

# UG Research Academy

## 13 – 17 July 2014

### 1. Background

The UG Research Academy was proposed by Prof. Er Meng Hwa of Nanyang Technology University (NTU) at the last ASPIRE Forum, held on 12-13 July 2012 at Korea Advanced Institute of Science and Technology (KAIST), Daejeon. During the sharing session, Prof. Er highlighted the challenges facing Asia in the 21<sup>st</sup> century, which includes continued expansion of population, the rise in income of families due to fast economic growth, and the overall impact of human activities on physical environment producing multiple environment crises never witnessed before in history. Prof. Er believes that Asia's voice for science and technology cannot be underestimated. The ASPIRE League (Asian Science and Technology Pioneering Institutes of Research and Education), a consortium established in 2009, is aimed at forming a hub for innovation in Asia through the advancement of science and technology and the development of human resources, thereby contributing to the realisation of a sustainable world. The ASPIRE League has set out to promote academic exchange of students and researchers by establishing a network of world-class science and technology universities. This UG Research Academy is thus proposed for this purpose.

### 2. Objectives of UG Research Academy

The Academy is an enrichment programme for undergraduate students who are currently doing a research project which is energy and sustainability related; and may cover technical, physical, social, economic, political, environmental or business aspects. The students will:

- learn from experts the latest technologies related to renewable energy;
- present their research projects with the objective of sharing knowledge with their peers from other top technological universities;
- network with energy and environment experts and students and gain relevant soft skills such as communication; and
- learn from case studies on field trips.

### 3. General guidelines

- Theme of the UG Research Academy: Sustainable Energy and Environment (water, energy, climate change).
- Identify 5 undergraduate students from each university who are working on supervised research projects related to the above theme.
- The students from the respective universities will come together to exchange research findings through the Academy.
- Each member university may take a turn hosting the Academy. All **local** cost<sup>1</sup> incurred (transport, accommodation, visits and food) will be borne by the host university.

- NTU is pleased to host the first UG Research Academy and bear the local cost for 4 nights stay.
- Students are strongly encouraged to take up travel insurance from their home country to cover medical expenses that may be incurred in Singapore.

### 4. Tentative Programme

Time	Day 0 (13 July 2014)
Between 12:00 and 15:00	Arrival and check in to NTU Halls of Residence + Registration
16:00 – 16:30	NTU Video (virtual tour) and Introduction to ERI@N
16:30 – 17:00	UG Research Academy Programme Briefing + Q&A
17:00 – 18:00	Ice breaking activities
18:00 – 19:30	Dinner
19:30 – 20:30	Free and Easy
Time	Day 1 (14 July 2014)
08:00 – 09:00	Breakfast & Transfer to programme venue
09:00 – 10:00	Lecture 1 (Wind and Marine Renewable Energy) + Q&A
10:00 – 10:30	Tea Break
10:30 – 11:30	Lecture 2 (Solar PV and Solar Thermal Energy) + Q&A
11:30 – 12:30	Lecture 3 (Electric Vehicles) + Q&A
12:30 – 14:00	Lunch
14:00 – 17:00	Lab visits (ERI@N + LaCER)
17:00 – 18:00	Free & Easy
18:00 – 22:00	Dinner & Social Programme at Night Safari
Time	Day 2 (15 July 2014)
07:30 – 08:30	Breakfast & Transfer to programme venue
08:30 – 09:30	3 Presentations + Q & A
09:30 – 10:30	3 Presentations + Q & A
10:30 – 11:00	Tea Break
11:00 – 12:00	3 Presentations + Q & A
12:00 – 13:00	3 Presentations + Q & A
13:00 – 14:00	Lunch
14:00 – 14:30	Free & Easy
14:30 – 18:30	Site Visits
18:30 – 19:30	Dinner
19:30 – 21:00	Free and easy
Time	Day 3 (16 July 2014)
07:30 – 08:30	Breakfast & Transfer to programme venue
08:30 – 09:30	3 Presentations + Q & A
09:30 – 10:30	3 Presentations + Q & A
10:30 – 11:00	Tea Break
11:00 – 12:00	3 Presentations + Q & A
12:00 – 13:20	4 Presentations + Q & A
13:20 – 14:30	Lunch+ Closing
14:30 – 15:00	Free & Easy
15:00 – 17:00	Site Visits
17:00 – 20:00	Free & Easy (in the city)
Time	Day 4 (17 July 2014)
By 12:00	Check-out Breakfast will be provided

<sup>1</sup> Excludes food and personal expenses incurred by students during Free & Easy time.