

I-I	Research Methodology and IPR	Course Code: V21MBT55	L	T	P	C
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**Course Outcomes: After completion of course, students would be able to**

- CO1:** Discuss different methodologies and techniques used in research work. (K2)  
**CO2:** Explain basic computer skills necessary for the conduct of research. (K2)  
**CO3:** Assess the basic function and working of analytical instruments used in research. (K3)  
**CO4:** Practice the required numerical skills necessary to carry out research. (K3)  
**CO5:** Demonstrate a capacity to identify, apply and assess ownership rights and marketing protection under intellectual property law as applicable to information, ideas, new products and product marketing. (K3)

**UNIT 1:** 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 2:** Effective literature studies approaches, analysis Plagiarism, Research ethics, 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 3:** 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 4:** Patent Rights: Scope of Patent Rights. Licensing and transfer of technology. Patent information and databases. Geographical Indications.

**UNIT 5:** 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.

**REFERENCES:**

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