

**Value Added Course Details**

**Coursed Offered by the department**

<b>S.No.</b>	<b>Coursed Offered</b>	<b>Credits</b>
1.	Lab view certification by NI	1
2.	Certification in Embedded Software Development	1
3.	Certification in Creo/ANSYS	1
4.	Industrial automation certification	1
5.	Any other certification from MNCs	1
6.	Participation in international exhibition / Seminar / fair	1
7.	Online Course Certification from edx, Coursera, etc.,	1
8.	Certification in SAP – ERP Software	1
9.	Certification in Six Sigma Belt	1
10.	PLC, HMI, SCADA	1

**Course Description  
(Write-up required for each course)**

**1.Lab view**

LabVIEW is an integrated development environment designed specifically for engineers and scientists building measurement and control systems. With a native graphical programming language, built-in IP for data analysis and signal processing, and an open architecture that enables integration of any hardware device and any software approach, LabVIEW is the software needed to build the optimal solution that can meet your custom requirements and solve the challenges at hand.

**2. Embedded system**

An embedded system is some combination of computer hardware and software, either fixed in capability or programmable, that is specifically designed for a particular function. Industrial machines, automobiles, medical equipment, cameras, household appliances, airplanes, vending machines and toys (as well as the more obvious cellular phone and PDA) are among the myriad possible hosts of an embedded system. Embedded systems that are programmable are provided with programming interfaces, and embedded systems programming is a specialized occupation.

### **3. Creo**

Creo is a family or suite of design software supporting product design for discrete manufacturers and is developed by PTC. The suite consists of apps, each delivering a distinct set of capabilities for a user role within product development. Creo runs on Microsoft Windows and provides apps for 3D CAD parametric feature solid modeling, 3D direct modeling, 2D orthographic views, Finite Element Analysis and simulation, schematic design, technical illustrations, and viewing and visualization.

### **4. Industrial automation**

Industrial automation is the use of control systems, such as computers or robots, and information technologies for handling different processes and machineries in an industry to replace a human being. It is the second step beyond mechanization in the scope of industrialization.

### **5. Six Sigma**

Six sigma is a set of techniques and tools for process improvement. It seeks to improve the quality of the output of a process by identifying and removing the causes of defects and minimizing variability in manufacturing and business processes. It uses a set of quality management methods, mainly empirical, statistical methods, and creates a special infrastructure of people within the organization who are experts in these methods. Each Six Sigma project carried out within an organization follows a defined sequence of steps and has specific value targets, for example: reduce process cycle time, reduce pollution, reduce costs, increase customer satisfaction, and increase profits.