RESEARCH METHODOLOGY & INTELLECTUAL PROPERTY RIGHTS

[As per Choice Based Credit System (CBCS) Scheme]
(From the academic year 2022-23)

Course Code	21RMI56	CIE Marks	50
Credits	02	SEE Marks	50
Course Type	Theory		
Lecture Hours/Week (L-T-P)	1-2-0-0	Total Marks	100
Total Hours	28 Hours	SEE Hours	03

Course Objectives:

CO1: To Understand the knowledge on basics of research and its types.
CO2: To Learn the concept of defining research problem and Literature Review,Technical Reading.
CO3: To learn the concept of attributions and citation and research design.
CO4: Concepts, classification, need for protection, International regime of IPRs - WIPO , TRIPS, Patent - Meaning, Types, surrender, revocation, restoration, Infringement , Procedure for obtaining Patent and Patent Agents.
CO5: Meaning, essential requirements, procedure for registration and Infringement of Industrial Designs, Copyright.

MODULES	Hours
Module-1 Introduction: Meaning of Research, Objectives of Engineering Research, and Motivation in Engineering Research, Types of Engineering Research, Finding and Solving a Worthwhile Problem. Ethics in Engineering Research, Ethics in Engineering Research Practice, Types of Research Misconduct, Ethical Issues Related to Authorship.	**06 Hours**
Module - 2 **Defining the research problem** - Selecting the problem. Necessity of defining the problem Techniques involved in defining the problem- Importance of literature review in defining a problem Literature Review and Technical Reading, New and Existing Knowledge, Analysis and Synthesis of Prior Art Bibliographic Databases, Web of Science, Google and Google Scholar, Effective Search: The Way Forward Introduction to Technical Reading Conceptualizing Research, Critical and Creative Reading, Taking Notes While Reading, Reading Mathematics and Algorithms, Reading a Datasheet.	**06 Hours**
Module - 3 **Research design** and methods - Research design - Basic principles. Need of research design Features of good design- Important concepts relating to research design - Observation and Facts **Attributions and Citations:** Giving Credit Wherever Due, Citations: Functions and Attributes, Impact of Title and Keywords on Citations, Knowledge Flow through Citation, Citing Datasets, Styles for Citations, Acknowledgments and Attributions, What Should Be Acknowledged, Acknowledgments in, Books Dissertations, Dedication or Acknowledgments.	**06 Hours**

Module - 4 Basic Concepts of Intellectual Property (IP), Classification of IP, Need for Protection of IP, International regime of IPRs - WIPO , TRIPS. **Patents:** Meaning of a Patent – Characteristics/ Features . Patentable and Non-Patentable Invention. Procedure for obtaining Patent. Surrender of Patent, revocation &restoration of Patents, Infringement of Patents and related remedies (penalties) . Different prescribed forms used in Patent Act. Patent agents-qualifications and disqualifications Case studies on patents - Case study of Neem petent, Curcuma(Turmeric)patent and Basmati rice patent, Apple inc.v Samsung electronics co.Ltd	**05 Hours**
Module - 5 **Industrial Design :** Introduction to Industrial Designs. Essential requirements of Registration. Designs which are not registrable, who is entitled to seek Registration, Procedure for Registration of Designs **Copy Right** Meaning of Copy Right. Characteristics of Copyright. Who is Author, various rights of owner of Copyright. Procedure for registration. Term of copyright, Infringement of Copyright and Its remedies. Software Copyright.	**05 Hours**

Assessment Details(both CIE and SEE)

The weight age of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks out of 50). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course if the student secures not less than 35% (18 Marks out of 50) in the semester-end examination (SEE), and a minimum of 40% (40 marks out of 100) in the sum total of the CIE(Continuous Internal Evaluation) and SEE (Semester End Examination) taken together.

Continuous Internal Evaluation:

Three Unit Tests each of 20Marks(duration 01hour)

1. First test at the end of 5th week of the semester
2. Second test at the end of the 10th week of the semester
3. Third test at the end of the15th week of the semester

Two assignments each of 10Marks

4. First assignment at the end of 4th week of the semester
5. Second assignment at the end of 9th week of the semester Groupdiscussion/ Seminar/quizanyoneofthreesuitablyplannedtoattaintheCOsandPOsfor20 Marks (duration 01 hours)
6. At the end of the 13th week of the semester

The sum of three tests, two assignments, and quiz/seminar/group discussion will be out of 100 marks and will be **scaled down to 50marks** (to have less stressed CIE, the portion of the syllabus should not be common /repeated for any of the methods of the CIE. Each method of CIE should have a different syllabus portion of the course).

CIE methods/question paper is designed to attain the different levels of Bloom's taxonomy as per the Outcome defined for the course.

Semester End Examination:

Theory SEE will be conducted by University as per the scheduled timetable, with common question papers for the subject (duration 03 hours)

1. The question paper will be set for 100marks.Marks scored shall be proportionally reduced to50 marks
2. The question paper will have ten questions. Each question is set for 20marks.
3. There will be 2questions from each module .Each of the two questions is under a module (with a maximum of 2 sub-questions).
4. The students have to answer 5 full questions, selecting one full question from each module.

Marksscoredbythestudentswillbeproportionallyscaleddownto50marks

Course Outcomes

At the end of the course the student will be able to:

CO1.To know them leaning of engineering research.
CO2.To know the defining of research problem and procedure of Literature Review.
CO3.To know the Attributions and Citations and research design.
CO4. Highlights the basic Concepts and types of IPRs and Patents
CO5.Analyse and verify the procedure for Registration of Industrial Designs & Copyrights.

Textbook

1. Research Methodology: Methods and Techniques C.R.Kothari, Gaurav Garg New Age International 4thEdition,2018
2. Dipankar Deb•RajeebDey,ValentinaE.Balas "EngineeringResearchMethodology",ISSN1868- 4394 ISSN 1868-4408 (electronic), Intelligent Systems Reference Library, ISBN 978-981-13- 2946-3 ISBN 978-981-13-2947-0 (eBook), https://doi.org/10.1007/978-981-13-2947-0.3
3. Dr. M.K. Bhandari"Law relating to Intellectual property" January 2017 (Publisher By Central Law Publications).
4. Dr. R Radha Krishna and Dr. S Balasubramanain "Text book of Intellectual Property Right". First edition, New Delhi 2008. Excel books.
5. P Narayan "Text book of Intellectual Property Right". 2017 ,Publisher: Eastern Law House

Reference Book:

1. DavidV.Thiel"ResearchMethodsforEngineers"CambridgeUniversityPress,978-1-107-03488- 4-
2. Nishith Desai Associates - Intellectual property law in India – Legal, Regulatory & Tax

NPTEL:

INTELLECTUAL PROPERTY by PROF.FEROZ ALI , Department of Humanities and Social Sciences IIT Madras

https://nptel.ac.in/content/syllabus_pdf/109106137.pdf

www.wipo.int

www.ipindia.nic.in