

RESEARCH METHODOLOGY AND IPR

III Semester: CSE, ES, CAD/CAM, AE, ST, PEED																													
Course Code	Category	Hours / Week			Credits	Maximum Marks																							
BHSC11	Core	L	T	P	C	CIA	SEE	Total																					
		2	-	-	2	30	70	100																					
Contact Classes: 30	Tutorial Classes: Nil	Practical Classes: Nil			Total Classes:30																								
<p>I. COURSE OVERVIEW: This course imparts research methodology and philosophy of intellectual property rights, including basic concepts employed in quantitative and qualitative research methods, Patents, Copyrights, and Trademarks. It provides the research framework, research methodology research design, and formulation hypothesis, sampling techniques, data analysis and report writing. It implies on research skills and intellectual property rights to encourage new creations, including technology, artwork, and inventions, that might increase economic growth.</p> <p>II. COURSE OBJECTIVES: The students will try to learn:</p> <ol style="list-style-type: none"> I. The Knowledge on formulate the research problem, characteristics of a good research and interpretation of collected data. II. The importance of research ethics while preparing literature survey and writing thesis to achieve plagiarism free report. III. The intellectual property rights such as patent, trademark, geographical indications and copyright for the protection of their invention done. <p>III. COURSE OUTCOMES: After successful completion of the course, students should be able to:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">CO</th> <th style="width: 70%;">Outcome</th> <th style="width: 20%;">Cognitive Level</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">CO1</td> <td>Interpret the technique of determining a research problem for a crucial part of the research study.</td> <td style="text-align: center;">Remember</td> </tr> <tr> <td style="text-align: center;">CO2</td> <td>Examine the way of methods for avoiding plagiarism in research.</td> <td style="text-align: center;">Apply</td> </tr> <tr> <td style="text-align: center;">CO3</td> <td>Apply the feasibility and practicality of research methodology for a proposed project.</td> <td style="text-align: center;">Apply</td> </tr> <tr> <td style="text-align: center;">CO4</td> <td>Make use of the legal procedure and document for claiming patent of invention.</td> <td style="text-align: center;">Understand</td> </tr> <tr> <td style="text-align: center;">CO5</td> <td>Identify different types of intellectual properties, the right of ownership, scope of protection to create and extract value from IP.</td> <td style="text-align: center;">Understand</td> </tr> <tr> <td style="text-align: center;">CO6</td> <td>Defend the intellectual property rights throughout the world with the involvement of world intellectual property organization</td> <td style="text-align: center;">Apply</td> </tr> </tbody> </table> <p>IV. SYLLABUS: MODULE – I: INTRODUCTION (9) 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.</p>									CO	Outcome	Cognitive Level	CO1	Interpret the technique of determining a research problem for a crucial part of the research study.	Remember	CO2	Examine the way of methods for avoiding plagiarism in research.	Apply	CO3	Apply the feasibility and practicality of research methodology for a proposed project.	Apply	CO4	Make use of the legal procedure and document for claiming patent of invention.	Understand	CO5	Identify different types of intellectual properties, the right of ownership, scope of protection to create and extract value from IP.	Understand	CO6	Defend the intellectual property rights throughout the world with the involvement of world intellectual property organization	Apply
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MODULE – II: RESEARCH ETHICS 9)

Effective literature studies approaches, analysis Plagiarism, Research ethics.

MODULE – III: RESEARCH PROPOSAL

Effective technical writing, how to write report, Paper Developing a Research Proposal.

Format of research proposal, presentation and assessment by iare view committee

MODULE – IV: PATENTING (9)

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.

MODULE – V: PATENT RIGHTS (9)

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.

V. TEXT BOOKS:

1. Stuart Melville and Wayne Goddard, “Research methodology: an introduction for science & engineering student”.
2. Wayne Goddard and Stuart Melville, “Research Methodology: An Introduction”
3. RanjitKumar, “Research Methodology: A Step by Step Guide for beginners”. 2nd Edition, 2007.

VI. REFERENCE BOOKS:

1. Halbert, “Resisting Intellectual Property”, Taylor & Francis Ltd, 2007.
2. Mayall, “Industrial Design”, McGraw Hill, 1992.
3. Niebel, “Product Design”, McGraw Hill, 1974.
4. Asimov, “Introduction to Design”, Prentice Hall, 1962.

VII. WEB REFERENCES:

1. Robert P. Merges, Peter S. Menell, Mark A. Lemley, “Intellectual Property in New Technological Age”, 2016.
2. T.Ramappa, “Intellectual Property Rights Under WTO”, S.Chand, 2008.

VIII. E-TEXT BOOKS:

1. <http://nptel.ac.in/courses/107108011/>