Researchers Need to be Patent Savvy

Vinod Varshney

For several years the gross annual expenditure on scientific research and development in the country has been more than one lakh crore rupees. Obviously, some good science is coming out of this substantial expenditure.

But when one looks at the number of patents granted for their inventions and applications made for them by our resident researchers, the figure is abysmally low. In the year 2015, Indian resident scientists filed 12,579 applications for Indian and international (PCT) patents and only 822 patents were granted on the basis of previous applications.

Data reveals that not only resident Indian scientists are filing very few patent applications but number of patents granted is even fewer as a percentage of the applications. Comparative figures for China are very high. In the year 2005, Chinese residents were granted 263,436 Chinese and international (PCT) patents, which is 320 times more than that of Indians.

Foreign researchers get approximately six times more patents in India than their Indian counterparts. If one goes by anecdotal evidence, either the Indian researchers do not have an inclination to file patent application on ideological ground, just as the illustrious J.C. Bose did not do for his
path-breaking research in transmission of electro-magnetic waves, or they don’t have sufficient motivation, confidence, knowledge, information or wherewithal to apply for a patent. It also appears that they are either not able to describe their invention in a manner that can ensure them a patent which is a globally competitive exercise or they repeat an old research that is already in public domain and therefore they fail miserably in their attempt to get a patent. Many Indian resident researchers’ applications get rejected on technical grounds.

All these things point to a dire need to increase technical and legal awareness of the patent regime among researchers and research administrators. For example, out of 785 universities in the country, only 71 have an Intellectual Property cell to look after patenting needs of the researchers. Others have to search for literature on their own.

For general researchers, therefore, the book Patenting in India: Policy, Procedure and Public Funding is a laudable attempt that bridges this gap. The author, Dr. Laxman Prasad, a PhD in engineering from London, an ex-adviser in the Department of Science & Technology, Government of India and currently Group Director (R&D) of a group of institutions, has been a close witness to the patenting related woes and realised the crying need to produce a comprehensive book on filing an application for Indian patents and international patents under PCT (Patent Cooperation Treaty comprising 152 countries). This couldn’t be a more opportune time when the entire world is inspired by the Innovation Decade: 2010-20.

The book on as technical a subject as patents is supposed to be a practical techno-legal guide. But, the author has tried to encompass in it a lucid account of the scientific scenario in the country including various policy initiatives that the government had taken from time to time. These elements make the book readable even for those who are not in the business of science and do not have to seek a patent but have a general interest in public policies and systems related to doing science.

The book is, doubtlessly, a must for research students, faculty of educational institutes, scientists and laboratory managers and mentors. It will also be useful to the industry that always looks forward to remaining competitive by acquiring licences or assignments of new relevant patents or running their own research programmes to acquire their own patents. The book will also be useful for policy makers and economists as they have to keep a tab on new changes in the offing in the patent regime such as various treaties or conventions that perennially remain under discussion courtesy the World Trade Organisation.

A key advice of the author to the researchers is that they should apply for a patent before making public their research. He explains in detail what scientists may lose if they do not get their invention patented. The author breaks the myth that applying for patent is just a legal matter. He stresses that it is a hardcore scientific issue as the grant of patent depends on the scientific argument, a scientific justification for the novelty, non-obviousness and its utility in industrial use to justify the claim. The specification of the invention has to be convincingly and scientifically described in the patent application. The scientist has also to describe the existing knowledge and prior art to establish that his/her invention is truly new, non-obvious and has inventive steps.

Patent is not just a recognition, but also provides exclusive rights to use the patented process or product preventing others from making, using, selling or importing the patented stuff for a specific period, which is 20 years in India. However, a patent generates some obligations as well and this aspect is not appreciated much. The key obligation is that the patent should not remain on the shelf only but should be worked. If the patent is not worked by the patentee, the owner runs the risk of losing it.

There may be some tricky issues as well. For instance, if your invention pertains to a defence application, such a patent application cannot be published. For violation of this provision the researcher can be imprisoned for a period of up to 2 years or fined or subjected to both.

When an individual researcher, a university or research company or institution is not able to work a patent, it can be assigned or licensed to some entity or person for a lump-sum fee or royalty or both. Here comes the issue of valuation of a patent. Intellectual property is an intangible asset. To value a patent one has to have an understanding not only of the patent law but also of the complexity of the existing technology scenario, market behaviour, financing and accounting. Who would like to undersell one’s invention? Some tips given in the book may be useful.

The most useful part of the book for researchers pertains to the necessity of studying various relevant patent applications to select ones own theme for research. The test of novelty will not pass muster if the same research is already patented in some other country. The author advises that researchers, therefore, must ‘consult the patent literature before initiating research efforts to avoid re-invention of the wheel’.

Undoubtedly, obtaining a patent involves a lot of legal complexities and compliance of various provisions of international treaties and therefore researchers need to properly understand the related nitty-gritties. Researchers normally like to get an international patent for their invention and the application procedure for this has been explained thoroughly.

Researchers, especially in the universities, look for financial assistance to meet the expenditure in filing Indian and international patents. The government has certain funding mechanisms in place to help out researchers. But where and how to get this help? This has also been appropriately described in the book.

The book not only inspires researchers to tailor their research activities in a patent-friendly manner but also serves as a handy guide in all matters pertaining to patent filing, even providing the necessary forms, draft deeds and agreements required.

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