of Engineering
University of Malaya

Message from GCOE KU-UM Coordinator

The coordinator is also the Holder of Dr. Siti Hasmah Chair under the auspices of the Women’s Graduate Association of Malaysia.
The opening ceremony of Kyoto University—University of Malaya Overseas Base in Malaysia for Education and Research on 20th January 2010.

Above: The official pamphlet design for the opening ceremony.

Left: Tan Sri Prof. Dr. Ghauth Jasmon (UM Vice Chancellor) with former Japan Ambassador, H.E. Masahiko Horie. Middle: The official launching ceremony. Right: Signing of guest book in GCOE KU-UM office.

From left: Prof. Dr. Yoshihisa Shimizu, Prof. Dr. Yuzuru Matsuoka, Prof. Dr. Shigeo Fujii, Prof. Dato’ Dr. Jamil Maah, H.E. Masahiko Horie, Prof. Dr. Koichiro Oshima, Tan Sri Prof. Dr. Ghauth Jasmon, Prof. Ir. Dr. Mohd Jailani Mohd Nor, Prof. Dr. Nik Meriam Nik Sulaiman.

Right: The new IPPP building where the GCOE KU-UM new office will be transferred by December 2011. The new building is just next to GCOE KU-UM former office at Institute of Graduate Studies (IGS) (upper right side).
The program will conduct the following activities:

2. Research Activities: promote key joint research projects and organize many international symposia and workshops.

The program welcomes your participation as:

1. Doctoral student
2. Partnership institution, organization and company.
This is a strategic program for fostering environmental leaders. The three graduate schools, Global Environmental Studies, Engineering and Energy Science are taking the lead in this university-wide project. In this program, to meet the demand of developing countries, through various research projects, we will foster environmental leaders who have the ability to solve environmental problems in Asia. For this purpose the program provides multidisciplinary coursework for understanding the situation in Asia, long term internships for experiencing the duties of environmental leaders from problem finding to the presentation of solutions and thesis research directly related to environmental issues in Asia.

The key features of the program:

- Multidisciplinary coursework (Lectures in English)
- Strong emphasis on practical aspects (Internship program)
- Thesis research

About this program:

1) Continues for five years to foster environmental leaders who can solve environmental problems in Asian countries.
2) Is funded by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) as a part of “Strategic programs for cooperation in science and technology for Asia and Africa”.
3) Is run by Kyoto University as the core institution with close cooperation with overseas field campuses and partnership institutions, organizations and companies.
4) Provides multidisciplinary coursework in environmental management, long term internships, team projects and thesis research.
5) Will educate Masters and Ph.D. students through a long-term program, will provide a short term program at each overseas field campuses.
The bid of the program was coordinated by Kyoto University and University of Malaya in 2010 (UM as the coordinator in Malaysia) and the other supporting Malaysia universities are UKM, UTM and UMS. The duration of this program is according to the Japanese financial year starting from April 2011 to March 2016. The research topics deemed to be of cutting-edge and high international importance (including all fields, i.e. humanities, social sciences and natural sciences).

**Group 1: Hydrology**
- Water usage
- Hydrological Analysis

**Group 2: Water Quality**
- Water quality monitoring
- Water treatment

**Group 3: Risk Assessment**
- River pollutant
- Exposure amount

**Group 4: Governance**
- Governance system
- Nationality

Program Coordinator:
Yoshihisa Shimizu
Professor
Graduate School of Engineering
(Research Center for Environmental Quality Management)
Kyoto University

Four types of collaboration
- Symposium
- Exchange
- Collaboration
- Co-research

To create Malaysian type of integrated watershed management system
A collaborative effort between the Kondo Rakyat (Pantai Dalam, Kuala Lumpur) community with their neighboring communities i.e. Telekom Malaysia (TM), University of Malaya, and Unilever to transform Kondo Rakyat into a more environmentally sustainable living area.

**Research Objectives:**

1. To analyze several cycles of action research experiments, in order to initiate and assist the transformation of the Kondo Rakyat community towards higher commitment in environmental sustainability.

2. To apply systemic evaluation and reflection of the effectiveness for the action research experiments in achieving its objectives and to use the results of the evaluation and reflection to improve the experiment further in subsequent cycles.

3. To develop a comprehensive report on lessons learned from the Kondo Rakyat experience not only for academic publication but also for public reading and dissemination.

*Four sustainability projects have been shortlisted for the research namely used-cooking oils, green bazaar, kitchen garden and composting.*

<table>
<thead>
<tr>
<th>No.</th>
<th>Projects</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Used-cooking Oil</td>
<td>To create awareness, provide facilities as well as mechanism for a systematic used-cooking oil collection. This oil can then be sold to generate side-income for the community. Mitigation of water pollution can also be addressed through this project.</td>
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<td>2.</td>
<td>Green Bazaar</td>
<td>To set-up an iconic green bazaar for recyclables and environmentally friendly-based products at Kondo Rakyat. This project will encourage the practice of recycling and entrepreneurship activities amongst the Pantai Dalam community.</td>
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<tr>
<td>3.</td>
<td>Kitchen Garden</td>
<td>To fully utilize empty lands in the Kondo Rakyat compound by planting various species of edible plants. These plants can be used personally by the community or can be sold at the Green Bazaar. The concept of ‘1 Rumah 1 Pokok’ (1 Plant per Home) will also be introduced in the project.</td>
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<td>4.</td>
<td>Composting</td>
<td>To train the community of Kondo Rakyat about composting techniques and to deliberate the possibility of establishing composting facilities in the Kondo Rakyat.</td>
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Programs and its duration under international collaboration between Kyoto University and University of Malaya

Programs Contact Information

HSE program:
Urban Human Security Engineering Education and Research Center
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EML program:
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Asian Core program:
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