IC Design Scholarship Programme

The School of EEE, in conjunction with the EDB and IC Design Companies, launched the IC Design Scholarship Programme on 15 February 2006 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 their 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 six month Industrial Attachment during the third year of study. EDB, together with 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 eight companies have embarked on this programme, offering about 100 scholarships, which cumulatively amounts to about S$1.3 million, over a period of three years.

The participating companies are as follows:
1. Broadcom Singapore Pte Ltd
2. JAM Technologies Pte Ltd
3. Marvell Asia Pte Ltd
4. MediaTek Singapore Pte Ltd
5. OZ Micro Pte Ltd
6. Panasonic Semiconductor Asia Pte Ltd
7. ST Microelectronics Asia Pacific Pte Ltd
8. Volterra Asia Pte Ltd

According to a Straits Times report (5 August 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 ($352,200) 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.

EEE, NTU-Wafer Fabs Research Scholarships for Nano-scale CMOS Device and Process Technology

Leveraging on a recent joint collaborative effort with the local semiconductor industry, the Center for Microelectronics in EEE, one of the Centers in the Nanocluster, has further strengthened its Graduate Research Scholarship Program with Chartered Semiconductor Manufacturing and Silicon on Systems Manufacturing Company Pte Ltd (SSMC) in Singapore. Together with Economics Development Board (EDB) of Singapore, a total research grant of close to S$3.1M is channelled to train at least 9 PhD and 23 MEng students over the next 5 years. In addition, both companies provide a total amount of S$2.8M for support in-kind. This scheme is open to all qualified NTU graduates who are interested to pursue graduate research in areas related to nanoscale silicon-based devices and process technologies.

In the Chartered-NTU research scholarship program, a joint collaboration among Chartered Semiconductor Manufacturing, Nanyang Technological University and Economic Development Board of Singapore (EDB) offers 18 research scholarships to qualified candidates to pursue their postgraduate studies at MEng level with an option to convert to a PhD research later. In the PhD research collaboration, the Chartered-NTU research program offers 9 research scholarships for qualified candidates. Similar collaborative program between SSMC and NTU has been established for 5 candidates to pursue their research at MEng level, with an option to convert to PhD as well.

Graduate students working under this scheme receive extensive in-house training and are given maximum exposure to work on state-of-the-art wafer fabrication processes and equipment either in Chartered Semiconductor Manufacturing or Silicon on Systems Manufacturing Company. Other benefits include travel supports to present research findings at International Conferences in overseas. In the Chartered-NTU scheme, students are given opportunities to attach to overseas universities/research institutes or alliance partners such as IBM in US for a semester. Students who graduate from this program will be offered positions in the respective companies which best suit their background and interests.