LAMPIRAN 1

TENTATIVE PROGRAM FOR A WORKSHOP IN AUSTRALIA
30 MAY 2013 – 3 JUNE 2013

28 May 2013 (Tuesday)

2140	-	Depature to Sydney, Australia (Flight MH123)

29 May 2013 (Wednesday)

0800	-	Arrival at Sydney International Airport
1200	-	Check-in Maclin-Lodge Hotel

30 May 2013 (Thursday)

0900-1800	-	**Arrive at University of Western Sydney** Workshop organized by Professor Janusz Nowothy and Dr Jumiati, Consulate of Education Malaysia Australia Sydney

31 May 2013 (Friday)

0900-1800	-	**Second Day Workshop at University of Western Sydney** organized by Professor Janusz Nowothy and Dr Jumiati, Consulate of Education Malaysia Australia Sydney
	-	**Visit to Solar Energy Technologies Lab** *PIC :* Professor Janusz Nowothy

1 June 2013 (Saturday)

0900-1200	-	**Discussion on Joint Publication of Review Paper as outcome of the workshop** *PIC :* Dr. Asri
1300	-	Travel to Sydney
	-	Check-in Leisure Inn Sydney Central

2 June 2013 (Sunday)

	-	Weekend Holiday

3 June 2013 (Monday)

0900-1300	-	**Arrive at University of New South Wales** Lab visit to Mark Wainwright Analytical Centre *PIC :* Associate Professor Marion Stevens-Kalceff, Deputy Director, Electron Microscope Unit, UNSW Analytical Centre

3 June 2013 (Monday)

2140	-	Departure to Malaysia

4 June 2013 (Tuesday)

0500	-	Arrival at KLIA

LAMPIRAN 2

Oxide Semiconductors for Solar Energy Conversion: Nanotechnology Approach

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Abstract

The present work considers the nanotechnology approach in the formation of oxide semiconductors for the conversion of solar energy into the chemical energy required for water purification (removal of bacteria and alternative toxic organic compounds) and the generation of solar hydrogen fuel by water splitting. This work involves two parts. The first part considers the progress of research in the formation of oxide systems for the conversion of solar energy into chemical energy. This part also considers selected effects related to the application of nanotechnology in the formation of systems with high performance. This part is summarised by a list of unresolved problems of crucial importance in the formation of system with enhanced performance and formulates the questions that must be address to overcome the hurdles in the formation of high performance oxide semiconductors with high performance in water purification and the generation of solar fuel. The second part of this work considers the strategy in the development of systems with high performance, including photocatalysts for solar water purification and photoelectrodes for photoelectrochemical water splitting.

LAMPIRAN 3

Gambar 1: Pembentangan bengkel oleh Prof. Janusz dan wakil-wakil dari Australia Network.

Gambar 2: Sesi perbincangan di dalam kumpulan untuk merangka skop dan *milestone*.

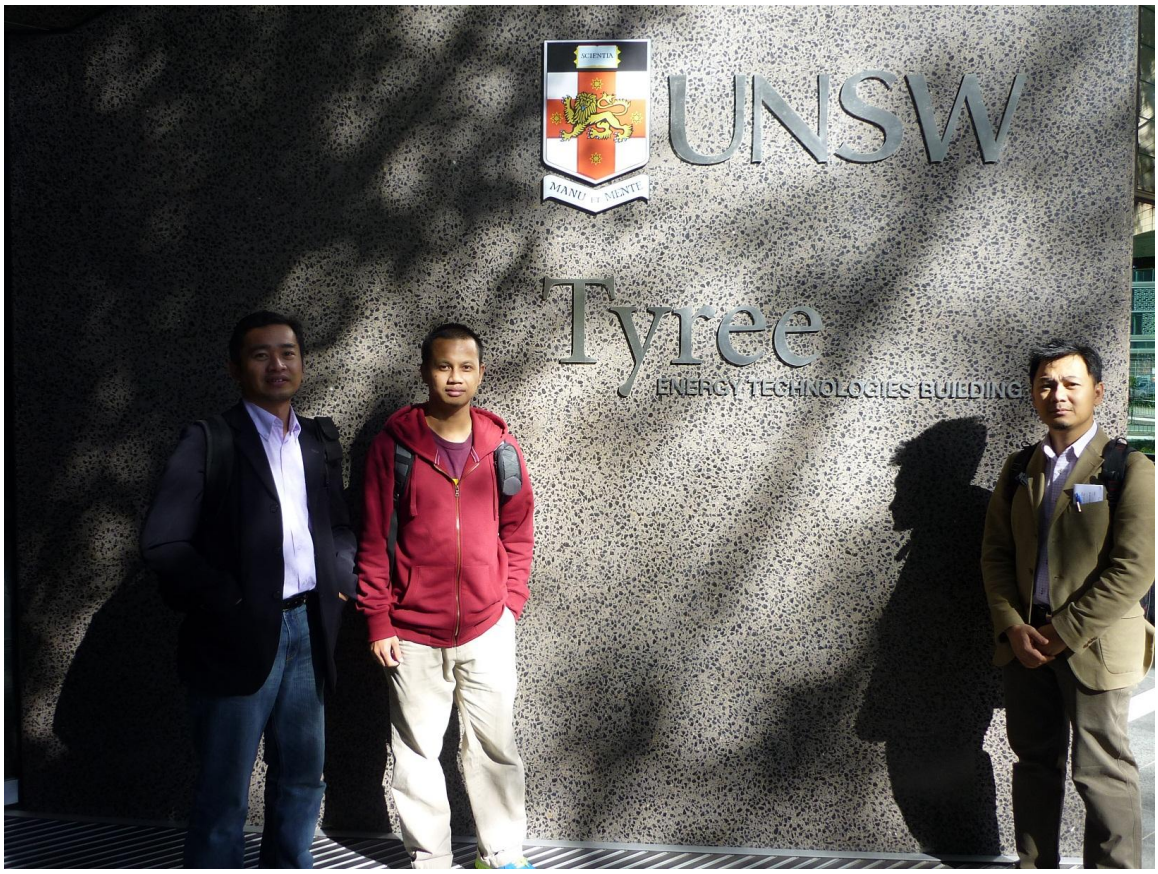
Gambar 3: Sesi bergambar bersama ahli-ahli bengkel dari Malaysia dan Australia.

Gambar 4: Sesi pembentangan cadangan penyelidikan oleh wakil UTHM.

Gambar 5: Sesi lawatan ke Makmal Solar Energy Technologies bersama Prof. Janusz.

Gambar 6: Sesi lawatan ke Makmal Solar Energy Technologies bersama A/Prof.T. Bak.

Gambar 7: Sesi lawatan ke Makmal Solar Energy Technologies.



Gambar 8: Sesi lawatan ke University of New South Wales, bersama dengan pensyarah USM.

Gambar 9: Sesi lawatan ke University of New South Wales, bersama dengan Assoc. Prof Marion.

Gambar 10: Sesi lawatan ke Makmal XRD yang menempat 6 unit XRD pelbagai jenama.

Gambar 11: Sesi lawatan ke University of New South Wales, bersama dengan Assoc. Prof. Marioan dan Assoc. Prof. Moran, Pengarah Mark Wainwright Analytical Centre.