

## Learning Express in Yogyakarta, Indonesia (March 2013)



### PROGRAMME OBJECTIVES

Learning Express seeks to promote Design Thinking and Social Innovation. By bringing together students from various disciplines and partner institutions in Indonesia, teams will collaborate to contribute to a community as they apply domain skills and use the Design Thinking methodology to co-create innovative solutions that strives to meet the needs of the local community. Some of these challenges include clean water, alternative energy, food production & innovation, healthcare and enterprise issues.

This is an immersive experience for the students as the team works together closely with their peers in the local community hence nurturing a sense of purpose and social contribution to society. As teams interact with the communities they visit, they expand their cultural quotient as they unravel new insights into different communities, their cultures, and norms.

### STUDENTS & STAFF

The inaugural run of the Learning Express in March 2013 brings together 23 students from various disciplines in SP of which the break down are as follows:

- 5 from School of Business
- 2 from School of Mechanical & Aeronautical Engineering
- 4 from School of Electrical & Electronic Engineering
- 5 from School of Chemical & Life Sciences
- 7 from School of Digital, Media & Information Technology

These 23 students are accompanied by 7 SP staff from School of Business, School of Mechanical & Aeronautical Engineering, School of Electrical & Electronics Engineering,

School of Chemical & Life Sciences, School of Communications and Social Sciences and the Department of Educational Development.

In addition, staff and approximately 21 students from the two partner universities in Indonesia, UMY & UPN; 1 staff & 4 students from Kanazawa Institute of Technology, Japan; and 1 staff & 2 students from Duy Tan University, Vietnam will join the Learning Express.

### **Effective and environment friendly cassava crackers @ Kradenen & Polengan, Magelang District**

*To explore effective, efficient and environment friendly ways of making Pathilo Merapi (Cassava Crackers) in cottage industries.*

Some women in the villages of Kradenan and Polengan are involved in the production of Cassava crackers for side income. Both villages received the same training in the Cassava cracker production from Muhammadiyah, a major social-religion organization. Hence, both villages have very similar equipments and demonstrate similar production process. Currently, the process is highly manual.

The local community is keen to explore effective, efficient and environment friendly ways in the cassava cracker making process.

Main issues identified in the cassava crackers production process are:

1. Strenuous effort in squeezing out water from Cassava crumbs. The mechanical press provided is unreliable and ineffective (i.e hard to operate and always breakdown).
2. Grating of Cassava crumbs may be hazardous to the hands and the depositing of crumbs on mould plate could be less messy.
3. Air pollution from burning coconut husk as fuel, in a stove for steaming Cassava lumps. Much heat energy which should be channeled to cooking are lost to the environment.
4. Laborious peeling of dried Cassava crackers from bamboo mats.

The local community is keen to explore effective, efficient and environment friendly ways in the Cassava cracker making process.

Before embarking on this trip, students had a two day workshop where they visited Tekka market and a kitchenware wholesaler to learn and understand the equipment, ingredients and cooking techniques they will be facing for this project.

Students also had a hands-on experience in producing tapioca cakes manually from the raw tuber. Various food production processes like slicing, grating, squeezing, firelighting & cooking with wood etc. were incorporated into the workshop to allow students an authentic experience in understanding the production chain and issues they will be facing in Indonesia.

### **Developing a business model for Eco Village @ Gatak, Kasihan District**

*To tap on Green identity of Eco Village to develop products through up-cycling waste and developing a business model for products*

The community in Gatak village in Kasihan subdistrict has current strengths in waste management, green education, recycling, reforestation efforts, as well as the sales of creative recycled products. A community-driven project, the efforts of the Gatak village earned them the title of a “green village” in a competition that more than a thousand villages participated in.

Tapping on their strengths as a green village with strong cultural identity, the possibility of developing an eco/rural-tourism business model can be explored as an alternative livelihood for villagers. This could include the marketing and sales of creative up-cycled products.

Students were exposed to eco-tourism, local product innovation in social enterprises and explored common materials like paper & how they can be used differently.

Before embarking on this trip, students had a two day workshop where they visited a farm and social enterprise to understand the complexities of managing a business/social enterprise that has to be profitable while sustaining the partnerships with their stakeholders.

Students also had an authentic hands-on experience in designing and producing handicrafts using materials that they will encounter in Indonesia.