

Model IPRinternalise™ – Integrating Intellectual Property Rights in technical education

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Abstract

The present model “IPRinternalise™” seamlessly integrates Intellectual Property Rights (IPR) in technical education, primarily in India, by incorporating the IPR process in all student projects from a very early stage so that the students get exposed to the significance of prior art searches, analysis of prior art in the context of the problem they are solving, developing solutions that are novel, have tailored inventive steps and are useful. Such an approach value adds to the “learning” ability of the students and instills in them ethical values and trains them to observe, critically analyse and provide innovative solutions thereby making their educational process substantially comprehensive. The model “IPRinternalise™” also provides a sustainable, cost effective and scalable process for the creation of a critical mass of networked IP literate personnel who are trained to work in “Communities of IP Practices”.

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Keywords: IPRinternalise; Technical education; IPR training; Student inventions; India

1. Introduction

Education is a process for the development of evergreen minds with the ability to perceive the future, learn continually from the exhaustive global knowledge bank and innovate to meet evolving needs of society. The eastern system of education has always propagated “a learning based” educational process as opposed to “teaching based” approach as is practiced in various countries. The present work explores an approach to seamlessly integrate the IPR process in a formal technical educational system, structured in a manner to make IPR a way of enhancing their skills and learning abilities without subjecting them to IPR courses in addition to their technical courses.

Several authors have discussed varying approaches to introducing IP in technical education. Hennessey [1] proposed models such as the case method, problem solving method, simulation model, clinical method and doctrinal method. Kaplan and Kaplan [2] and Soetendrop,

McLaughlan, Roach, and Childs [3] have proposed and designed IP courses for non-lawyers as a formal part of their technical education and implemented them through interdepartmental collaborative efforts.

2. Model IPRinternalise™

The present model “IPRinternalise” in contrast to earlier efforts, seamlessly integrates IPR in technical education in a well-structured IPR process providing an experience-lead framework with value added learning. The “learn as you do” system induces a student to naturally explore and exploit the richness of existing knowledge (prior art), contextually build on it and provide technical solutions to problems as he assesses it, and in the process inculcates the necessary IPR skills to create and protect his creations. This approach to IP for a student is “stress and burden free” but “relevant and need based” as he is drawn into it by a natural tide originating from his immediate requirements as is depicted in Fig. 1.

The system is designed to catalyse the initial creation of an intra-institutional core group of IP literate professionals

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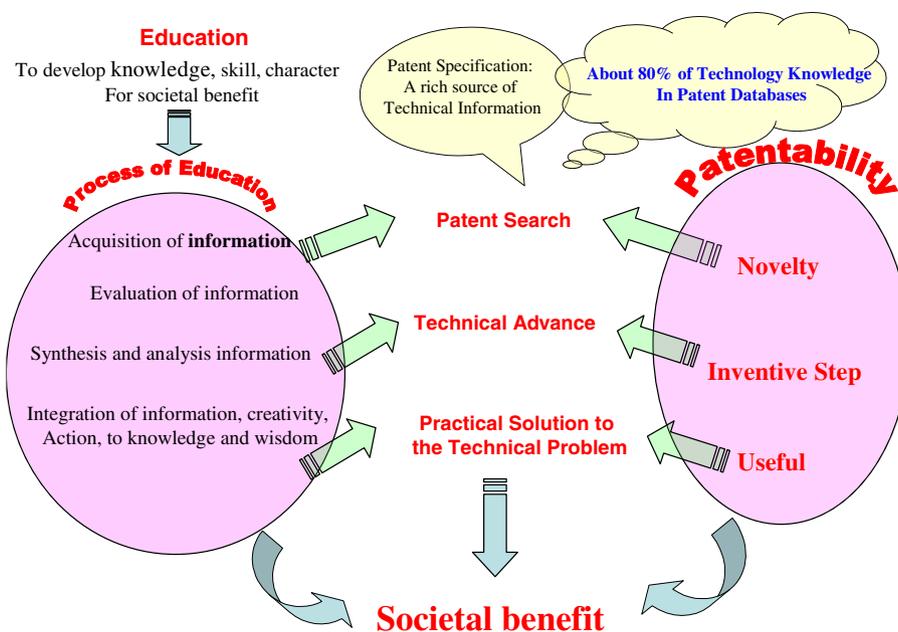


Fig. 1. Model “IPRinternalise™”.

drawn from faculty and technical staff who voluntarily opt to go through the process. The faculty and staff attend an IPR awareness programme specifically designed to demonstrate how IPR helps to enhance the quality of technical education and how exposure to IPR helps to develop creative minds. The formation of an “IPR literate core group” in the institution ensures a buy-in at the grassroots level thereby laying the foundations for a multiplier effect in which an institution’s “core group” as trainers, are able to train “core groups” in other institutions. Such a peer-to-peer transfer of purpose and experience encourages inter-institutional group learning among the trainers and trainees, thereby ensuring continual skill growth within institutional networks, which establish a critical mass of IP trained personnel in a region. This process assumes initial support from the management of the institution in which Institutional IPR Policy is set up holistically addressing all aspects of IPR including ownership of inventions, rules for transfer of technology, benefit sharing, etc. as illustrated in Fig. 2.

The core group as illustrated in Fig. 3 is exposed to the basics of IPR in structured training programmes, taught how to identify problems, how to conduct prior art searches, how to design inventions to solve the identified technical problems, how to design inventive steps in an invention, how to read patents and interpret claims, etc. The IP literate core group then guides students on how to approach their projects, which the students are expected to formally complete as part requirement of their Bachelor’s or Master’s Engineering Degree Programmes.

The students, for example, at the third year of their engineering degree course are drawn into brain storming sessions to sensitise them to their environments to critically observe and select problems that appeal to them and then

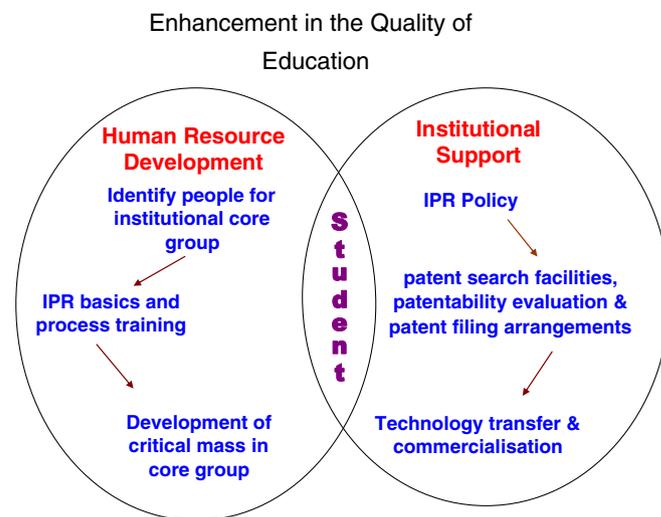


Fig. 2. Model “IPRinternalise™” enhancing quality of technical education.

are initiated to the IPR process by the trained “IP literate Core Group” to the global literature including patents search. The students then seek inventive solutions to the identified problems keeping in mind the relevant prior art. As the project progresses, the IP core group evaluates the results for appropriate protection by way of patents and design registrations (Figs. 3 and 4).

The institutional IP Core Group with support of their respective institutional management also serves to identify possible partners for commercialisation of the inventions, which are outcome of the student projects. These provide practical opportunities to the IP core group to further their learning and skills in the process of technology transfer and commercialization of their acquired IP.

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