



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

COURSECONTENT

RESEARCH METHODOLOGY AND IPR								
I Semester: SE								
Course Code	Category	Hours/ Week			Credits	Maximum Marks		
2512021	Core	L	T	P	C	CIA	SEE	Total
		2	0	0	3	40	60	100
contactClasses:30	TutorialClasses:Nil	PracticalClasses:Nil			TotalClasses:30			
Prerequisites:Nil.								

Course Overview:

This course provides a comprehensive foundation in research methodology, focusing on identifying research problems, conducting literature reviews, and applying ethical practices in research. It develops skills in technical writing, report preparation, and research proposal development for effective communication. The course also introduces Intellectual Property Rights (IPR), including patents, copyrights, and licensing, along with the procedures for patenting and technology transfer. Overall, it equips students with the knowledge required for conducting quality research and understanding the legal and practical aspects of protecting innovations.

Course Objectives:

1. To understand how to identify, define, and investigate a research problem.
2. To learn effective literature review methods and research ethics.
3. To develop skills in technical writing and research proposal preparation.
4. To understand the basics of Intellectual Property Rights and patenting processes.
5. To learn about patent rights, licensing, technology transfer, and emerging IPR issues.

Course Outcomes: At the end of this course, students will be able to

1. Identify and formulate research problems based on defined criteria and objectives.
2. Evaluate research literature critically to ensure ethical integrity and avoid plagiarism.
3. Write research proposals and technical reports for effective communication and presentation.
4. Explain key concepts and procedures related to patents, copyrights, and intellectual property protection.
5. Assess the scope and application of patent rights, licensing, and emerging trends in intellectual property.

SYLLABUS

UNIT-I

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



UNIT-II

Effective literature studies approaches, analysis, Plagiarism, Research ethics

UNIT- III

Effective technical writing, how to write report, Paper Developing a Research Proposal, Format of research proposal, a presentation and assessment by a review committee

UNIT-IV

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.

UNIT-V

Patent Rights: Scope of Patent Rights. Licensing and transfer of technology. Patent information and databases. Geographical Indications. 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.

TEXT BOOKS:

1. Stuart Melville and Wayne Goddard, "Research methodology: an introduction for science & engineering students"
2. Wayne Goddard and Stuart Melville, "Research Methodology: An Introduction"

REFERENCE BOOKS:

1. Ranjit Kumar, 2nd Edition, "Research Methodology: A Step-by-Step Guide for beginners"
2. Halbert, "Resisting Intellectual Property", Taylor & Francis Ltd, 2007.
3. Mayall, "Industrial Design", McGraw Hill, 1992.
4. Niebel, "Product Design", McGraw Hill, 1974.
5. Asimov, "Introduction to Design", Prentice Hall, 1962.
6. Robert P. Merges, Peter S. Menell, Mark A. Lemley, "Intellectual Property in New Technological Age", 2016.
7. T. Ramappa, "Intellectual Property Rights Under WTO", S. Chand, 2008

ELECTRONIC RESOURCES:

1. <https://nptel.ac.in/courses/105106828>
2. <https://nptel.ac.in/courses/121106007>



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MATERIALSONLINE:

1. Course template
2. Tutorialquestionbank
3. Definitionsand terminology
4. Assignments
5. Modelquestionpaper–I
6. Modelquestionpaper–II
7. Lecturenotes
8. E-LearningReadinessVideos(ELRV)