



**CVM**  
**UNIVERSITY**

Aegis: Charutar Vidya Mandal (Estd.1945)

## FACULTY OF ENGINEERING & TECHNOLOGY

Effective from Academic Batch: 2022-23

**Programme:** Master of Technology(Artificial Intelligence)

**Semester:** I

**Course Code:** 202300111

**Course Title:** Research Methodology and IPR

**Course Group:** Mandatory Course

**Course Objectives:** To give an overview of the research methodology and explain the technique of defining a research problem. To explain various forms of the intellectual property, its relevance and business impact in the changing global business environment.

### Teaching & Examination Scheme:

Contact hours per week			Course Credits	Examination Marks (Maximum / Passing)				
Lecture	Tutoria l	Practical		Theory		J/V/P*		Total
				Internal	External	Internal	External	
2	0	0	2	-	-	50/20	50/20	100/4 0

\* J: Jury; V: Viva; P: Practical

### Detailed Syllabus:

Sr.	Contents	Hours
1	<b>Unit 1:</b> 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
2	<b>Unit 2:</b> Effective literature studies approaches, analysis. Plagiarism, Research ethics.	2
3	<b>Unit 3:</b> Effective technical writing, how to write report, Paper. Developing a Research Proposal, Format of research proposal, a presentation and assessment by a review committee.	3
4	<b>Unit 4:</b> 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



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<b>5</b>	<b>Unit 5:</b> Patent Rights: Scope of Patent Rights. Licensing and transfer of technology. Patent information and databases. Geographical Indications.	<b>3</b>
<b>6</b>	<b>Unit 6:</b> 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.	<b>3</b>
	<b>Total</b>	<b>20</b>

**Reference Books:**

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

**Pedagogy:**

- Direct classroom teaching
- Audio Visual presentations/demonstrations
- Assignments/Quiz
- Continuous assessment
- Interactive methods
- Seminar/Poster Presentation

**Suggested Specification table with Marks (Theory) (Revised Bloom's Taxonomy):**

<b>Distribution of Theory Marks in %</b>						<b>R: Remembering; U: Understanding; A: Applying; N: Analyzing; E: Evaluating; C: Creating</b>
<b>R</b>	<b>U</b>	<b>A</b>	<b>N</b>	<b>E</b>	<b>C</b>	
50%	20%	-	30%	-	-	

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.



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**Course Outcomes (CO):**

Sr.	Course Outcome Statements	%weightage
CO-1	Understand research problem formulation.	10
CO-2	Analyze research related information	15
CO-3	Understand that today's world is controlled by Computer, Information Technology, but tomorrow world will be ruled by ideas, concept, and creativity.	25
CO-4	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.	25
CO-5	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.	25

Curriculum Revision:	
Version:	2.0
Drafted on (Month-Year):	June-2022
Last Reviewed on (Month-Year):	-
Next Review on (Month-Year):	June-2022