22MEHO305	PRODUCT LIFE CYCLE MANAGEMENT				
PREREQUISITES		CATEGORY	L	T	P	C
		PE	3	0	0	3

COURSE OBJECTIVES:

1.	To study about the history, concepts and terminology in PLM
2.	To learn the functions and features of PLM/PDM
3.	To develop different modules offered in commercial PLM/PDM tools
4.	To demonstrate PLM/PDM approaches for industrial applications
5.	To use PLM/PDM with legacy data bases, Coax& ERP systems

UNIT I	HISTORY, CONCEPTS AND TERMINOLOGY OF PLM	9	0	0	9

Introduction to PLM, Need for PLM, opportunities of PLM, Different views of PLM - Engineering Data Management (EDM), Product Data Management (PDM), Collaborative Product Definition Management (cPDm), Collaborative Product Commerce (CPC), Product Lifecycle Management (PLM). PLM/PDM Infrastructure – Network and Communications, Data Management, Heterogeneous data sources and applications

UNIT II	PLM/PDM FUNCTIONS AND FEATURES	9	0	0	9

User Functions – Data Vault and Document Management, Workflow and Process Management, Product Structure Management, Product Classification and Programme Management. Utility Functions – Communication and Notification, data transport, data translation, image services, system administration and application integration

UNIT III	DETAILS OF MODULES IN A PDM/PLM SOFTWARE	9	0	0	9

Case studies based on top few commercial PLM/PDM tools – Teamcenter, Windchill, ENOVIA, Aras PLM, SAP PLM, Arena, Oracle Agile PLM and Autodesk Vault.-Architecture of PLM software- selection criterion of software for particular application - Brand name to be removed

UNIT IV	ROLE OF PLM IN INDUSTRIES	9	0	0	9

Case studies on PLM selection and implementation (like auto, aero, electronic) - other possible sectors, PLM visioning, PLM strategy, PLM feasibility study, change management for PLM, financial justification of PLM, barriers to PLM implementation, ten step approach to PLM, benefits of PLM for–business, organisation, users, product or service, process performance- process compliance and process automation

UNIT V	BASICS ON CUSTOMISATION/INTEGRATION OF PDM/PLM SOFTWARE	9	0	0	9

PLM Customization, use of EAI technology (Middleware), Integration with legacy data base, CAD, SLM and ERP

	TOTAL (45L): 45 PERIODS

TEXT BOOKS:

1.	Product Lifecycle Management for a Global Market, Springer; 2014 edition (29 September 2016),ISBN-10 : 3662516330
2.	Product Life Cycles and Product Management, Praeger Publishers Inc (27 March 1989)ISBN-10 : 0899303196

REFERENCES:

1.	AnttiSaaksvuori and AnselmiImmonen, "Product Lifecycle Management", Springer Publisher, 2008 (3rd Edition)
2.	IvicaCrnkovic, Ulf Asklund and Annita Persson Dahlqvist, "Implementing and Integrating Product Data Management and Software Configuration Management", Artech House Publishers, 2003.
3.	J ohn Stark, "Global Product: Strategy, Product Lifecycle Management and the Billion Customer Question", Springer Publisher, 2007
4.	John Stark, "Product Lifecycle Management: 21st Century Paradigm for Product Realisation", Springer Publisher, 2011 (2nd Edition).
5.	Michael Grieves, "Product Life Cycle Management", Tata McGraw Hill, 2006.

	COURSE OUTCOMES: Upon completion of this course, the students will be able to:	Bloom Taxonomy Mapped
CO1	Summarize the history, concepts and terminology of PLM	Remember
CO2	Develop the functions and features of PLM/PDM	Create
CO3	Discuss different modules offered in commercial PLM/PDM tools.	Evaluate
CO4	Interpret the implement PLM/PDM approaches for industrial applications.	Analyze
CO5	Integrate PLM/PDM with legacy data bases, cax & ERP systems	Analyze

COURSE ARTICULATION MATRIX

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	0	0	0	0	0	0	0	0	2	2	1	1	0
CO2	1	1	0	0	0	0	0	0	0	0	2	2	1	1	0
CO3	1	1	0	0	1	0	0	0	0	0	2	2	1	1	0
CO4	1	1	0	0	2	0	0	0	2	0	2	2	1	1	0
CO5	1	1	0	0	3	0	0	0	2	0	2	2	1	1	0
Avg	1	1	0	0	1	0	0	0	0.8	0	2	2	1	1	0
3/2/1 – indicates strength of correlation (3 – high, 2- medium, 1- low)															