**17CE3203 – ENGINEERING ETHICS**

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| **Course Category**  | Professional Core | **Credits**  | 3 |
| **Course Type**  | Theory | **Lecture - Tutorial - Practical**  | 3 - 0 - 0 |
| **Prerequisite**  | None | **Sessional Evaluation**  | 40 |
| **Semester End Exam Evaluation**  | 60 |
| **Total Marks**  | 100 |

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| **Course Objectives** | 1. To create awareness on engineering ethics providing basic knowledge about engineering ethics, professional ideals and virtues.
2. To provide basic familiarity about engineers as responsible experimenters, research ethics, Industrial standards.
3. To inculcate knowledge and exposure on safety and risk, risk benefits analysis.
4. To have an idea about the collegiality and loyalty, collective bargaining, confidentiality, occupational crime.
5. To explain concept of intellectual property rights.
6. To have an adequate knowledge about MNC’s, business, environment, computer ethics, honesty, moral leadership and sample code of conduct.
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| **Course Outcomes** | CO1 | Understand the basic perception of profession, professional ethics, various moral issues & uses of ethical theories. |
| CO2 | Understand various social issues, industrial standards, code of ethics and role of professional ethics in engineering field. |
| CO3 | Solve ethical problems. |
| CO4 | Aware of responsibilities of an engineer for safety and risk benefit analysis. |
| CO5 | Aware of professional rights and responsibilities of an engineer. |
| CO6 |  Perform various roles of engineers in variety of global issues and able to apply ethical principles to resolve situations that arise in their professional lives. |
| **Course****Content** | **UNIT-I**Introduction to professional ethics: Basic concepts – Governing ethics – Thoughts of ethics, engineering ethics, ethics and law – case studies.**UNIT-II**Professionalism and codes of ethics – Ethical problems.**UNIT-III**Techniques for solving ethical problems. **UNIT-IV**Risk, safety and accidents – Designing for safety – Case studies.**UNIT-V**Rights and responsibilities of engineers – Ethics in research – Computer ethics – Experimentation.**UNIT-VI**Global issues in professional ethics: Introduction – Current scenario – Business ethics and corporate governance – Media ethics – Bio ethics – War ethics – Intellectual property rights. |
| **Textbooks****and****References** | **TEXTBOOKS:**1. Engineering Ethics - Charles B.Fleddermann.
2. Engineering Ethics (Includes Human Values) by M Govindarajan, PHI Publications (2004).
3. Professional Ethics and Human Values by M. Govindarajan, S. Senthilkumar, M.S. Natarajanv, PHI Publications (2016).
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