

GOVT. COLLEGE OF ENGINEERING AND CERAMIC TECHNOLOGY
DEPARTMENT OF INFORMATION TECHNOLOGY
MASTER OF TECHNOLOGY IN INFORMATION TECHNOLOGY

Name of the course:		Research Methodology and IPR	
Course Code: ITAUD 202		Semester: 2nd	
Duration: 6 months		Maximum Marks: 100	
Teaching Scheme		Examination Scheme	
Theory Contact Hrs.: 2 hrs./week		Mid Semester-1 Exam: 15 Marks	
Credit Point: 2		Mid Semester-2 Exam: 15 Marks	
		Assignment, Quiz, Presentation, term paper & class attendance: 20 Marks	
		End Semester Exam: 75 Marks (to be mapped into 50 marks)	
Objective:			
1.	To study research formulation		
2.	To study technical report writing		
3.	To study research proposal generation		
4.	To study IPR and GI		
5.	To study patent related case studies		
Pre-Requisite			
1.			
Unit	Content	Hrs	Marks
1.	Introduction: Meaning of research problem, Sources of research problem, Criteria Characteristics of a good research problem, Errors in selecting a research problem, Scope and objectives of research problem. Approaches of investigation of solutions for research problem, data collection, analysis, interpretation, Necessary instrumentations	4	15
2.	Research Problem: Meaning of research problem, Sources of research problem, Criteria Characteristics of a good research problem, Errors in selecting a research problem, Scope and objectives of research problem. Approaches of investigation of solutions for research problem, data collection, analysis, interpretation, Necessary instrumentations	6	20
3.	Technical writing: Effective technical writing, how to write report, Paper Developing a Research Proposal, Format of research proposal, a presentation and assessment by a review committee	5	15
4.	IPR: Nature of Intellectual Property: Patents, Designs, Trade and Copyright. Process of Patenting and Development: technological research, innovation, patenting, development. International Scenario: International cooperation on Intellectual Property. Procedure for grants of patents, Patenting under PCT.	5	20

5.	Patent and GI: Patent Rights: Scope of Patent Rights. Licensing and transfer of technology. Patent information and databases. Geographical Indications	6	15
6.	Case study: New Developments in IPR: Administration of Patent System. New developments in IPR; IPR of Biological Systems, Computer Software etc. Traditional knowledge Case Studies, IPR and IITs.	4	15
Course Outcome:			
After completion of this course the students will be able to -			
CO1	Understand research problem formulation		
CO2	Analyze research related information		
CO3	Follow research ethics		
CO4	Understand that today's world is controlled by Computer, Information Technology, but tomorrow world will be ruled by ideas, concept, and creativity.		
CO5	Understanding that when IPR would take such important place in growth of individuals & nation, it is needless to emphasis the need of information about Intellectual Property Right to be promoted among students in general & engineering in particular.		
CO6	Understand that IPR protection provides an incentive to inventors for further research work and investment in R & D, which leads to creation of new and better products, and in turn brings about, economic growth and social benefits.		
Learning Resources:			
1.	Research methodology: an introduction for science & engineering students, Stuart Melville and Wayne Goddard, Juta and Company Ltd, 2004		
2.	Research Methodology: An Introduction, Wayne Goddard and Stuart Melville, Juta and Company		
3.	Research Methodology: A Step by Step Guide for beginners, Ranjit Kumar, 2nd Edition, SAGE publications, 2014		
4.	Resisting Intellectual Property, Halbert, Taylor & Francis Ltd, 2007		
5.	Resisting Intellectual Property, Halbert, Taylor & Francis Ltd, 2007		
6.	Industrial Design, Mayall, McGraw Hill, 1992.		
7.	Product Design, Niebel, McGraw Hill, 1974		
8.	Intellectual Property in New Technological Age, Robert P. Merges, Peter S. Menell, Mark A. Lemley, 2016		
9.	Intellectual Property Rights Under WTO, T. Ramappa, S. Chand, 2008		
10.	Introduction to Design, Asimov, Prentice Hall, 1962		