

Day 1: Forum 1

Acknowledgement of Women in Science, Engineering and Technology in Innovative Nation Building

SUB-COMMITTEE ON WOMEN ENGINEERS



by Ir. June Lau Yuk Ma

THE Organising Committee of WiSET 2012 would like to express its heartiest gratitude and appreciation to the Forum Chairperson, Prof. Dr Phang Siew Moi, FASc, Academy of Sciences Malaysia (ASM); Director of the Institute of Ocean and Earth Sciences, University of Malaya (UM), and to the Forum Speakers: Dr Khin Than Yu, Myanmar Engineering Society, Pro Rector of Yangon Technological University; Y.Bhg. Dato' Puteh Kamariah, Managing Director of Green Building Development Sdn Bhd and proprietor of Puteh Kamariah Architect, Malaysia; Engr. Valerie Ifueko Agberagba, Vice President of the Nigerian Society of Engineers (Nigeria); Cik Sharifah Zaida Nurlisha bt. Syed Ibrahim Al-Jamalullail, General Manager of Project Management Services in MMC Oil and Gas Engineering Sdn Bhd; and Cik Rosfinah Ab. Kadir, Chief Executive Officer (CEO) of PETRONAS Chemical Ethylele Sdn Bhd and Polythylele Malaysia Sdn Bhd, for contributing their valuable time to share their core attributes for success in their respective fields and in offering their full support to achieve the objectives of WiSET 2012.

Also, the Organising Committee of WiSET 2012 would like to direct a special acknowledgment and appreciation to Datuk Dr Mazlan bt. Othman, FASc Director of the United Nations Office for Outer Space Affairs (UNOOSA) and Deputy Director General, United Nations Office at Vienna (UNOV) for the pre-recorded Opening address.

The following are some significant points from Datuk Dr Mazlan's inspiring Opening Address:

- Women in Science, Engineering and Technology can play a crucial role in Nation Building as a participant or a policy maker. As a participant in any programme of implementation, it is important to identify one's niche area, work hard towards one's niche and keep one's clients at its uppermost priority. As a policy maker, the crucial attributes are the commitment to stay on top of one's field of expertise and focus on what is important.



- Women should take advantage of their policy-making position to include their perspective of family, which would assist to sustain a balanced family life in the society.
- The journey of successful life and career-building is none other than **ABC**; **A** for attitude, **B** for belief, and **C** for credibility. Cultivating a good attitude, a healthy belief and continuously adding credentials to their capacity building is the way of successful life achievement.



During the forum, Dr Khin Than Yu presented a complete perspective of the threat of global warming and climate change in Myanmar. She also elaborated on women's participation in the role of Science and Technology, which can be derived as a great support in the Missions with relevant adaptation of the policy and implementation guidelines as set by the National Disaster Preparedness Central Committee.

The Ministry of Science and Technology is striving for the required technology even at its education context as measures to address climate change, global warming and to raise awareness in coping with the threats.

Y.Bhg. Dato' Puteh Kamariah has vast experience in managing construction projects of numerous hospitals worth more than RM8 billion during her 32 years of attachment to the Department of Public Works. Dato' Puteh Kamariah began her journey in the Green Building mission, and continues to remain a strong proponent for Green Building Development in Malaysia.

Dato' Puteh Kamariah showed her study that the involvement of women in times of crisis is consistently showing an upward trend. This reflected the willingness of women to make sacrifices and their determination towards the necessity in view of national crisis and nation building.



A snapshot of the last 10 years of the 30% labour force showed that there has been a significant shift in technical roles, from low income to the intellectual income. The availability of educated women who have excelled to a higher intellectual group (such as PhD) has removed the blocks that hinder women from achieving higher positions. This has enhanced the income stream that supports the household income.

The global context of the 'Green Building Mission', from green awareness to green construction, would have great environmental, social and financial impacts. The criteria for a Green Building would include the sustainability and renewable energy strategies, efficiency of water usage, recyclable materials and resources, indoor air quality and environment, and the innovations in performance and design process. This Green approach suits the women's nurturing nature, which will attract greater participation of women in empowering and promoting the Green Building Mission.



Engr. Valerie Ifueko Agberagaba's 'straight-from-the-heart' sharing with the Women in Science, Engineering and Technology (WiSET) dwelled on the desire and determination towards problem-solving. Some of the characteristics of WiSET in acknowledging problems are to have more creative minds, be determined to resolve problems, make changes and provide a comfortable environment for all, and continue to excel. She emphasized the importance of having a clearly defined career plan, allowing one to make corrections, finding peer support in life, getting accustomed to the unwritten rules of office politics, building self-confidence, cultivating a balanced family life, as well as having the trait of resilience. Therefore, there is a need for nations to increase the involvement of women in SET.

Below are the likely challenges of WiSET identified by Engr. Valerie:

- Negative treatment or victimisation of women
- Non-involvement in critical/large projects
- Lack of training
- Economic effect
- Different salary structure (not common in Nigeria)
- Hostile work environment.

The attitudes of WiSET that have led to failure or mediocre results:

- Lack of self-confidence (e.g. not wanting to challenge unfair decisions or work practices for fear of reprisal)
- Seeking perfectionism leading to non-performance
- Easily accepting defeat
- Lack of career progression plan.

Yet, the attitudes of WiSET that help promote success:

- Extra hard work
- Great support for career growth from their respective organisations

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- Timely delivery of projects
- Healthy interpersonal relationship
- Organisational support for career growth
- *Marrying to the right person!*

Integrity is the most important attitude for success. The nation can assist WiSET to excel with the following focus:

- i. Education
- ii. Access to funds
- iii. Cost of doing business
- iv. Political protection
- v. Access to funds for growing entrepreneurs
- vi. The creation of an enabling work environment that will reduce exit from work
- vii. Exposure to IT
- viii. Removal of all obstacles to career growth
- ix. Environment that allows for family growth.



Cik Sharifah Zaida Nurlisha bt. Syed Ibrahim Al-Jamalullail enlightened the participants with her heartiest and down-to-earth sharing on the advantage of women's natural ability in multi-tasking. Enhancing and sharpening the multi-tasking skills is very interesting and fruitful. Expressing emotion is not a negative element in women. Acknowledgement of their emotions when they arise, while picking up the skills

that will help them focus on the objectives and desired results is crucial for women to succeed in Science, Engineering and Technology. This will help in decision making. Women also need to be open to the experience of stress caused by a new environment and managing the stress by being able to laugh it out, since laughter is said to be the best medicine.



Cik Rosfinah bt. Ab. Kadir reported about the downward trend in the percentage of WiSET, that is, in the universities (30%), and at work (20%), and less than (3%) of top-ranking positions. The obvious reason for the reduction is related to starting a family, which most likely contributes to the loss of the 10%. Hence, the critical decision is to take a step back and review how to manage a career and family. However,

the fact that women are great in multi-tasking and good at being detail with work do not seem to explain the statistics above. Then, are women in a complimentary or competing stage? Sometimes, women tend to be ignored, yet they continue doing many jobs behind the scene. She urged women to be brave to speak out and be visible. Keeping their heads low and quiet is not a successful attribute.

Cik Rosfinah called for awareness that a leader needs to have and be associated with, regardless of gender; the balance between pursuing results and managing people is crucial in any organisation, the balance between family and work often becomes a determining factor for women to stay in this field.



Prof. Dr Phang Siew Moi prompted the audience to give a round of applause to all the speakers for offering their insights and valuable experiences to define and uplift the journey of life, in striking a balance between career building and family life, and giving a full contribution to an Innovative Nation Building. Retaining intellectual and a cultivating lifelong career path is a continuous journey. Women need

to continue to work on the challenges, help each one another, nurture and mentor the young generation in engineering to be leaders in their own fields. This is truly crucial to acknowledge the contribution of Women in Science, Engineering and Technology in Innovative Nation Building, which currently makes up at about 30% to 50% of the population. ■