Unit V – Startups and IPR

Innovation & Entrepreneurship

R25 B.Tech ECE | JNTUH

Learning Outcomes

Understand startup requirements and lifecycle.

Build founding teams and mentor networks.

Prepare startup pitches and registration steps.

Identify funding opportunities and institutional support.

Understand patents, designs, copyright, trademarks, GI and licensing.

Startup Fundamentals

A startup is a venture designed to develop and validate a repeatable and scalable solution.

Key requirements include a problem, target customer, value proposition, team and business model.

Startups operate under significant uncertainty and require continuous learning.

Startup Lifecycle

Idea and problem discovery.

Customer validation.

Prototype/MVP development.

Early traction.

Scaling and expansion.

Maturity or exit.

Stages can overlap and vary by venture.

Founding Team

Combine complementary skills such as technology, business, operations and domain expertise.

Clarify roles and decision rights.

Discuss commitment, equity and responsibilities early.

Strong teams learn quickly and manage uncertainty together.

Mentors & Networks

Mentors provide experience, feedback and connections.

Useful networks include alumni, founders, faculty, industry experts and incubators.

Choose mentors aligned with the venture’s current challenges.

Maintain relationships through clear updates and specific questions.

Pitch Preparation

A pitch communicates the venture clearly and persuasively.

Typical flow: problem, customer, solution, market, business model, traction, competition, team and ask.

Use evidence instead of unsupported claims.

Keep the story focused on customer value and business potential.

Startup Registration

Choose an appropriate legal structure.

Complete applicable incorporation and tax registrations.

Maintain required records and licenses.

Assess eligibility for startup recognition or government schemes where applicable.

Obtain professional legal/tax advice for venture-specific requirements.

Funding Opportunities

Bootstrapping and founder capital.

Friends and family funding.

Grants and innovation support.

Incubators and accelerators.

Angel investment and venture capital.

Debt or other financing where appropriate.

Institutional Support

Incubation centres can provide mentoring, workspace and networks.

Institutions may offer innovation challenges, grants or technical facilities.

Government programs may support eligible startups.

Evaluate funding terms, eligibility and reporting requirements before applying.

National Innovation and Startup Policy (NISP)

NISP provides a framework for fostering innovation and entrepreneurship in higher-education institutions.

It encourages student innovation, incubation, IPR awareness and startup support.

Institutions can develop ecosystems connecting students, faculty, mentors and industry.

Implementation should align with the institution’s applicable policy framework.

Legal Aspects of Startups

Business structure and founder agreements.

Employment and consultant agreements.

Customer and vendor contracts.

Data protection and regulatory compliance.

Tax, accounting and statutory obligations.

Protect intellectual property and confidential information.

What is IPR?

Intellectual Property Rights protect creations of the mind.

Major forms include patents, industrial designs, copyright, trademarks and geographical indications.

IP can create competitive advantage and licensing opportunities.

Choose protection according to the type of creation.

Patents & Patentability

A patent protects an eligible invention for a limited period under applicable law.

Patentability generally involves novelty, inventive step and industrial applicability in India.

A patent application requires technical disclosure.

Prior-art searching is important before filing.

Procedure for Grant of Patents in India

Prepare and file the appropriate patent application.

Application is examined under the applicable procedure.

Respond to examination objections when required.

The application may proceed through publication, examination and grant stages.

Professional patent assistance can help with drafting and prosecution.

Industrial Designs

Design protection concerns the visual features of an article.

It can protect shape, configuration, pattern or ornamentation as applicable.

Design registration can help prevent unauthorized copying of protected visual features.

Keep records of creation and assess novelty requirements.

Copyright, Trademark & GI

Copyright protects original literary, artistic and certain other works.

Trademark protects signs that distinguish goods or services.

Geographical Indication identifies goods associated with a particular geographical origin and qualities/reputation.

Each right has different eligibility, scope and duration rules.

International IPR

International business may require protection in multiple jurisdictions.

International cooperation can simplify aspects of filing and administration.

The Patent Cooperation Treaty (PCT) provides an international patent application route.

Country-specific rights still depend on national laws and procedures.

Licensing & Technology Transfer

Licensing permits another party to use IP under agreed terms.

Agreements can define territory, duration, field of use, fees and royalties.

Technology transfer moves knowledge or technology from one party to another.

Due diligence and clear contracts reduce commercial and legal risks.

Unit V – Key Takeaways

Successful startups need capable teams, validation, networks and funding strategy.

A clear pitch connects the problem, solution, market, business model and evidence.

IP protection should be planned early where relevant.

Patents, designs, copyright, trademarks and GI serve different purposes.

Licensing and technology transfer can convert IP into commercial value.