**MANDATORY COURSE**

**20ME31MC – PROFESSIONAL ETHICS AND INTELLECTUAL PROPERTY RIGHTS**

**(Common to ME & ECE)**

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| **Course Category:** | Mandatory  | **Credits:** | 0 |
| **Course Type:** | Theory | **Lecture-Tutorial-Practical:** | 3-0-0 |
| **Pre-requisite:** |  | **Sessional Evaluation:****End Exam Evaluation:****Total Marks:****Duration of External Exam:** | 40601003 hrs. |
| **Course Objectives:** | Students undergoing this course are expected to:1. Explain different kind of ethics and values.
2. Apply professional ethics in Engineering.
3. Explain the role of IPRs in professional life.
4. Elucidate the importance of patents and copyrights
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| **Course Outcomes:** | After completing the course, the student will be able to: |
| **CO1** | Understand Ethics and different types of values. |
| **CO2** | Understand Engineering Ethics and their usage. |
| **CO3** | Understand IPR. |
| **CO4** | Understand Patents. |
| **CO5** | Understand Copyrights and their need. |
| **CO6** | Understand Trademark and their need. |
| **Course Content:** | **UNIT – I****Human** **Values** : Morals, Values-types of values, Ethics, Integrity, Work ethics, Service learning, Virtues-civic virtues, Respect for others, Living peacefully, Caring, Sharing, Honesty, Courage, Valuing time, Cooperation, Commitment, Empathy, Self-confidence, Challenges in the work place. Spirituality-Spirituality in the Workplace, Spirituality for Corporate Excellence. Introduction to Yoga and meditation for professional excellence and stress management.**UNIT – II****Engineering Ethics:** Senses of “Engineering Ethics”, Variety of moral issues, Types of inquiries, Moral dilemma-Definition, Steps to solve dilemma. Moral Autonomy, Moral development–Kohlberg theory, Gilligan’s theory. Consensus and Controversy. Profession-Definition, Characteristics. Models of professional roles, Responsibility-Senses, Types, Responsible Professionalism, Social Responsibility, Accountability, Obligation. Theories about right action-Uses and criteria, Ethical theories. Self-interest, Customs and Religion, Self-respect.**UNIT – III****Intellectual Property Rights:** Introduction to Intellectual property law, Types of intellectual property, Importance of intellectual property, Agencies responsible for intellectual property Registration, Regulatory-Compliance and Liability issues.**UNIT – IV****Patents:** Introduction to Patents, What can be patented, What can be not patented, Publication Vs Patent, Types of Patents, Objects for Patenting an invention, Main steps of patenting procedure, Patent application procedure in India, Obtaining Patents, Rights and Obligations of a Patentee.**UNIT – V****Protection of Patents –** Introduction, Applying for Patent Protection in a Single Country, Protection under the Paris Convention, Protection under the Patent Cooperation Treaty. Royalty of Patents, Types of Royalties. Legal Problems with patents, Solutions to patent problems.**UNIT – VI****Trade Marks:** Definition, Function of trademark, Essentials of trade mark, Trade mark registration, Key features of trade mark, Advantages of trade mark assignment, Protectable matter, Selecting and evaluating trademark. |
| **Text Books:**  | 1. R.S. Naagarazan: Professional Ethics and Human Values, New Age International Publishers.
2. Deborah E Bouchoux: Intellectual Property - The Law of Trademarks, Copyrights, Patents and Trade Secrets, DELMAR CENGAGE Learning, 4th Edition, 2013.
 |
| **References:** | 1. Narayanan P.: Intellectual Property Law, Eastern Law House (2007) 3rd Edition.
2. P. Radhakrishnan - Intellectual Property Rights.
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| **e-Resources:** | <http://nptel.ac.in/courses> |

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| **Contribution of Course Outcomes towards achievement of Program Outcomes** |
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
| CO1 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - | 3 | - | - |
| CO2 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - | 3 | - | - |
| CO3 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - | 3 | - | - |
| CO4 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - | 3 | - | - |
| CO5 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - | 2 | - | - |
| CO6 | 2 | 2 | 2 | 3 | 2 | - | - | - | - | - | - | 3 | - | - |