ALL her life, 21-year-old Noorshahidah Md Noordin took trains to and from school, but it was a six-month industrial attachment with ST Electronics last year that opened up her eyes to how everything came together to ensure a safe ride.

She had helped the SMRT engineers with the wiring of the half-height platform screen doors, and preventing short circuits.

She admits that, until then, she had been going through the motions while studying for her electrical engineering diploma at Ngee Ann Polytechnic. It was only at that point that the penny dropped.

“I came to realise that engineering is what I want to pursue and do for a living,” said Ms Shahidah, the youngest of three daughters. Her mother is a housewife and her father works in a warehouse.

Ms Shahidah first attended junior college and considered a career in the pharmaceutical industry, but dropped out after the first year.

She did not do well there, and preferred the flexible hours and hands-on learning that the polytechnic offered.

“My parents were disappointed but it made me even more determined to do well. I figured electrical engineering would give me good career prospects,” she said.

Now, she is in the first batch of students studying for Singapore’s first undergraduate degree in electrical power engineering, jointly offered by the Singapore Institute of Technology (SIT) and Newcastle University (NU).

It is targeted primarily at polytechnic graduates, who complete the degree within two years. There are almost 70 students in the first batch, just under a third of whom are women.

Power engineering is typically offered only at the graduate (master’s) level, with only selective modules covered at the undergraduate level. The SIT-NU course covers the principles of generation, transmission and distribution of electric power, and also teaches business and management techniques needed in engineering projects.

The curriculum, developed in collaboration with the Energy Market Authority, has been validated by the industry and aims to prepare young people to tackle Singapore’s upcoming energy challenges and make the best use of emerging opportunities such as new technologies and energy sources.

It is estimated that the power sector requires about 2,400 new professionals over the next decade and this degree programme will complement other manpower-building initiatives.

Ms Shahidah dreams about designing power circuits and of someday being an entrepreneur within the power sector.

“I know now that this is what I want to do,” she said.