



## Professional Postgraduate Program in Enterprise Resource Planning Systems (PPGP-ERP)

(Autonomous, full-time, 11 months, residential Program  
in association with **ETH Limited**)



Enterprise Resource Planning (ERP) was the buzzword that yielded space to customer relationship management and supply chain management in the late nineties. These days, even though Service-Oriented Architecture is top-of-mind, ERP is back in a new avatar. It is focused on the small and medium business segment, more customized and targeted at micro-verticals - where it is industry specific and not process driven. The interesting fallout of these changes is that they are throwing up more opportunities for mid-sized local ERP vendors.

The requirements of each company differ in terms of standard industry practices and their own unique practices. Hence there is greater demand for componentized solutions with standard modules and specific functionality to address the unique processes. A new way of doing business would entail using fast, accurate information to plan operations and processes, delivering dissimilar features to those delivered by competitors, enhancing client service, empowering employees and reacting instantaneously to changes in the marketplace.

Apart from manufacturing, the traditional user of ERP, the services sector is also taking to ERP. Banks and other financial institutions are buying ERP in a big way. The small and medium enterprises (SME) are another sector fuelling the growth of the market. Another area which offers growth potential is e-governance. The Global ERP Market is expected to grow to more than 100 billion USD. The leading players such as SAP, Oracle, Microsoft, BaaN, People Soft, Ramco Systems are likely to continue to dominate the ERP market.

## Distinctive Features

- Understanding End-to-End business process integration of the enterprise
- Process flows through which business data moves across the enterprise
- Enterprise Integration with the external business ecosystem
- Industry segment approach of Enterprise Resource Planning
- Change Management concepts
- Live ERP implementation Project exposure

## Eligibility

Graduates with a Bachelor's Degree in Engineering / Technology in Electronics / Communications / Computer Science / Information Technology / Electrical / Instrumentation / BBA / BCA / BIT / M.Tech. / M. Sc. / M. Com. / MBA or equivalent qualifications with relevant experience.

## Basic Courses:

**CS001 / CS002 / CS003 Life Skills Development – I / II / III (Each 20 Hours):** The Life Skills Development Program prepares students for communication and interaction in an organizational set-up. The focus would be on grammar, vocabulary, spoken English, remedial English, presentation skills, debates, group discussions, team building, time management, cross-cultural communication, creative and business writing. The ultimate objective of this course is to develop individuals with high intelligence and emotional quotients who are also competent speakers of English. At the end of the Life Skills Development Program the students would be well equipped with language skills, soft skills and life skills to enter the challenging corporate world.

## Bridge Courses:

**ERP102 Introduction to General Management (15 Hours):** The course aims at providing knowledge to the students about the major functions of management in an organization and the skills required in the areas of Planning, Organizing, Leading and Controlling. However, the four functions are actually highly integrated when carried out in the day-to-day realities of running an organization.

**ERP102 Introduction to ICT Industry (15 Hours):** This course aims at improving students understanding of how the Information and Communication Technologies (ICT) contribute to sustainable growth in business and social well being. The evolution, advancement and the trends in the ICT industry with respect to technologies are discussed.

**ERP103 Introduction to Database Technologies (15 Hours):** This course focuses on the role of database systems in information management and the theoretical and practical issues that influence the design and implementation of database management systems and languages. The entity-relationship modeling, normalization of data and SQL to create, update, modify and query a database are discussed.

**ERP104 Introduction to Application Development Technologies (15 Hours):** This course delivers the knowledge and skills required to use JAVA and Microsoft Technologies to develop efficient IS applications. It focuses on various Technology features, database connectivity in writing networked applications.

## Foundation Courses:

**ERP501 Organizational Design and Processes (15 Hours):** This course focuses on organizational design; organizational change processes due to organizational development; skills and competencies in the diagnostic processes for assessing the need for change and the development, implementation and evaluation of change strategies at all organizational levels.

**ERP502 Management Information Systems (15 Hours):** The course focuses on the principles of business information processing and the role of information systems in contemporary organizations. The various MIS processes in an organization and the role of support system tools like OLTP, OLAP, DSS, ES, and EIS are discussed.

**ERP503 Strategic use of ERP systems (15 Hours):** This course focuses on the strategic features of ERP systems and how these features can be utilized. Many large organizations have implemented Enterprise Resource Planning Systems to integrate their business processes and are now attempting to gain further benefits by utilizing the strategic features of these systems such as supply chain optimization, customer relationship management and data warehousing.

**ERP504 Choosing an ERP System (15 Hours):** This course focuses on the various aspects and issues an organization needs to consider and evaluate before choosing an Enterprise Resource Planning (ERP) system. It is not an easy task. ERP systems are complex pieces of software which manage many components of a business, and finding the right package can be a minefield. Still, there are some pointers which can make the job easier. The choice of an ERP package can be made using either industry specific criteria or functional criteria, or a mixture of both. There is also budget to pay attention to while choosing an ERP system.

**ERP505 Evaluating ERP Investments (15 Hours):** The intangible or non-financial benefits of an integrated enterprise resource planning (ERP) system can be viewed from several perspectives. This course focuses on how an organization gets benefits for accounting, product and process design, production, sales, and management information system (MIS) functions. From the overall company standpoint, ERP provides a framework for working effectively together and providing a consistent plan for action

**ERP506 Enterprise Financial Systems (20 Hours):** This course focuses on the various aspects of the financial systems of an enterprise, such as revenue and expenditure, assets management, cost management, criteria and approval procedure for expenditure, internal control and audit.

**ERP507 Business Process Engineering (30 Hours):** This course focuses the strategic and organizational issues of process and workflow management and the use of Enterprise Resource Planning Systems to realize efficient processes. IT is a useful tool in business process change and modeling the business processes, redesign, altering business processes and reengineering in order to extract maximum benefits out of the ERP products. The subject describes the major strategic approaches, process modeling techniques, procedure models and the current possibilities of ERP software that are likely to encounter in identifying, reorganizing and implementing processes in a typical business organisation.

**ERP508 Enterprise E-Commerce (15 Hours):** This course focuses on the integration of Enterprise Resource Planning Systems with E-Commerce and the issues involved. Many large organizations have implemented Enterprise Resource Planning Systems to integrate their business processes. These organizations are now attempting to extend their supply chain via E-Commerce business solutions. The main objective is to prepare the students with the necessary concepts and skills needed to lead the development of e-business strategies and initiatives in an organization.

#### **Core Courses:**

**ERP601 Enterprise Resource Planning-I with SAP'S SD, MM, HR Modules (140 Hours):** This course focuses on understanding the concept of integrated functionalities of various business modules of ERP and their inter relationships in an organization. The managerial and technical issues in planning, designing, implementing extended enterprise systems and technologies will be discussed. This course will enable the students to have hands-on exposure in configuring and running SD, MM and HR modules of SAP with basic and core functions for modeling and mapping business processes.

**ERP602 Supply Chain and Logistics Management (30 Hours):** This course focuses on the concept of supply chain management in the context of movement and storage of components and goods in the spheres of material management, physical distribution and transport and its practical business application with integrated functionalities of an ERP system.

**ERP603 Organization Change Management (20 Hours):** This course focuses on the understanding of change management concepts, tools used in change management, methodology adopted to manage change and followed by various industry tracks offering case study and finally allowing the students to present the case studies on their respective industry tracks.

**ERP604 Enterprise Wide Integration within Organization (20 Hours):** This course focuses on process flows, Process integration. Strategic and operational Planning and related financial aspects, integrated flow of planned data to ensure same base of planning across enterprise, sales and operational planning and as well as Financial and Human Resource Planning using different tools and operational flow of data across the enterprise.

**ERP605 Project Management as per PMBOK (30 Hours):** This course introduces the fundamentals of project management using both concept and application. Project management, application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project will be discussed using a generic Information Technology Project Methodology. The nine areas of the Project Management Institute's Project Management Body of Knowledge (PMBOK) will be discussed.

**ERP606 Comparative Study on Global ERP Products, Cases and Seminar (20 Hours):** Students are required make a comparative research analysis report based upon the various case discussions on the global ERP products and present a seminar on their findings.

#### **Advanced Courses:**

**ERP701 Enterprise Resource Planning-II using SAP's FICO and PP Modules and ABAP Programming Language (140 Hours) :** This course will enable the students to have hands-on exposure to configuring and running FICO and PP modules of SAP with basic and core functional processes. Students will also get exposure on using ABAP/4 for customization of SAP implementation project.

**ERP703 ERP System Implementation Methodologies (20 Hours):** The basic methodologies, techniques and tools that are being used in the implementation of Enterprise Resource Planning Systems using SAP R/3 as an example. Many large organizations are making decisions to implement Enterprise Resource Planning Systems but the implementation is complex and requires specific project management skills and knowledge.

**ERP704 ERP Ecosystems with CRM & SRM (30 Hours):** This course focuses on the concept of ecosystems developed due to implementation of an ERP system in an organization and their impact on the various stakeholders. It focuses on the extended enterprise applications in the areas of Customer Relations Management (CRM) and Supplier Relationship Management (SRM). This course is designed to give students a systematic exposure on strategic and technological issues in business-to-business (B2B) electronic commerce.

**ERP705 Data Warehousing and Enterprise Business Intelligence Systems (30 Hours):** This course focuses on the basics characteristics of Data Warehousing and how it differs from an OLTP database. It introduces different components of DW-ETL, Database, Metadata and OLAP and presentation and query tool used in DW for building intelligence systems.

**ERP706 Building Controls in the ERP Environment (15 Hours):** The course focuses on costs and benefits; selection and design and implementation of ERP systems. There will be a strong focus on appropriate design of control systems. The course will cover the design of computerized control systems from an IT perspective. It will focus on building an understanding of the COBIT control

framework within a practical environment. Different case studies to analyze the nature of the control environment will be discussed.

**ERP707 Auditing ERP Systems (15 Hours):** This course focuses on selected aspects of the use, risk, control, and audit of ERP Systems. As business processes become increasingly automated, so too the need to ensure the integrity, confidentiality and availability of the supporting information systems. Theory and practice of information systems auditing; role of information systems auditor in systems development and computer based system controls are discussed in the course.

**Project:**

**ERP801 Project (430 Hours):** Students will be given industry sponsored projects by ETH for implementing Open source ERP using Compiere or SAP Project based upon their background. The students can also take-up the in-house projects under the guidance of the faculty and/or Industry experts in their area of expertise. Students are encouraged to work on projects that will enhance their understanding in certain ERP application and technology domains in real-life scenario. The project report has to be submitted to the Institute in the prescribed format, which will be examined by experts nominated by the Institute. The project is the culmination of the student's learning in the institute and is expected to be of high standards as demanded by the industry.

Program Structure			
Level	Subject Code	Subject Name	Hours
Basic	CS001	Life Skill Development – I	20
	CS002	Life Skill Development – II	20
	CS003	Life Skill Development – III	20
Bridge	ERP101	Introduction to General Management	15
	ERP102	Introduction to ICT Industry	15
	ERP103	Introduction to Database Technologies	15
	ERP104	Introduction to Application Development Technologies	15
Foundation	ERP501	Organizational Design and Processes	15
	ERP502	Management Information Systems	15
	ERP503	Strategic use of ERP systems	15
	ERP504	Choosing an ERP System	15
	ERP505	Evaluating ERP Investments	15
	ERP506	Enterprise Financial Systems	20
	ERP507	Business Process Engineering	30
	ERP508	Enterprise E-Commerce	15
Core	ERP601	Enterprise Resource Planning-I (SAP'S SD, MM, HR Modules)	140
	ERP602	Supply Chain and Logistics Management	30
	ERP603	Organization Change Management	20
	ERP604	Enterprise Wide Integration within Organization	20
	ERP605	Project Management as per PMBOK	30
	ERP606	Comparative Study on Global ERP Products, Cases and Seminar	20
Advanced	ERP701	Enterprise Resource Planning-II (SAP's FICO and PP Modules and ABAP Programming Language)	140
	ERP702	ERP Systems Implementation Methodologies	20
	ERP703	ERP Ecosystem (CRM and SRM)	30
	ERP704	Data Warehousing and Enterprise Business Intelligence Systems	30
	ERP705	Building Controls in the ERP environment	15
	ERP706	Auditing ERP Systems	15
Project	ERP801	Project	430
			<b>Total hours: 1200</b>