New A*Star Sponsorship Schemes For Postgraduate Study By Research

The Agency for Science, Technology and Research (A*STAR) held a briefing on Wednesday, 28 August 2002 in Nanyang Technological University to introduce two new sponsorship schemes. The schemes are specially developed for Engineering students and serve to encourage more Singaporeans to embark on postgraduate research programmes, to the Doctor of Philosophy (Ph.D.) level, in pursuit of a career in research & development. This is in line with Singapore’s aim to nurture its critical pool of local research talent.

The 2 schemes are A*Star Pre-Graduate Award (PGA) and A*Star Graduate Fellowship (GF). The PGA scheme encourages final year undergraduate students with potential to undertake postgraduate training upon graduation whereas the GF scheme hopes to attract graduates who are contemplating joining the workforce to pursue postgraduate training instead. Under the GF scheme, A*Star will pay the incumbent an equivalent market salary for an entry-level honours graduate, to pursue full-time research and study. The PGA scholar will receive a stipend of $750 per month plus full tuition fees subsidy during his/her final year of undergraduate study and the GF scholar a stipend of $3,000 per month plus full tuition fees subsidy during his/her final year of undergraduate study and the GF scholar a stipend of $3,000 per month plus full tuition fees subsidy during his/her final year of undergraduate study.

Applicants interested in the GF scheme can visit the following website for more information.

http://www.ntu.edu.sg/Registrar/postgraduate/research/graduate_fellowship.html

IC Design Scholarship Programme

The School of EEE, in conjunction with the EDB and IC Design Companies, launched the IC Design Scholarship Programme on the 6th of August 2002 with a Roadshow. The programme is opened to students who are interested to specialize in the field of IC Design. Under the programme, the students are required to take prescribed IC Design modules as stipulated by the University during the course of study. These prescribed modules cover important areas of IC design, both in theory and practice, and will equip the candidates with knowledge in both analog and digital IC design. Sponsored candidates are also required to take Final Year Projects in IC design, which can be initiated by the industry or by the academic staff of the University to further develop them with the necessary hands-on knowledge and experience.

The candidates will also be attached to the sponsoring companies for a 6 month Industrial Attachment during the 3rd year of study. The IC Design companies will provide the full sponsorship of the candidates’ final year course fees and a monthly stipend. Sponsored candidates will work with the sponsoring company upon graduation. A total of 7 companies have embarked on this programme, offering about 60 scholarships, which cumulatively amounts to about S$720,000, over the next 3 years.

The participating companies are as follows:

1. Advanced Micro Devices (Singapore) Pte Ltd
2. Agere Systems Singapore Pte Ltd
3. Broadcom Singapore Ptd Ltd
4. Infineon Technologies Asia Pacific Pte Ltd
5. Matsushita Semiconductor Singapore Pte Ltd
6. Motorola Electronics Pte Ltd
7. Philips Semiconductors Asia Product Innovation Centre

According to a Straits Times report (Aug 5, 2002), IC design occupies the top-end of the semiconductor value chain and is less vulnerable than chip manufacturing activities to companies relocating because of cost issues. IC design is also a higher value-added activity. According to industry estimates, each chip designer chalks up US$200,000 (S$252,000) in value added, way above the average US$120,000 per worker in a foundry or semiconductor plant.

Interested companies and students who would like to participate in this programme can approach the programme manager for more details.

Assoc Prof Vincent Ong
Email: eongjk@ntu.edu.sg
Tel: 6790-4708

Formation of Photonics Research Center (PhRC)

The Photonics Research Group in the Division of Microelectronics was formed in 1994 and has been recognized for its active contributions to the development of the photonics industry in Singapore and globally through training, research and consultancy. Photonics is recognized worldwide as an enabling technology in the 21st century covering a broad spectrum of applications from biomedicine, information technology and telecommunication to microelectronics. As of Oct 2002, the Research Group comprises sixteen (16) academic staff, twenty-five (25) research staff, twenty-five (25) research students and ten (10) supporting technicians. Since its formation in 1994, the Photonics Research Group has secured research funding of more than S$20M. Currently the group has fifteen (15) on-going research projects with an aggregate funding of S$11M. The Research Group has been actively publishing research findings in various learned international journals and has filed numerous patents. The group's innovation in research has led to two spin-off companies: Inventive Fibre Pte Ltd was set up to commercialize innovative and differentiated fiber-optic sensor technologies for structural health monitoring applications, and DenseLight Semiconductors Pte Ltd to commercialise semiconductor-based devices for the telecommunication industry.

In addition to research, the group also has programmes to help develop the manpower needs for the photonics industry through its offerings of undergraduate and postgraduate courses in photonics. The undergraduate courses in photonics include the final-year specialization in photonics. With support from EDB, we will, from July 2003, offer a Master of Science in Photonics to help train more engineers, scientists and technologists in photonics.

With the growth of the Photonics Industry worldwide, the School of EEE recognizes the significant contributions that the Photonics Research Group have made and as of Nov 2002, have formalized the setting of the Photonics Research Centre. The Centre aims to be a centre of excellence in Photonics both in training and research in three (3) main programmes. The three programmes are (1) Optical Communications, (2) Photonics Materials and Devices, and (3) Biophotonics. Biophotonics is a new initiative by the Centre to exploit the application of photonics technologies to life sciences.