Laboratory information management system- an overview

Dr. Ashok Gnanasekaran
Associate Professor, Department of Microbiology, Faculty of Medicine
Director, Centre for Infectious Diseases and Phytochemical Studies
Quest International University, Perak, Malaysia

Digitalization is revolutionizing the technology-driven. Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities. Profiting from digitalization requires business model innovation such as making the transition to advanced service business models. If we look at a typical production process, for instance, the level of automation and optimization that has permeated into the production floor is quite astounding. Many industries have had a tremendous impact in bringing to the market the automation and optimization solutions to streamline -the production floor. The other ends of the spectrum are the back-office transaction oriented processes like Inventory Management, Materials Management, Financials and so on, therefore a lab's ability to process data quickly and its ability to disseminate that information efficiently throughout the plant is vital for the success of the production process. A LIMS or laboratory information management system is a type of software designed to improve lab productivity and efficiency, by keeping track of data software that allows you to effectively manage samples and associated data to improve lab productivity.

Digital transformation propels laboratories to make a shift from a paper-based system to an automatic information management system. When selecting or developing a LIMS, a laboratory should be clear on why the system is needed and what workflow and business functions it must support. Keeping the installation simple in scope, design, and, most importantly, the user interface will help ensure success. As the laboratory's business changes over time, so must it's LIMS, and continued investment in information management must be expected. In this presentation, we will discuss more on the effective LIMS provide solutions for sample management, test execution, integration, connectivity & validation and also help the world during the Covid Management.