TRAINING PROGRAM

Laboratory System Integration between LISM & ERP SAP

Introduction:

The Use of Computers for Laboratory Automation addresses the fundamental concepts in computer engineering, software engineering and automation. It places the emphasis on principles of operation rather than on `product specific' details, which makes it independent and to a large degree `future-proof'. Particular attention is given to Laboratory Information Management Systems (LIMS) and the associated verification and valuation of computers in regulated (GLP) & ISO 17025.

Who Should Attend?

The course creates for chemists, laboratory technicians, instrument engineers, supervisors. Senior Specialist LIMS who works in laboratory.

Certificate:

BTS certificate will be issued to all attendees completing minimum of 75% of the total tuition hours of the WORKSHOP.

Course Objectives:

The Use of Computers for Laboratory gives participants sufficient knowledge of computer systems and automation to enable them to read, and evaluate critically, technical literature and system specifications, thereby allowing the active participation in the selection, implementation, use and maintenance of computer systems in laboratories.

Course Outline:

- Introduction
- Chemical Laboratory
- Laboratory Management
  - ❖ Principle of Leadership
  - ❖ Management Functions
  - ❖ Managerial problem Solving and Decision Making
  - ❖ Human resource Management (HRM)
  - ❖ Interactive Communication Skills
  - ❖ Fundamentals of Financial Management
  - ❖ Laboratory accreditation requirement
- Laboratory Data Analysis
  - ❖ Evaluation of analytical data
  - ❖ Interpreting laboratory analysis test results
  - ❖ Correction of errors and improving accuracy
  - ❖ Statistical Laboratory Data Analysis
  - ❖ Traceability of data results
  - ❖ Calibration of laboratory equipment

- ❖ Quality Control and Quality Assurance

- Laboratory Data store and management
- Laboratory Computerized
  - ❖ Computer Components and Design Considerations
  - ❖ Data Transfer/Instrument Interfaces
  - ❖ Computerized control of an instrument or analyzer
  - ❖ Computerized access to scientific information
  - ❖ Automation of analytical instrumentation
  - ❖ Computer network (WAN, LAN)
  - ❖ Computerized configurations (workstations)
- Laboratory Information Management System LIMS
  - ❖ Laboratory Data Organization and Storage
  - ❖ Introduction to information systems
  - ❖ Structural Information Management
  - ❖ LIMS development and Functionality
  - ❖ Why Implement a LIMS?
  - ❖ Who and why needs LIMS?
  - ❖ Goals of LIMS for Overall Organization and Laboratory
  - ❖ Are Your LIMS Goals Realistic?
  - ❖ LIMS functionality and differences between and within Organizations
  - ❖ Architectural Different Model of a LIMS
  - ❖ Impact of a LIMS on the Laboratory
  - ❖ Common Misconceptions for LIMS
  - ❖ Technologies of LIMS Life-cycles and development
  - ❖ The LIMS Assessment, Needs, Approval, and Evolution
  - ❖ LIMS approval & Costs
  - ❖ Application for LIMS
  - ❖ LIMS, SCADA & ERP
  - ❖ Why ERP & SAP Quality management
  - ❖ SAP & ERP Software package
  - ❖ LIMS, SAP & ERP Integrated modules