**Intellectual Property for Engineers: Strategies and Procedures**

Credits: 04 No. of Hours : 45

**Course objectives**: Innovation is crucial to us and plays significant role in the growth of economy. Government policies and legal framework offer protection to new inventions and creative works. This course intends to equip students to understand the policies and procedures they may have to rely on for the purpose of protecting their inventions or creative works during the course of their study or employment.

The course consists of five units. Theories behind the protection of intellectual property and its role in promoting innovations for the progress of the society is the focus of first unit. Second unit deals with protection of inventions through patent regime in India touching upon the process of obtaining international patents. The central feature of getting patent is to establish new invention through evidence. This is done through maintaining experimental/lab records and other necessary documents. The process of creating and maintain documentary evidence is dealt in Unit 3. Computers have become an integral part of human life. Till 1980, computer related inventions were not given much importance and lying low but today they have assumed huge significance in our economy. Computer related inventions and their protection which requires special treatment under legal regimes are discussed in Unit 4. The last module deals with innovations in e-commerce environment.

**Unit -1 Introduction 8 hrs**

Philology of intellectual property - Intellectual Property & Intellectual Assists – Significance of IP for Engineers and Scientists – Types of IP – Legal framework for Protection of IP – Strategies for IP protection and role of Engineers and Scientists

**Unit – 2 Patenting Inventions 16 hrs**

Meaning of Invention – Product and Process Patents – True inventor – Applications for Patent – Procedures for obtaining Patent – Award of Patent – rights of patentee – grounds for invalidation – Legal remedies – International patents

**Unit -3 Inventive Activities 8 hrs**

Research Records in the patent process – Inventorship - Internet patent document searching and interactions with an information specialist - Interactions with a patent agent or attorney - Ancillary patent activities - Technology transfer, patent licensing and related strategies

**Unit – 4 Computer Implemented Inventions 8 hrs**

Patents and software – Business Method Patents – Data protection – Administrative methods – Digital Rights Management (DRM) – Database and Database Management systems - Billing and payment – Graphical User Interface (GUI) – Simulations – E-learning – Medical informatics – Mathematical models

**Unit – 5 Innovations in e-commerce 5 hrs**

IP issues in e-commerce - Protection of websites – website hosting agreements – Copyright issues – Patentability of online business models – Jurisdiction – Digital signatures – Evidentiary value of Electronic signature certificates – Role of Certifying Authorities – Protection of Semiconductor ICs