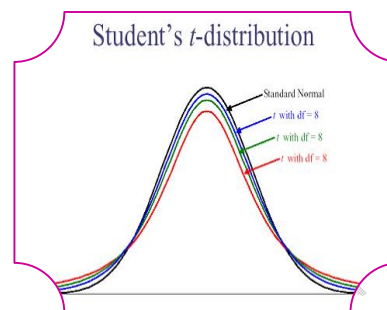




## t TEST - AWARENESS ON IPR CONCEPT (AMONG ENGINEERING COLLEGE STUDENTS IN MADURAI)

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### ABSTRACT

Intellectual property (IP) contributes enormously to our national and state economies. Dozens of industries across our economy rely on the adequate enforcement of their patents, trademarks, and copyrights, while consumers use IP to ensure they are purchasing safe, guaranteed products. We believe IP rights are worth protecting, both domestically and abroad. IP rights facilitate the free flow of information by sharing the protected know-how critical to the original, patented invention. In turn, this process leads to new innovations and improvements on existing ones. Since research and development are high among Engineering College students as research is part of their academic completion, awareness on IPR is inevitable. Hence an attempt is made in this paper to analyse the extent of awareness on IPR and its related concepts among them.

**KEYWORDS:** awareness, research and innovation, Engineering students

### INTRODUCTION:

For a sustainable growth and economic development of a country, innovation and creativity is a very important dimension. Industries and the global markets of the 21st century rest on the intellectual property protection as it is one of the central public policy. By the mid-1990s, a minimum global standard for IPR had been preserved in the WTO Charter through the incorporation of the Agreement on Trade-Related Aspects of Intellectual Property Rights.

The transfer in international economic policy and the lowering of tariff and nontariff trade barriers to the embrace of strong IPR is genuinely an issue of controversy. Intellectual property rights (IPR) are legal claims settled by governments within their relevant sovereignties that grant trademark, patents and owners of copyright the exclusive right to exploit their intellectual property for a certain period. The fundamental right for IPR protection is to provide an incentive for innovation by granting IP owners an opportunity to recuperate their research and development costs. With the rapid change in technology and social drivers, the introduction of the Intellectual Property Rights has become increasingly important as it provides a legal and policy toolkit to encourage innovation, stimulating investments required to develop, market new innovations and spreading technology. However, certain policymakers, nongovernmental organisations, scholars and others have queried on the roles of IPRs in the 21st century and also whether its full implementation might be very costly to developing nations.

### IMPORTANCE OF THE STUDY

Bringing all of these important and diverse points together is the fact that protecting IP is a non-partisan issue that is shared by a broad coalition of interests. These rights are embraced by all sectors of

industry—small, medium and large companies alike—and by labour organizations, consumer groups, and other trade associations bring together.

Indeed, most people are not even aware that they own Intellectual property. They assume only large corporations with profitable names; logos and brands to protect are the only ones who really possess a need to safeguard intangible assets. But basically anything that is written, visually created, and unique to an individual is intellectual property which means that millions of individuals own more than they believe.

## REVIEW OF LITERATURE

**Janusz A. Ordover (1991)**<sup>1</sup> use Japan as an example of a country that has designed a patent laws that not just incentives R&D but also promotes cooperation among firms regarding the patents. He argues that weak patent protection not necessarily will be an obstacle to economic growth and that strong patent protection not have to be an enemy of diffusion.

**David (1993)**<sup>2</sup> Patents have existed in western societies for centuries and was originally used as an instrument used by noble or republican governments in later medieval and early Renaissance Europe to induce the transfer and disclosure of foreign technologies.

**Ferrantino (1993)**<sup>3</sup> argues that firms prefer FDI over licensing when protection is weak, as firms are moreable to maintain direct control over their proprietary assets through internalised foreign production or in house foreign R&D.

**Arundel et al. (1995)**<sup>4</sup>, further, find that patents and lead-time advantages are most important to protect process inventions, whereas secrecy is most important to protect process inventions in most industries.

**Mansfield (1996)**<sup>5</sup> show empirically, through a sample of US chemical multinational firms, that the proportion of FDI devoted to final production of R&D facilities was negatively and significantly associated with weak intellectual property protection.

**Wesley M. Cohen, Richard R. Nelson and John P. Walsh (2000)**<sup>6</sup> investigates how firms in the U.S. manufacturing firms use IntellectualProperty Rights (IPRs) to protect their innovations. They also examine other mechanisms used to protects the profits. For the protection of profits their results showed that patents tended to be the leastemphasized while secrecy and lead time were emphasized the most. For the protection ofproduct innovations, secrecy seems to have become a more important mechanism than before.

## STATEMENT OF THE PROBLEM

Intellectual property is a significant issue for many students, not only for the successful completion of their academic course, but as importantly, to ensure students understand how ideas are recognised and protected, to prepare them for the growing world of enterprise and innovation beyond graduation.

Major Engineering Institutes around the country are giving increasing emphasis on research on commercializable technologies. Engineering students, from B. Tech. to Ph. D. are being sensitized to the emerging environment. Every final year student of the B. Tech and M. Sc. classes spends about 25% of his time on the project. Final year M. Tech. students are full time researchers. Working together with them are the faculty and the technicians. An increased awareness of patents and IP helps to create an educated and receptive (decision making) community within an organisation. Technology-based organisations in particular should have an awareness of the opportunities for value creation by generating and exploiting IP assets such as patents and trade secrets.

Students are pillars of the nation. Legal awareness becomes essential to them, particularly legal system relating to Intellectual property and protection. Youths, particularly engineering college students play a vital role in creation and invention goods and ideas. Awareness of Intellectual property and protection should be an essential behaviour required to. But their awareness levels on these issues are very less. Intellectual property rights are accepted all over the world due to some important reasons. They were essentially recognized for the acceptations of these rights are:-

- Provides incentives to the students for new creations.
- Providing due recognition to the students creators and students inventors.

- Ensuring the material reward for intellectual property.
- Ensuring the availability of the original products.
- For economic growth and advancement in technology sector protection of Intellectual property protection is important.

Students are benefited for the growth of the business in the field of technology.

Hence an attempt is made to analyses the level of awareness levels of engineering college students on Intellectual property rights and its related issues.

### OBJECTIVE OF STUDY

- to present the profile of the respondents and analyze their opinion on concept related statements

### Methodology

#### Sources of Data:

This study is descriptive and analytical one. Both primary and secondary data are used in this study. Secondary data are collected from books, journals, dailies and publications of Patent Right protections councils and Centre and state Government relating websites to Patent Rights and Protection.

Primary data are collected from the Engineering students of Colleges in Madurai District of Tamil Nadu. A comprehensive questionnaire is prepared covering all aspects relating to Patent Rights and Protection. The questionnaire are issued to students for the purpose of collecting primary data from them in person.

### Sampling Design

The Engineering Colleges namely Thiagaraja College, C.R Engineering College, Vaigai College of Engineering, PTR College of Engineering and Technology, Raja College of Engineering and Technology, SACS MAVMM Engineering College, Vickram College of Engineering, Fatima Michael College of Engineering and Technology, Vellammal College of Engineering and Technology, Ultra College of Engineering and Technology for Women LathaMadhavan College of Engineering, Sethu Institution of Technology, Mangayarkarasi College of Engineering, KLN College of Engineering, Madurai Institution of Engineering and Technology, Pandian Saraswathy Yadav Engineering College, Pannai College of Engineering and ST.Michael College of Engineering and Technology, Anna University Regional Campus are in Madurai District. The number of students in these colleges are many and the awareness level of them on concepts are not appreciable, non-random sampling technique is adopted for data collection. Hence, 120 students responses are collected for analysis.

### Statistical Tools

For analysing the objective of the article simple percentage analysis and t test are.

### Analysis of study

The analysis consists of two parts. I profile of the sample respondents and II their awareness level on concept relating to IPR.

#### 1. Profile of respondents

The following table shows the profile of the Respondents

**Table 1 Profile of the Respondents**

S. No	Particulars	No. Of respondents	% of respondents
Gender Wise Classification			
1.	Male	68	57
	Female	52	43
	Total	120	100
Branch Wise Classification			

2.	communication	36	30
	Computer	25	20
	Electronics	13	10
	Civil	25	20
	Marine	9	8
	Aeronautical	3	2
	others	14	10
	Total	120	100
Class Studying Wise Classification			
3.	UG	43	36
	PG	77	64
	Total	120	100
UG Wise Classification			
4.	I year	7	16
	II year	4	10
	III year	25	58
	IV year	7	16
	Total	43	100
PG Wise Classification			
5.	I year	35	45
	II year	42	55
	Total	77	100
Father/ Mother' Occupation Wise Classification			
6.	professionals	44	37
	Businessman	42	35
	others	34	28
	Total	120	100
Whether Interested in Research & Development Wise Classification			
7.	Yes	54	45
	No	66	55
	Total	120	100
Whether have Idea On Invention Wise Classification			
8.	Yes	73	61
	No	47	39
	Total	120	100
Willing to Register IPR Wise Classification			

9.	Yes No	91 29	76 24
	Total	120	100
Knowledge on Invention Protection Wise Classification			
10.	Yes No	82 38	68 32
	Total	120	100
Awareness on IPR Wise Classification			
11.	Yes No	69 51	57 43
	Total	120	100
Source of Awareness Wise Classification			
12.	Teachers Media Friends Others	5 9 10 45	7 9 16 68
	Total	69	100
Knowledge on IPR Law Wise Classification			
13.	Yes No	76 44	63 37
	Total	120	100

## II Awareness on Concepts related to IPR

Intellectual property is a significant issue for many students, not only for the successful completion of their academic course, but as importantly, to ensure students understand how ideas are recognized and protected, to prepare them for the growing world of enterprise and innovation beyond graduation. Hence an attempt is made to analyze whether the students know the concept on Intellectual Property Rights or not. Without knowing the concept, they will be unable to protect their invention. If they aware the benefits of IPR, the awareness will itself will lead them to research and innovation

Table 2 shows the overall scores on the statements Concept related awareness.

**Table 2 Score on Awareness Statements**

Sl.No	Statements	SA	A	NO	DA	SDA
1	I Know the Term Intellectual Property	320	104	48	18	5
2	I know the concept in my school days	135	160	87	36	6
3	IPR is a well known concept	125	152	105	32	6
4	I think IPR is not related to me	165	120	99	32	8
5	I know the benefits of IPR	90	160	120	38	3
6	I know components of IPR	100	180	96	30	8
7	I know the IPR law & its regulations	115	140	105	36	9

From Table 2 shows the agreement level of the respondents on each statement.

Majority of the students strongly agreed on the statements 'I Know the Term Intellectual Property', 'I think IPR is not related to me', which have highest score

The statements 'I know the concept in my school days', 'IPR is a well known concept', 'I know benefits of IPR', 'I know components of IPR' and 'I know the IPR law & its regulations' were simply agreed by respondents.

### HYPOTHESIS I

Null Hypothesis: Opinion regarding Statements on Concept awareness are equal to Average level

**Table 3**  
**t test for Specified value (Average = 3) of Statements on Concept Awareness**

Statement on concept awareness	Mean	SD	t value	P value
1.I know the term Intellectual Property	2.04	1.041	-13.041	.000**
2. I know the concept in my school days	2.42	1.053	-7.788	.000**
3. IPR is a well know concept	2.51	1.080	-6.483	.000**
4.I think IPR is not related to me	2.54	1.046	-6.220	.000**
5.I know the benefits of IPR	2.54	1.022	-6.368	.000**
6.I know the components of IPR	2.44	1.050	-7.544	.000**
7.I know the IPR law & its regulations	2.47	1.070	-7.005	.000**

**Source:** computed from Primary Data

Since P value is less than 0.01 the null Hypothesis is rejected at 1% level of significance with regard to all these statements on concept awareness. Hence the opinion regarding all these statements on Concept Awareness are not equal to average level Based on mean scores, the opinion regarding all these statements on Concept awareness are above average level.

### SUGGESTION

In the current knowledge-driven, private sector oriented economic development paradigm, the different types of intangible assets of a business are often more important and valuable than its tangible assets. A key subset of intangible assets is protected by what are labelled collectively as intellectual property rights (IPRs). These include trade secrets protection, copyright, design and trademark rights, and patents, as well as other types of rights. IPRs create tradable assets out of products of human intellect, and provide a large array of IPR tools on which businesses can rely to help drive their success through innovative business models. Hence it is essential that students being strong pillars of the society must be motivated on Research and innovation for which IPR knowledge is mandatory.

### CONCLUSION

In today's world, the IPR system plays a vital role in the economic growth strategies of countries in all stages of development worldwide. The IPR system helps to spur innovation and create a relationship of trust, both of which are crucial for creating and delivering better goods and services to users and consumers. By fostering fair play in the marketplace, the IPR system benefits users, consumers and society at large by supporting the creation of innovative, new and improved products and knowledge that improves the quality of life of peoples worldwide

### REFERENCE

1. Ordover, J. A., (1991); "A Patent System for Both Diffusion and Exclusion". Journal of Economic Perspectives, Volume5, Issue 1 (Winter 1991), 43-60.
2. David, P. A., (1993) "Intellectual Property Institutions and the Panda's Thumb, Copyrights, and Trade Secrets in Economic Theory and History".

3. Ferrantino, M.J. (1993) '**The Effect of Intellectual Property Rights on International Trade and Investment**'. *WeltwirtschaftlichesArchiv*129: 300–31.
4. Arundel, A., G. van de Paal and L. Soete (1995), **Innovation Strategies of Europe's Largest Industrial Firms**, MERIT, Maastricht.
5. Mansfield, E (1986), "**Patents and Innovation: and Empirical Study**", *Management Science* 32(2): 173-81
6. **Wesley M. Cohen, Richard R. Nelson and John P. Walsh (2000)** , "**Protecting their intellectual assets: appropriability conditions and why U.S. manufacturing firms patent (or not)**", NBER working paper series, Working paper 7552, National bureau of economic research.