

Advanced Course on MedTech Innovation, Intellectual Property and Patent Strategy

(October 12 – 16, 2026)

Module	Description
Module 1: Innovation, Design Thinking & IP Generation	This module introduces systematic innovation methodologies, including design thinking, clinical need identification, TRIZ, and inventive problem-solving, to generate high-value intellectual property in healthcare. Participants will learn how unmet clinical needs can be translated into patentable inventions through structured ideation, design validation, and innovation management.
Module 2: Fundamentals of Intellectual Property & MedTech Patentability	Participants will develop a comprehensive understanding of patents, copyrights, industrial designs, trademarks, trade secrets, geographical indications, and plant varieties, with emphasis on their relevance to healthcare technologies. The module examines patentability requirements, statutory exclusions, inventorship, ownership, and strategies for protecting medical devices, diagnostics, AI, software, and digital health innovations in India and internationally.
Module 3: Prior-Art Search, Patent Landscaping & Patent Analytics	This module provides hands-on training in conducting prior-art searches using Indian and international patent databases, scientific literature, and AI-assisted search tools. Participants will learn patent landscaping, citation analysis, white-space identification, technology trend analysis, and freedom-to-operate assessment to support research planning and innovation strategy.
Module 4: Patent Drafting, Filing & International Patent Protection	Participants will learn the complete process of preparing high-quality patent specifications, including drafting claims, descriptions, drawings, abstracts, and invention disclosures for medical technologies. The module covers Indian patent filing procedures, provisional and complete specifications, PCT applications, Paris Convention filings, national phase entry, and strategies for building strong international patent portfolios.
Module 5: Patent Prosecution, FER Response & Hearing Practice	This module focuses on the post-filing prosecution process, including examination procedures, First Examination Reports (FERs), office actions, amendment strategies, hearings before the Indian Patent Office, opposition proceedings, and patent grant. Through practical exercises and case studies, participants will learn how to prepare effective FER responses, defend patentability, and navigate the prosecution process successfully.
Module 6: IP Management, Technology Transfer & Institutional Innovation Ecosystems	Participants will explore institutional IP policies, ownership models, inventor rights, technology transfer mechanisms, licensing frameworks, startup creation, and university-industry collaboration. The module also discusses IP valuation, portfolio management, research contracts, confidentiality agreements, material transfer agreements, and innovation governance within academic and healthcare institutions.

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Module 7: Emerging Intellectual Property Issues in Healthcare & Artificial Intelligence	This module examines contemporary challenges associated with protecting AI-based medical technologies, software as a medical device, digital therapeutics, bioinformatics, big data, precision medicine, and digital health platforms. Participants will also discuss ethical issues, data ownership, AI-generated inventions, copyright in software, open-source licensing, cybersecurity, and future developments in healthcare intellectual property.
Module 8: IP Enforcement, Litigation & Commercialization Pathways	This module provides an overview of patent infringement, opposition, revocation, licensing, dispute resolution, and strategies for enforcing intellectual property rights in the healthcare sector. Participants will also gain an understanding of how patents support technology transfer, startup formation, funding, and commercialization while minimizing legal and business risks.

Capstone Project: Patenting Through Design Thinking – From Clinical Need to Granted Patent

Working in multidisciplinary teams, participants will identify an unmet clinical need, apply design thinking and inventive problem-solving techniques to develop an innovative solution, conduct prior-art and patent landscape analyses, assess patentability, prepare a complete invention disclosure and draft patent claims, and develop a patent filing and prosecution strategy, including responses to potential First Examination Report (FER) objections. The capstone culminates in a simulated patent hearing before an expert panel comprising patent examiners, registered patent agents, clinicians, technology transfer professionals, and innovation experts, providing participants with a realistic end-to-end experience of the patenting process.

Resource Persons

- **Leading academicians** from IITs, AIIMS, IISc, NITs, and other premier institutions with expertise in healthcare innovation, biomedical engineering, artificial intelligence, intellectual property, and entrepreneurship.
- **Registered Patent Agents, Patent Attorneys, and former Indian Patent Office officials** with extensive experience in patent drafting, prosecution, First Examination Report (FER) responses, hearings, oppositions, and patent strategy.
- **Technology transfer and innovation ecosystem experts** from Technology Business Incubators (TBIs), Technology Transfer Offices (TTOs), research organizations, and national innovation agencies such as BIRAC, ANRF, and Startup India.
- **Regulatory and industry professionals** with expertise in medical device regulations, quality management systems, standards, and translational research for healthcare technologies.
- **Successful MedTech entrepreneurs, startup founders, investors, and innovation leaders** with demonstrated experience in building IP-driven ventures, technology commercialization, and scaling healthcare innovations.