

# **CREATIVE WORKS AND PROTECTING THEM UNDER FORMAL INTELLECTUAL PROPERTY PROVISIONS;**

## **PRACTICAL IP STRATEGY FOR ACADEMICS**

**By**

**Dr. Gopakumar G. Nair**

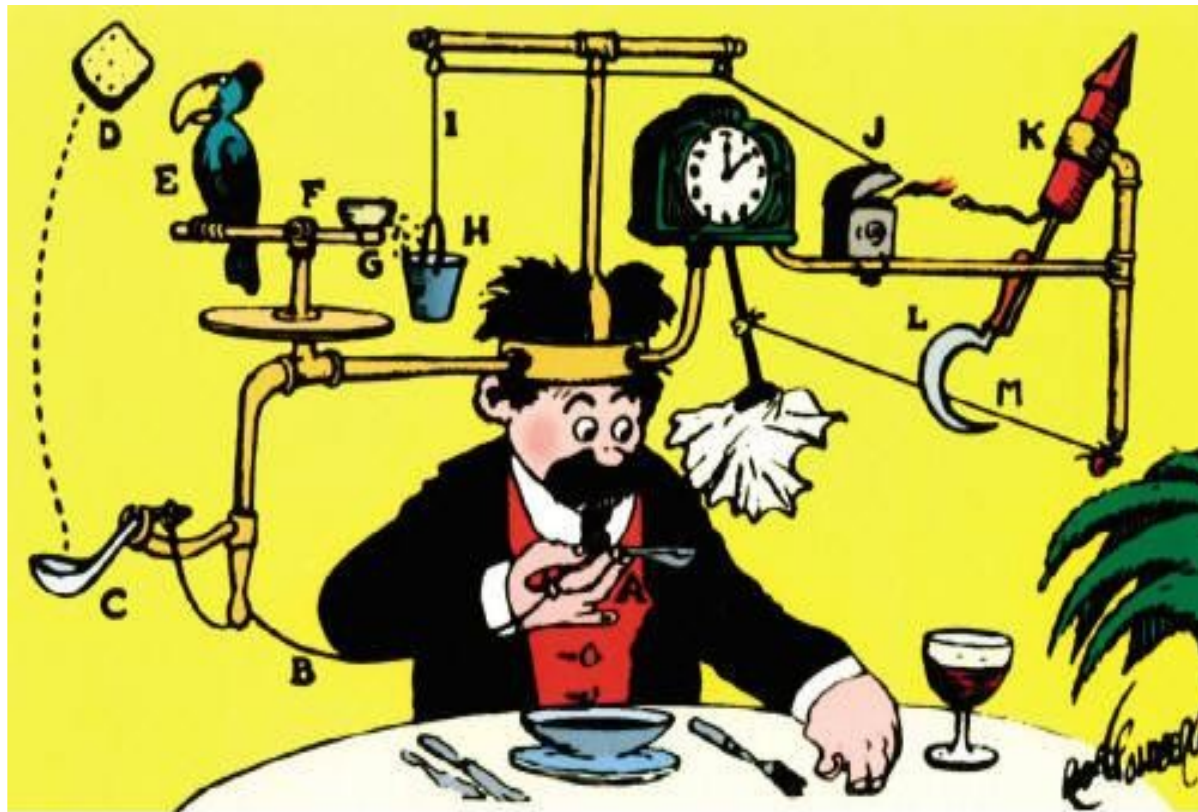
**GNANLex Associates LLP.**

**TechEx.in, Venture Center, Pune.**

**21/01/2023**

# IPRs

**CREATE – PROTECT– OWN –  
ENFORCE /DEFEND**



# INTELLECT – PROPERTY – RIGHT

**CREATIVE  
WORKS**

**Idea**



**Expression**

**Innovation  
/  
Invention**

**Quality +  
Identity**

**Appearance**

**Keep  
Confidential**

**COPYRIGHT**

**PATENT**

**TRADEMARK**

**DESIGN**

**TRADE  
SECRETS**

**Copyright  
Act, 1957**

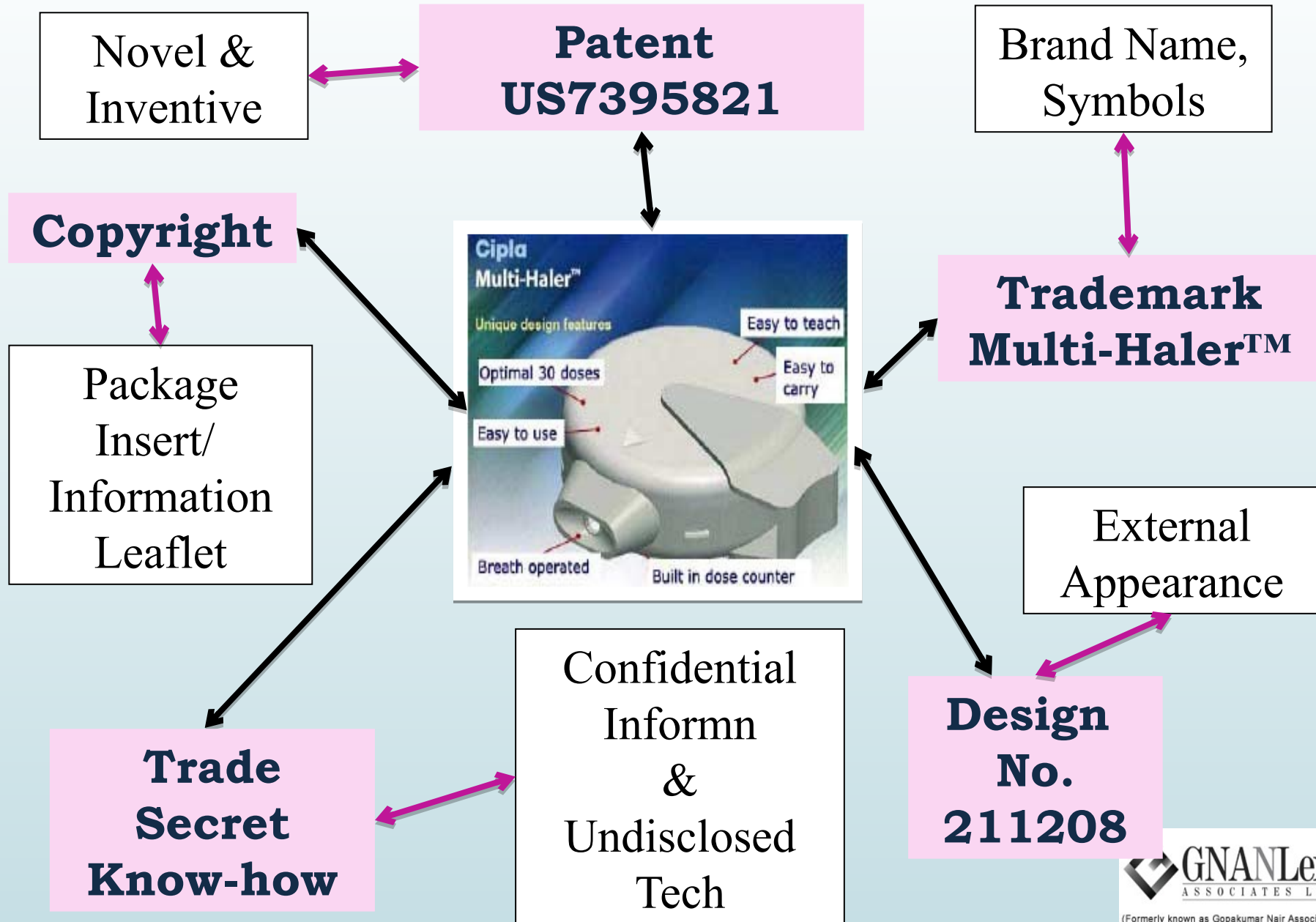
**Patents  
Act, 1970**

**Trademarks  
Act, 1999**

**Designs  
Act, 2000**

**Common  
Law IPC,  
CPC, CrPC**

# IP PORTFOLIO



# NEED-BASED SOLUTIONS

*“The test of an innovation, after all, lies not in its novelty, its scientific content or its cleverness. It lies in its success in the market place”*

- Peter F. Drucker



# MANAGING IP

## Copyrights & Trademarks

- *Starts with Disclosure/Expressions*
- *May Apply for Registration anytime*
- *Plagiarism/Passing off action under Common Law available even without registration.*
- *Infringements suit/injunction relief is available, post registration*
- *Civil and Criminal Remedies*

## Patents & Designs

- *No Disclosure prior to official filing for registration*
- *No Protection, if disclosed, prior to filing for registration*
- *Protection will only be- subject to filing the application/grant*
- *No relief / enforcement if not registered*
- *Technology enters into Public domain/becomes prior art*
- *Infringements suit/injunction relief is available, post registration*
- *Civil Remedies*

# TRADE SECRETS



- Perpetual Protection
- **Almost zero costs / need for high vigilance for protecting**
- No complex registration formalities, strong fire-walls required
- **No public disclosure – No likely(?) copying by competitor.**
- Prone to theft/misappropriation --- cumbersome to prove theft  
(*Prima Facie* evidence) in Courts
- **NDA / Confidentiality Agreements**
- Non-Compete Agreements
- **Once disclosed, Invention (Trade Secrets) cannot be Patented**



*Classified Information*      Confidentiality

**Patent Is A Statutory Right Whereas  
A Trade Secret Constitutes Proprietary Information**

# TRADEMARKS

**Brand Name**

**Identifies owner &  
origin of goods**

**Creates customer satisfaction  
&  
Enhances goodwill**

**Product Recall  
&  
Assures consistent  
quality of goods**

- ✓ **Word Mark**
- ✓ **Device Marks**
- ✓ **(Signs, Symbols, Logos, Color)**
- ✓ **Collective Marks**
- ✓ **Certification Marks**
- ✓ **Service Marks**
- ✓ **Sound Mark (Yahoo, ICICI Bank, Allianz)**



(Formerly known as Gopakumar Nair Associates)



# TRADEMARKS

- *Must be graphically represented*
- *Must be distinctive / distinguishable*
- *Must not be descriptive*
- *Must not be deceptively similar to known /well-known marks /Generics*

*Avoid –*

Geographical Indications / Deities /  
National Leaders / Heroes / Symbols /  
Laudatory words

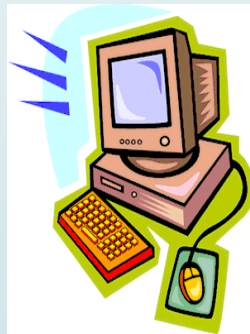
# COPYRIGHTS & RELATED RIGHTS



## IT Revolution !

Recordings  
Broadcasting  
Audio visual works  
Computer programs  
Digital databases  
Internet/web  
Cable and Satellite  
T. V.

Copyright is a legal term describing rights given to creators for their literary and artistic works.



# COPYRIGHT

*“Copyright” / “All rights reserved”*

*“Do not use, reprint, reproduce or distribute  
without prior permission”*

- ✓ Avoid verbatim reproduction (Plagiarism).
- ✓ Always acknowledge / obtain prior permission / quote the source
- ✓ Abstract / Summary may be written in one's own language.

**Copyright violations could lead to criminal/civil suits**

**Could lead to imprisonment too !**

# DESIGNS

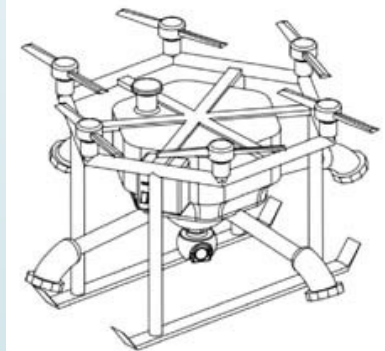
- **Ornamental or Aesthetic** *aspect of an article.*
- **3-D or 2-D features such as shape or surface, patterns, lines or color.**
- *Industrial designs are applied to products of industry and handicraft, technical and medical instruments, watches, jewelry, house wares, electrical appliances, luxury items, vehicles, architectural structures, textile designs.*
- **Does not protect any technical features** *of the article to which it is applied to.*



**Indian Design No  
313543: Hospital Bed  
For Orthopedic  
Patient (SET)**



**Indian Design  
no 303288 :  
ROBOT**





**Indian Design No  
362356: FARM  
ANALYZING ROBOT  
USING INTERNET OF  
THINGS**

# DESIGNS

New or original

Distinguishable from known designs

197685	197686
	
Crocs	



Not publicly known

Not prior published



# DESIGN REQUIREMENTS

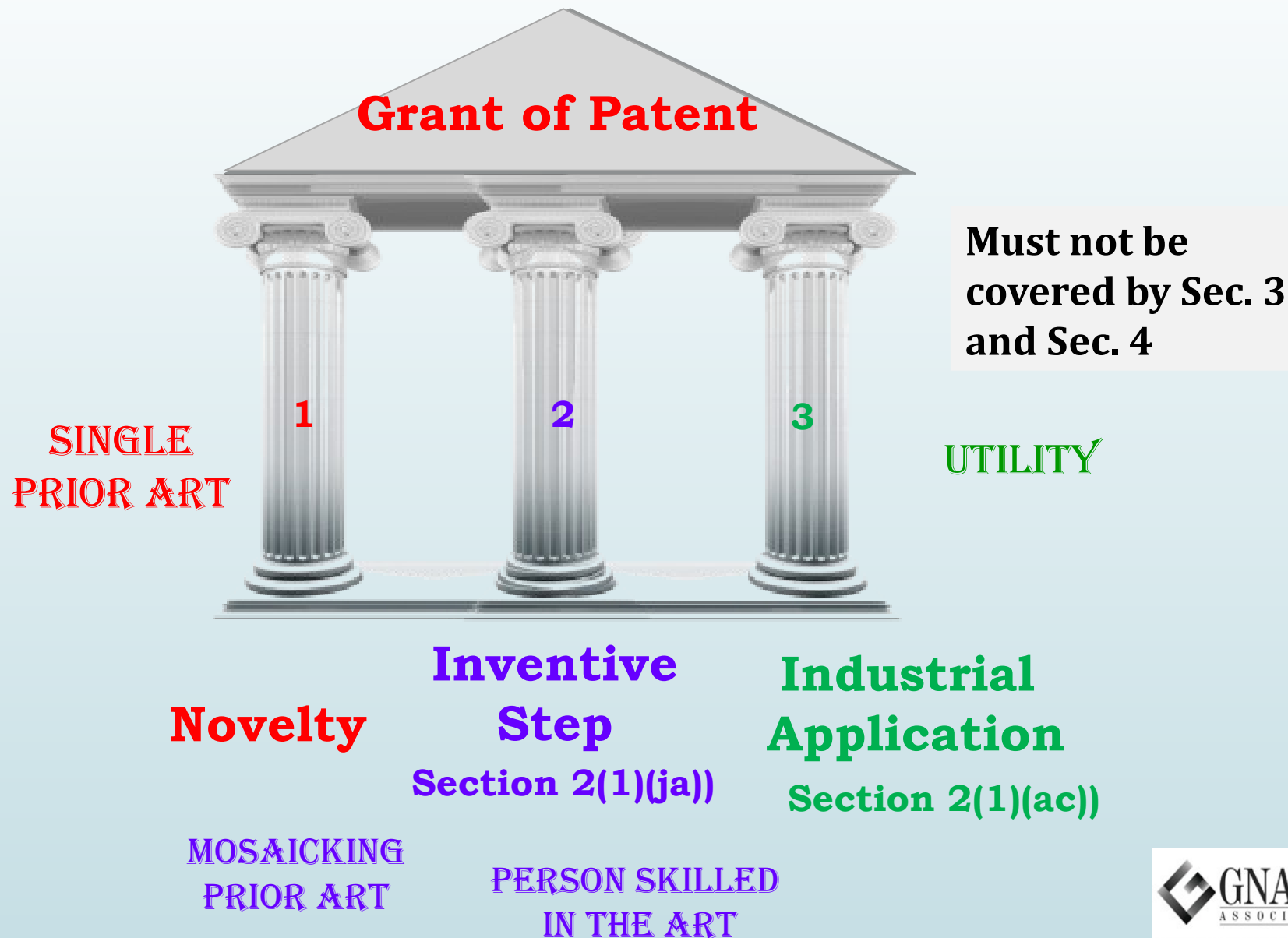
- 1. Form 1 along with representation sheet: Application of registration of Design  
(representation sheet) Drawings / Photos / Perspective views of design (front, top, bottom & back view)*
- 2. Name and address of the person/company*
- 3. Description of the Design*
- 4. Statement of Novelty of Design*
- 5. Disclaimer\**
- 6. Safety and configuration of Design*
- 7. Power of Attorney to be executed in Rs.500/- stamp paper.*
- 8. Form 24: To Be Submitted For Claiming The Status Of A Small Entity Or Startup, if applicable*

# DESIGN GRANT PROCEDURE





# Three Statutory Pillars for Patentability as per the Patents Act, 1970





# PATENT GRANT PROCEDURE

## PRIOR ART SEARCH

Filing of patent application

Provisional

12months

**Abandoned**

Complete

Early Publication

Within 1month

Publication after 18 months

Within 48months

**Deemed to be withdrawn**

Request for examination / Expedited Examination

Within 6 months + 3months

Examination FER and Reply to FER / Hearing

**Deemed to be withdrawn**

Decision By Controller : Grant or Refusal

Publication of Grant of patent

Renewal Fees upto 20years **Cease**

# WHERE TO BEGIN

- ✓ Meeting / Discussions / Brainstorming With Students / Faculty (Potential Inventors)
- ✓ Technical Draft & Experimental Results  
or
- ✓ Thesis / Dissertation / Lab Book
- ✓ Market place



**Samudra Manthan**

**Churning of the Ocean**

# WHAT NEXT

Preliminary Search

Ask for more info

Distinguish from Prior Art



No distinctive features



Return draft

Explain how to proceed

Yes



NOVEL/INVENTIVE

Start drafting

# START DRAFTING

- ✓ Read Technical matter with Prior Art.
- ✓ Find key features of invention.
- ✓ Process/Product/new use/new appln.
- ✓ What constitutes the invention ?
- ✓ What are the gaps/drawbacks in prior art?
- ✓ What problem is being solved ?
- ✓ Start noting down the elements/keywords  
(search once again) (and again)
- ✓ Proceed with drafting  
(Ask more questions; seek more data)

# PATENT CLAIM DRAFTING

Bad Invention



Clever Drafting



Good Patent



Strong Enforcement

Good Invention



Poor Drafting



Bad Patent



Weak Enforcement

# Types Of Patents

- Provisional Application
- **Complete Application**
- Convention Application
- **Patent of Addition (CIP)**
- Cognate Application
- **Divisional Application**
- PCT International Application
- **PCT National Phase Application**

- *Product Patent*
- *Process Patent*
- *NCE/NME/API / Formulation / Dosage Forms*
- *New Use (Repurposing) – Aspirin (analgesic & blood thinner).. COVID19 – Antivirals, anti-malaria, arthritis*
- *Artificial Intelligence (AI), IoT, Machine Learning,*
- *Space / Satellite Technology,*
- *Robotics,*
- *4G / 5G Technology,*
- *Computer Science*
- *Agriculture and many more.....*





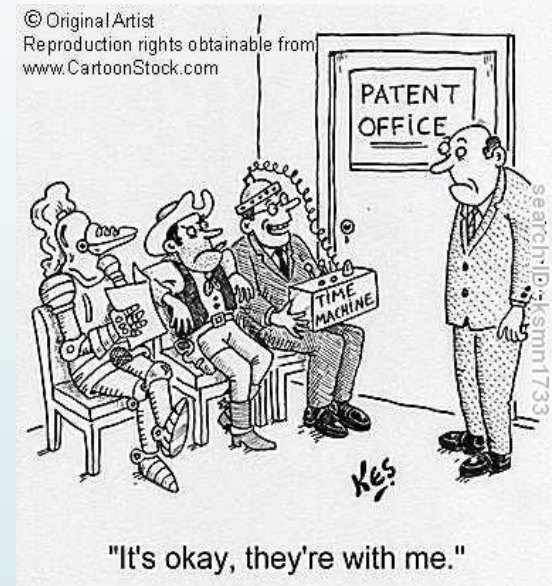
# PATENT FILING, WHY?

- ➡ **Claim ownership**
- ➡ **Monopoly : Right to exclude others**
- ➡ **Sell / License / Assign: Tangible Asset**
- ➡ **Invention is made public**
- ➡ **Encourages further Innovation**
- ➡ **Enforcement: Sue for infringement**



# PATENT FILING STRATEGIES

- Only National Filing
- Only Convention filing (US /EU etc.)
- National + Convention Country
- Only PCT  Any or all 156 States
- National + PCT  Any or all 156 States



~~WORLD PATENTS~~

INTELLECTUAL PROPERTY RIGHTS ARE  
TERRITORIAL

# 80% fee cut for all educational institutions

*On 18th August, 2021, Commerce and industry minister Piyush Goyal announced 80% fee cut for all educational institutions applying for patents in India or abroad.*

*The total fee for filing publication and renewal for an institute will reduce from about Rs 4,24,500 to Rs 85,000, which is a reduction of 80 per cent.*

*Department for Promotion of Industry and Internal Trade (DPIIT) has been asked to start the process of approval of this announcement.*

**Mr. Goyal also suggested to include IPR in in the curriculum**

Source: <https://www.news18.com/news/education-career/80-fee-reduction-for-all-educational-institutions-applying-for-patents-minister-4098440.html>

# Patents (Amendment) Rules, 2021 in force 21st September, 2021

Number of Entry	On what payable	Number of the relevant Form	For e-filing		For physical filing	
			Natural person(s) or Startup(s) or Small entit(y)/(ies) or educational institution(s)	Other(s), alone or with natural person(s) or Startup(s) or Small entit(y)/(ies) or educational institution(s)	Natural person(s) or Startup(s) or Small entit(y)/(ies) or educational institution(s)	Other(s), alone or with natural person(s) or Startup(s) or Small entit(y)/(ies) or educational institution(s)
1.	On application for a patent under sections 7, 54 or 135 and rule 20(1) accompanied by provisional or complete specification—  (i) for each sheet of specification in addition to 30, excluding sequence listing of nucleotides and/ or amino acid sequences under sub-rule (3) of rule (9); (ii) for each claim in addition to 10; (iii) for each page of sequence listing of nucleotides and/ or amino acid sequences under sub-rule (3) of rule (9).	1	1600 Multiple of 1600 in case of every multiple priority. (i) 160  (ii) 320 (iii) 160 subject to a maximum of 24000	8000 Multiple of 8000 in case of every multiple priority. (i) 800  (ii) 1600 (iii) 800 subject to a maximum of 120000	1750 Multiple of 1750 in case of every multiple priority. (i) 180  (ii) 350 Not allowed	8800 Multiple of 8800 in case of every multiple priority. (i) 880  (ii) 1750 Not allowed

# INNOVATIONS / INVENTIONS

## 'How's / 'Why's / 'From'

- ✓ **Necessity** ----- from  
Market place / User /  
Needy
- ✓ **Expertise** ----- In-house /  
Available Technologies
- ✓ **Compulsions** -----  
Competitions /  
Constraints
- ✓ **Incremental Innovations**  
-- prior art based

- ✓ **Serendipity** -----  
Accidental, often path-  
breaking
- ✓ **Disruptive Innovations** -----  
Breakthrough



# INNOVATION is the Platform and the Bridge



**B2B**

**B2C**

## Industry with Academia

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## Leading to Successfully Collaboration

*Industry academia collaboration can turn India into  
skill capital of the world:*

*Shri Dharmendra Pradhan, Minister of Education*



# ACADEMIA - INDUSTRY COLLABORATION

Research area	Company	Academia
<i>Advanced applied research in autonomous systems, robotics and 5G space</i>	<i>Wipro Limited</i>	<i>Indian Institute of Science (IISc)</i>
<i>Advanced applied research in 5G and AI</i>	<i>Wipro Limited</i>	<i>Indian Institute of Science (IISc)</i>
<i>From traffic estimation and dynamic control of traffic lights, anti-cancer drug research, intrusion detection system to power management for electric vehicles and liquid crystals in solar cells</i>	<i>Samsung</i>	<i>IIT Guwahati</i>
<i>EV project</i>	<i>Tata Motors</i>	<i>IIT Bombay</i>
<i>Research in space-related technology and applications thereof</i>	<i>India's space research organisation (ISRO)</i>	<i>Various academic institutes across India</i>

# ACADEMIA - INDUSTRY COLLABORATION

Name of Molecule	Company marketing the drug	Invented by
<b>Molnupiravir</b>	<b>Merck &amp; Co.</b>	<b>Emory University</b>
Trastuzumab	Roche	Genetech & University of California, Los Angeles (UCLA).
Enzalutamide	Medivation / Astellas	University of California/ Pfizer
Trabectedin	Zeltia and Johnson and Johnson	University of Illinois
Rituximab	Biogen Idec, Genentech and Roche	IDEC / Biogen Idec Pharmaceuticals
Infliximab	Janssen Biotech.	New York University School of Medicine, Centocor.
Ipilimumab	Medarex and BMS	Dr. Jim Allison of University of California, Berkeley
Adalimumab	Abbott Laboratories.	BASF/ Cambridge Antibody Technology (CAT)

# Mumbai Student Designs "Cool PPE Kit" With Ventilation For Covid Warriors

Nihaal Singh Adarsh, a second-year student of KJ Somaiya College of Engineering, Mumbai has developed a belt-like wearable ventilation system for PPE kits.

All India | ANI | Updated: May 23, 2021 9:00 pm IST

*His Mother's  
(a doctor)  
struggle  
during  
treatment of  
COVID-19  
patients  
inspired him*



Image tweeted by @RNagothu

Cov-Tech Ventilation System which comes with a lithium-ion battery that lasts for 6 to 8 hours.

<https://www.ndtv.com/india-news/mumbai-student-nihaal-singh-adarsh-designs-cool-ppe-kit-with-ventilation-for-covid-19-warriors-2447975>





Office of the Controller General of Patents, Designs & Trade Marks  
Department of Industrial Policy & Promotion,  
Ministry of Commerce & Industry,  
Government of India



### Application Details

APPLICATION NUMBER	202021028131
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	07/07/2020
APPLICANT NAME	Watt Technovations Private Limited
TITLE OF INVENTION	A COMFORTABLE USER FRIENDLY PERSONAL PROTECTION EQUIPMENT (PPE) SUIT WITH AN APPARATUS
FIELD OF INVENTION	BIOTECHNOLOGY
E-MAIL (As Per Record)	ipr@gnanlex.net
ADDITIONAL-EMAIL (As Per Record)	gopanair@гнаipr.net
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	04/02/2022

**Inventor**  
**ADARSH, Nihaal Singh**

### Application Status

APPLICATION STATUS	Awaiting Request for Examination
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### Application Details

APPLICATION NUMBER	202021025830
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	19/06/2020
APPLICANT NAME	1 . BHAGVATIBA DHARMENDRASINH JADEJA 2 . GAUTAM LIMBADIYA
TITLE OF INVENTION	A PROCESS FOR PREPARATION OF HANDWASH FROM NATURAL INGREDIENTS AND A PRODUCT THEREOF
FIELD OF INVENTION	CHEMICAL
E-MAIL (As Per Record)	admin@acuraip.com
ADDITIONAL-EMAIL (As Per Record)	djjjadeja063@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	19/06/2020
PUBLICATION DATE (U/S 11A)	27/05/2022
FIRST EXAMINATION REPORT DATE	04/07/2022
Date Of Certificate Issue	07/12/2022
POST GRANT JOURNAL DATE	09/12/2022
REPLY TO FER DATE	28/07/2022

### Application Status

APPLICATION STATUS	<b>Granted Application, Patent Number :413807</b>
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[E-Register](#)[View Documents](#)

We Claim:

1. A process for preparation of handwash from natural ingredients comprising:
  - a. separating aloe vera pulp from aloe vera leaves;
  - b. grinding of aloe vera pulp and mixing it with water in the ratio of 1:4 to make a aloe vera gel;
  - c. boiling of aritha fruit with water in the ratio of 1:2 aritha to water weight/weight ratio at a temperature range of 162°C – 190°C to make a aritha liquid;
  - d. mixing the aloe vera gel with the aritha liquid in the ratio of 1:1 aloe vera gel to the aritha liquid to make a uniform mixture;
  - e. adding group comprising at least one of rose water, neem powder, lemon extract, sandal powder, coconut oil to the uniform mixture of step(d), the ratio of rose water, neem powder, lemon extract, sandal powder, coconut oil to the uniform mixture of step(d) is 1:4, 1:40, 1:10, 1:40, 1:10 respectively.
2. A handwash consisting the ingredients:
  - a. sapindus mukorossi liquid (aritha liquid);
  - b. azadirachta indica powder (neem powder);

## This techie can make money from smoke

Sep 7, 2012, 09.36 PM IST



When the best brains in the science, economics and politics are still debating and undecided about the moral justification of global carbon credits, a 23-year-old engineer has found a way to convert industrial emissions to cash – well not by selling smoke of course, but by converting the CO<sub>2</sub> emission into a precious compound called carbon nanotubes (CNT).

Vivek Nair, a bio-engineering graduate from Tanjore in Tamil Nadu, says he has already patented the technology that converts industrial chimney waste into CNT at a fraction of the price it is globally traded now. What makes Nair's story even more interesting is that he has already ducked some alluring multi-million dollar offers from a foreign manufacturer for his technology. While he is building up his business, he is also pursuing a double doctorate from a university in the US and another in Singapore.





Office of the Controller General of Patents, Designs & Trade Marks  
Department of Industrial Policy & Promotion,  
Ministry of Commerce & Industry,  
Government of India



#### Application Details

APPLICATION NUMBER	1726/MUM/2011
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	13/06/2011
APPLICANT NAME	NAIR , VIVEK SAHADEVAN
TITLE OF INVENTION	"PROCESS FOR PRODUCTION OF CARBON NANOTUBES (CNTS) FROM INDUSTRIAL EXHAUST"
FIELD OF INVENTION	CHEMICAL
E-MAIL (As Per Record)	
ADDITIONAL-EMAIL (As Per Record)	gopanair@gnair.net
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	05/10/2012
PUBLICATION DATE (U/S 11A)	14/12/2012
FIRST EXAMINATION REPORT DATE	20/06/2017
Date Of Certificate Issue	13/02/2018
POST GRANT JOURNAL DATE	16/02/2018
REPLY TO FER DATE	30/10/2017

#### Application Status

APPLICATION STATUS	Granted Application, Patent Number :292853
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## **I claim,**

1. A recyclable catalytic composition comprising a combination of alpha form of ferrous oxide and gamma form of ferric oxide magnetic nanoparticle in the ratio 1:4, 3:7, 1:1, 7:3 and 4:1 embedded onto the inert substrate for the conversion of industrial and vehicular flue gases into carbon filaments at low temperature and optionally under magnetic field.
2. The catalyst composition according to claim1, wherein the temperature is in the range of 90°C-200°C.
3. The catalyst composition according to claim1, wherein the temperature is in the range of 90°C-150°C.
4. The catalyst composition according to claim1, wherein the carbon filaments comprises carbon nanotubes, carbon Nanofibers, carbon microfibers, Carbon Nanorods, Carbon Nanoheads, carbon nanoparticles and such like either alone or

# Indian & US patents awarded to student of Jindal Global Law School



Devansh Manoj Jalan, a student of Jindal Global Law School (BBA-LLB 2016), has received Indian and US patents for a technology he invented entitled 'Method and System for Managing the Usage of a Plurality of Battery Units to Power an Electric Vehicle'. This technology aims to make the usage of electric vehicles more practical, flexible and economical in India and other developing countries. He has been granted the US Patent on 29 September 2020 and the Indian Patent on 6 October 2020. His Patent Cooperation Treaty application reserves him the right to patent this technology in 153 other countries.

# FURMAN NEWS

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## *Professor, student patent research breakthrough, start company on campus*

*Last updated October 14, 2019*

*By News administrator*

Furman Professor of Chemistry [Greg Springsteen](#) and Trent Stubbs '20 haven't found the origin of life (yet). What they have found, however, has the potential to help save ones already here, which, as consolation prizes go, is pretty good.

In January, Springsteen and Stubbs filed two provisional patents for a chemical process that produces molecules critical to [metabolic flux analysis](#), an emerging technology able to rapidly diagnose cancer and bacterial infections. [Metabolic flux analysis](#) relies on [Carbon 13](#) ( $^{13}\text{C}$ ), an isotope of the element carbon, to create labels that help track the growth, metabolism and movement of cells, but existing methods for generating many of these [labeled compounds](#) rely on expensive and inefficient biological pathways.

The technique developed by Springsteen and Stubbs, however, can accomplish the same transformations synthetically in a chemistry flask. The resulting molecules are higher in purity and have the potential to lower the price of the diagnostic agents by an order of magnitude. The implications for research and health care are significant.





**anand mahindra** ✓

@anandmahindra · [Follow](#)



How cool is this? The device not only seems effective & does the job, but also looks elegantly designed with a minimum of weight.

[@rajesh664](#) can your team look at this more closely & see whether we can market Mr. Bhat's device as part of our Farm solutions portfolio?



**ANI** ✓ @ANI

#WATCH Mangaluru: Ganapathi Bhat, farmer from Sajipamooda village, has developed a machine that helps in climbing arecanut tree; says, 'It's simple innovation, climber (60-80kg) can climb upto 80 trees using litre of petrol on avg. Gave priority to safety while developing it. #Karnataka



2:39 PM · Jun 18, 2019



***"The most creative innovations are not beating someone else or being number one, but learning what the world is asking of you and creating in that arena."***

**- Psychology Today editor Sam Keen**

## **Jugaad**



**E-Rickshaw Driver's Social  
Distancing Innovation. To maintain  
social distancing between his  
passengers, an e-rickshaw driver,  
divided the vehicle into  
compartments**

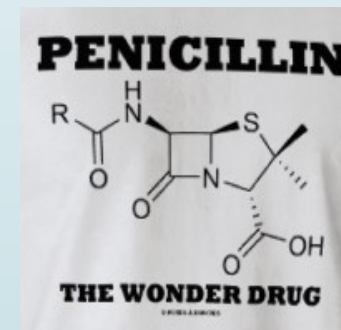
**Hands-free washing**

**Biplab Kumar Ghosh from  
Odisha Gets President's Tea  
Party Invitation For His Agri  
Innovation**



# SERENDIPITY

- Velcro
- Super Glue (Cyanoacrylate)
- X-ray
- Radioactivity
- Microwave
- Penicillin



*"In The Field Of Observations, Chance Favours  
Only The Prepared Mind."*

**- Louis Pasteur**



# INCREMENTAL INNOVATIONS

► Based on Existing Knowledge

► Usual Source

- ✓ *Internet*
- ✓ *In-house R&D*
- ✓ *Market needs*



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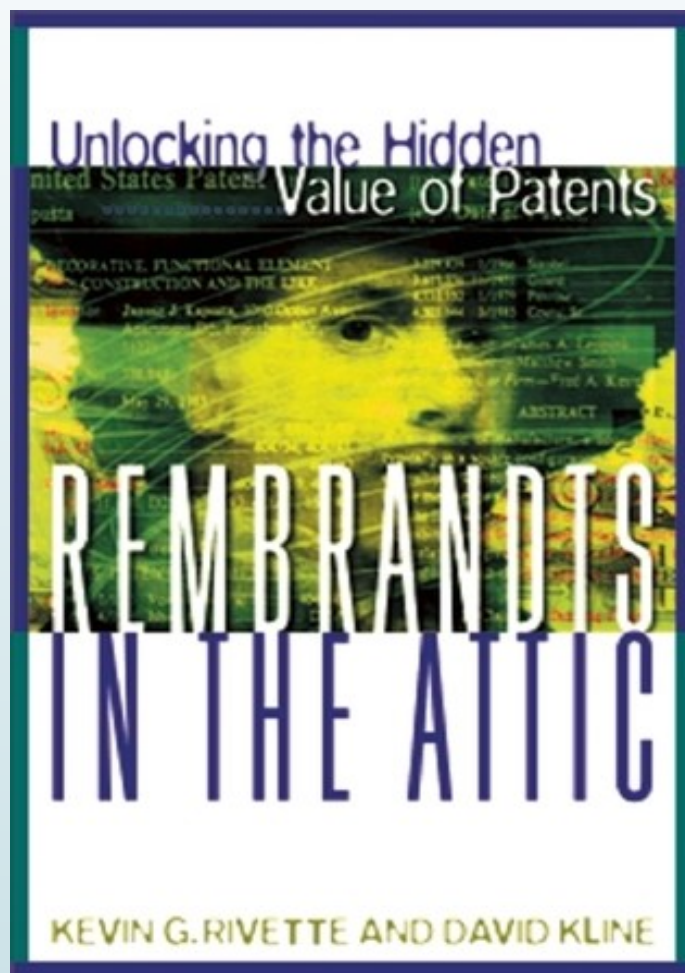
► Drug Discovery Research

► Based on 'Out of Box'



- ✓ *Creative thinking*
- ✓ *Visualization*
- ✓ *Beyond Horizons*

# UNLOCK HIDDEN VALUE OF THE IPR



*“survival of the fittest will mean mastering the secrets of intellectual property and, like modern-day alchemists, using these to turn knowledge into gold.”*