Gearing up for a tech-savvy future

NUS Institute of Systems Science’s Graduate Diploma in Systems Analysis course equips non-IT professionals for an IT career

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DESPITE the constantly evolving scene in the field of information technology (IT), there is a strong demand for people specialising in this sector.

That is why the Graduate Diploma in Systems Analysis programme, offered by the Institute of Systems Science (ISS) at the National University of Singapore (NUS), is still relevant today.

Launched in 1981, ISS saw its 39th intake graduate in November last year.

The school constantly revamps its syllabus and gets inputs from companies in the IT industry to keep its curriculum relevant and up to date.

The diploma is made up of a 13-month full-time programme, of which five months are devoted to an industrial attachment.

Gain latest IT knowledge

Says Dr Esther Tan, the programme’s chief: “The graduate diploma programme is very unique. It transforms someone without IT knowledge into an IT professional in a very short period of time.”

“The people feel they have lost touch with their IT knowledge can also join this programme as a refresher course, where they will be updated with the latest IT knowledge.”

To date, the institute has seen over 2,300 graduates out of this programme in the 34 years of its history.

To encourage more people to further develop their skills and upgrade their academic credentials, this year, the Singapore Workforce Development Agency (WDAs) rolled out the SkillsFuture mid-career subsidy for people aged above 40.

This also applies to those who want to pursue the ISS graduate diploma course.

Here, students spend seven months in intensive training, in the form of lectures, workshops and projects. Then they work in teams for a month to develop an application.

The last five months are spent applying what they have learnt as interns — working on real projects in companies across various industries including healthcare, IT, finance and government.

Real-life scenarios

“ISS works closely with industries and companies that need IT solutions by providing them with trained personnel,” says Dr Tan.

“Throughout the internship, students gain real-life experience as IT professionals, and companies are able to prototype advanced technologies they would like to explore,” says Dr Tan.

“Sometimes, companies use the internship programme to scout for potential employees and may even offer the interns a job after they graduate,” she adds.

Since 1988, Accenture, a global management consulting, technology services and outsourcing company, has been awarding the best internship teams for each intake with a $250 and a commemorative plaque.

The latest batch of students from the 39th intake had two winning teams.

They developed an “mDirectory” for Integrated Health Information Systems, a healthcare IT company, and testing automation for on-board bus equipment for the Land Transport Authority.

A member of the judging panel, Ms Ng Wei Wei, Accenture’s managing director for health and public services, ASEAN, says: “There have been technological advances in the last few years, and it is evident in the kind of projects that each batch of students gets involved in — very digital-related, from mobility to e-commerce. The students get to solve real-life issues and contribute directly to businesses.”

“I think the most impressive quality of the interns is their versatility.”

“Many of them are asked to pick up new skills and new computing languages as they embark on their internship programme.”

“Grounded in the skills they have learnt from the graduate diploma programme, many excel in displaying their resourcefulness and initiative by picking up other skill sets required.”

A new line of work

Mr Roy Loo Sahagun, 48, successfully completed the programme in 2010, switching from his previous career as an engineer to become an IT professional.

Entering a different field required new skills and knowledge, which posed a challenge for him.

He says: “Initially, it was difficult for me to grasp the concept of object-oriented language as it was new to me.”

“However, through discussions with instructors and classmates, and through reading sample codes and writing codes myself, I gradually understood them better.”

“The lecturers will give you a project but they give full freedom in deciding how to realise the project. This way, you will learn to be resourceful in order to complete the assignment.”

The graduate diploma opened doors for Mr Sahagun. He received an offer to continue working at the Data Storage Institute, a research institute of the Agency for Science, Technology and Research (A*Star), where he had interned.

There, he developed a working prototype of an intelligent network storage system, which was inspired by how the human brain works.

After spending two years there, he took up a new role at Motorola Solutions Singapore as a solutions architect manager.

Currently a project manager of the intelligent transportation system at the Nanyang Technological University, he leads network planning, design and implementation of an end-to-end smart mobility test bed that will cover the entire campus.

He plans to further his studies next year by taking a master’s degree in IT.

“Never stop learning and take all the opportunities available to gain more knowledge and skills,” he says.

Mr Sahagun switched from his previous job as an engineer to become an IT professional after completing his Graduate Diploma in Systems Analysis programme at ISS. PHOTO: CHENG JIN (LANG, NS-05-63)