Views from the New Management Team

E³World talks to the New Management Team, Professor Koh Soo Ngee, Professor Alex Kot Chichung, Assoc Prof Tay Beng Kang, Assoc Prof Rusli and Assoc Prof Chua Chin Seng about the road forward to becoming a world class university.

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The existing EEE curriculum is well structured to achieve a balance between breadth and depth in providing students with a solid foundation in mathematics, physical sciences and electrical & electronic engineering (EEE). It also gives students a choice of being more specialized in one of the 10 EEE areas in the final year. Nevertheless, to adapt to the ever changing needs of industry and to make our students even more prepared for postgraduate studies, the School is mindful of the need to review the curriculum regularly. One possible improvement that is being considered is the enhancement of specializations by providing more coverage of technical courses in the specific areas of specialization. For example, students opting for the IC Design specialization will be required to complete 2 design modules plus 7 technical subjects so that they will be well prepared for the IC design industry. A similar approach is being considered for other enhanced specializations. In addition, some of the existing specializations may also be modified to make them more appealing to students or to encompass the latest trend in electronics engineering. For example, the Microelectronics specialization could be revamped as Microelectronics and Nanotechnology, and Control Engineering as Intelligent systems Engineering. For the broad based EEE programme, tweaking of the existing programme will also be carried out so as to make it more beneficial to students upon their graduation. In a nutshell, the flexibility of choices makes it possible for our students to pursue their passions so as to achieve their fullest potential during their undergraduate education in NTU. It also helps to meet the urgent needs of specific industries such as IC Design and Infocommunications for well trained specialists on the one hand, and generalists for the broad EEE sector on the other hand.

Working under the College of Engineering’s broad initiative of creating and nurturing an active learning environment and culture for our students, the School continues to examine the teaching approach of professors and learning habits of our students. The long term objective is to achieve the “teach less and learn more” effect. Reviews are being carried out to examine: how the use of IT technology could lead to self-learning, whether laboratory experiments and projects could be re-organised to achieve more learning objectives, could contact hours be reduced so as to give more time to students for self-learning, could the current examination and continual assessment systems be revamped so as to encourage consistent learning throughout the semesters, etc. The ultimate goal of a university education is not to teach as much as possible within the limited time, but rather to equip students with the foundation and basic concepts, ideas and skills so that they can continue to learn and acquire knowledge on their own after their graduation. It should also be used to nurture interests or to create passion in electrical and electronic engineering among the students. The ultimate goal would be to produce engineers who continue to hone their engineering and problem solving skills to meet the ever changing needs of industry so as to contribute very significantly to the economic development of Singapore. Some of these graduates are also expected to become leaders in research and technology development and innovation at the global level. When our alumni are well known internationally as leaders in their respective fields, we know that we have arrived.

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