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SP, Shimadzu to prepare for digitalisation by 2020

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Singapore – To better prepare laboratory analysts and technicians for future roles in a digitalised laboratory, Singapore Polytechnic (SP) and Shimadzu Corporation, manufacturer of analytical instruments and medical systems, will co-deliver training programmes at the newly launched SMARTLab (Scalable, Manageable, Automated, Regulated and Total-Compliant Laboratory), which is located in SP.

This initiative marks the first and only platform for companies in the energy and chemicals sector to prepare for digitalisation of their laboratories. This is also in response to the Energy & Chemicals Industry Transformation Map which aims to have 20 Energy and Chemicals (E&C) plants, including all refineries and crackers, adopt advanced manufacturing technologies by 2020.

The SMARTLab@SP simulates the future digitalised laboratory. It will have state-of-the-art laboratory instruments that are managed by IoT (Internet-of-Things) and serves as a learning space for laboratory technicians to learn about laboratory informatics and the use of modern analytical instrumentation.

Boosting capabilities in the sector

The first of its kind SMARTLab@SP will kick-start training programmes for up to 20 laboratory technicians from the first quarter of 2019. The first of the series is Laboratory Informatics, a bite-sized module that will train workers on how to operate analytical instruments with total compliance, leverage advanced systems to manage data and automation, understand connectivity of instruments, and adopt disruptive technology to manage a paperless laboratory.

This one-day introductory course will comprise classroom and practical sessions co-conducted by facilitators from SP and Shimadzu. Trainees will complete the course with a Certification of Completion awarded by both SP and Shimadzu. The subsequent modules will touch on topics including Laboratory Informatics Management Systems, Machine-to-Machine and Artificial Intelligence, which will eventually lead to professional certifications and fully professonalise the laboratory

technicians. This initiative provides laboratory technicians with exposure to automated, compliant laboratories, and upskills the workforce to enable them to handle higher value tasks as Singapore transforms into Industry 4.0.

Besides laboratory technicians, students from SP's Diploma in Applied Chemistry and Diploma in Perfumery and Cosmetic Science will also benefit from analytical instrumentation training at the SMARTLab@SP. The training will be part of the practicum of modules such as Laboratory Management, Instrumental Analysis, and current Good Manufacturing Practices (cGMP). The exposure to the latest technologies in the sector will equip students with emerging skills by the time they enter the future workforce.

Mr Prem Anand, Executive Officer and Senior General Manager, Shimadzu (Asia Pacific) Pte Ltd, said, "We are launching this SMARTLab as a reiteration of our support towards the scientific ecosystem in Singapore. The country is taking substantial efforts to become even more smarter by implementing the "Smart Nation" programme. Shimadzu is a global leader in providing state-of-the-art innovations and technologies and it is our responsibility to help all laboratories in Singapore to become SMARTLabs in accordance with our philosophy of 'Contributing to Society Through Science and Technology'."