

# RESEARCH METHODOLOGY



## Unit-05:

### Research Proposals, Ethics, Reference Management Software

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# RESEARCH METHODOLOGY

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**Topics: Research Proposals  
Ethics, Reference Management Software**

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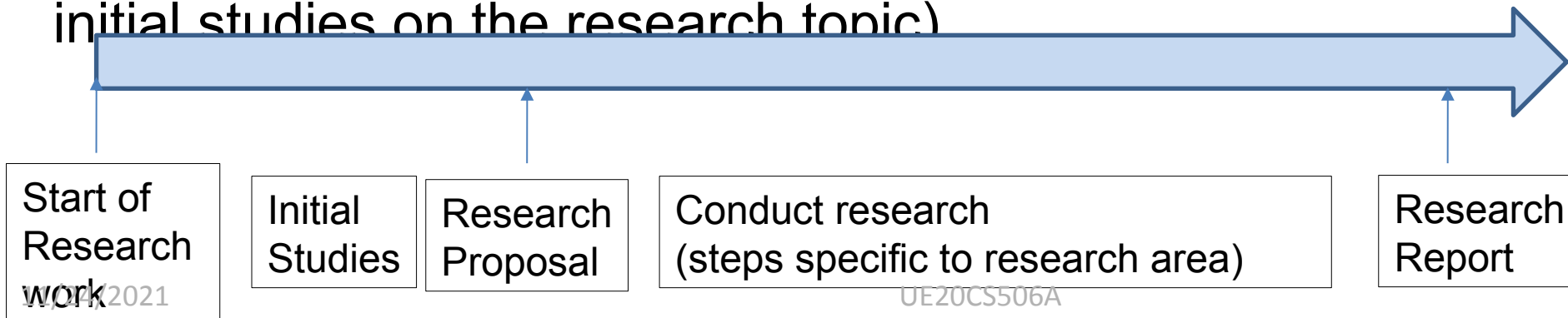
# What is a research proposal?

- Statement of intent on

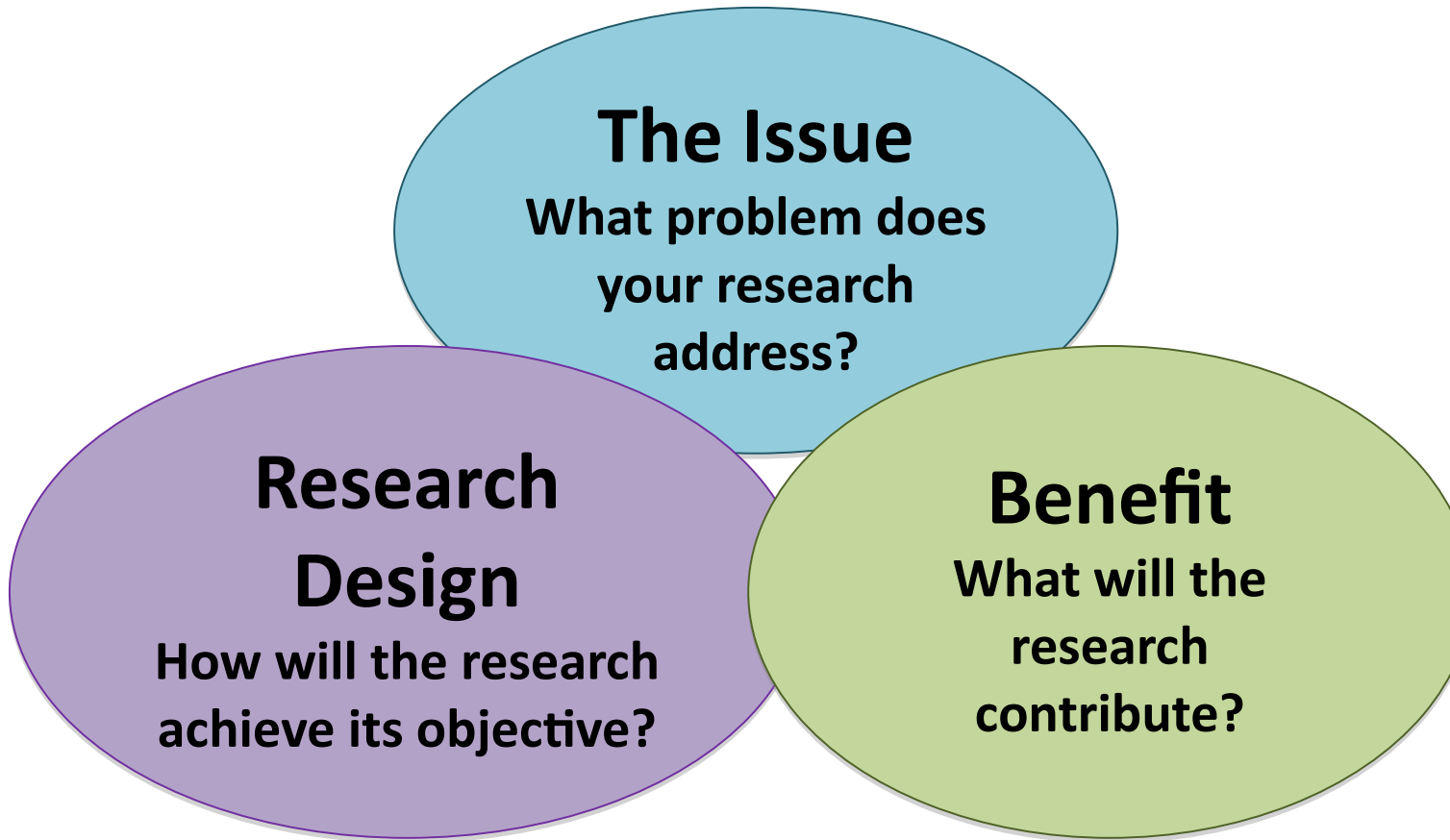
- What is the study going to be about
- Why the study is important
- How is it going to be conducted (tentative)
- Some insights into the results (tentative)

- A research proposal is a PLAN

- concise and coherent summary of your proposed research
- It describes study that is conducted/performed
- Submitted to a panel/committee at the start of the research (after some initial studies on the research topic)



# What are the essential ingredients?



Research Proposal is a plan with sufficient level of details

What the study is about (issue)

How the study is going to be conducted?

What will be the benefits

(some insights into the results)

This helps having a clearer thought process on micro level details

This is done in the beginning phase of the Research work

- use future tense

Once the research work is complected, We prepare the Research Article/Report/Pape Thesis/Dissertation

- use past tense

## Research proposals –

### How it helps in taking Research Work forward

- Formalizes the context/background
  - Based on the extensive literature survey
- Justify the research (to be done early in research, otherwise to the end it will be difficult to find proper justification)
- Outline the detailed steps in the proposed research
- Think through design/methods/experiments
  - (specific to the research area)
- Anticipate potential Problems
- Anticipate a realistic timeline

# Problem statement

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- E.g.

Malaria remains the most devastating infectious disease, particularly in Africa.

One reason is that the parasite causing the disease is resistant to all clinically used antimalarial drugs.

We therefore have to devise alternative strategies to target the parasite.

# Format/Part of Research Proposal

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- Literature Review
- Aims/Objectives
- Proposed Methodology
  - Justify your method choice
  - Show you understand the principles
  - Prove feasibility of your study
- Proposed Experimental Design
- Timeline -> (In research proposal, not in research paper/thesis)
- Budget (if applicable) -> (In research proposal, not in research paper/thesis)

# Timeline

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- Helps you keep your experimental design in the correct order
- Avoids “dead” time
- When building your timeline
  - Consult with other students in your lab that have done similar studies



# Budget

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- Gives an appreciation of research costs
- Prevents overspending!
- Provide specific explanations for:
  - Need for specific technologies
  - Need for other financial requests (e.g. conference, instrumentation, staff, bursaries etc).
  - Do you really need this kit?

## ETHICS

- Science (Discovery, Invention, Detailed Studies) are built on trust
- Research/Scientists need/expected to be honest
- Code of Ethics
  - <http://www.acm.org/about/code-of-ethics>
  - <http://www.ieee.org/about/ethics.html>
- Ethics (to be considered as a foundation)
- Authenticity and Accuracy
  - Only report data for which data collection /experimentation/measurement etc has been carried out.
- Originality (present only results which we have generated)
  - Give proper citation for information obtained from other's work

- Give Credits
- Good scientists build on each other's work.
- They do not, however, take credit for others' work.
- *"If I have seen further than other men, it's because I have stood on the shoulders of giants"*, Sir Isaac Newton.
- Plagiarism : the appropriation of another person's ideas, processes, results, words, figures, illustrations without giving appropriate credit
- Citation by itself is not sufficient. It is necessary to indicate exactly what material is taken from the reference, and to identify that material as a quote.
- How to avoid Plagiarism: Consider drafting paragraphs without looking directly at the source materials; then look at the materials to check for accuracy.

- Self-plagiarism: re-use own text.
- Using same text twice => publish the same work twice
- Even we shouldn't make use of Background material
  - Information become stale
- Results
  - Accurate and reproducible.
  - Describe issues & limitations.
  - Report both positive and negative results.
- Authorship: Give due credits to who have made significant contributions to the intellectual content of the paper.
  - Conception, Execution, Interpretation of Results.

- Ethical treatment of humans and animals
- Disclosure of conflicts of interest
  - Commercial relations to be disclosed to editors
  - Referee of papers, grant proposals, examination of thesis.
  - Blind reviews (authorship is removed from the paper) is a way to avoid conflict of interest
  - Authors don't know the reviewer identity

- ACM Code of Ethics

- <https://www.acm.org/binaries/content/assets/about/acm-code-of-ethics-booklet.pdf>
- <https://www.acm.org/code-of-ethics>
- 1. GENERAL ETHICAL PRINCIPLES.
  - 1.1-1.7
- 2. PROFESSIONAL RESPONSIBILITIES.
  - 2.1-2.9
- 3. PROFESSIONAL LEADERSHIP PRINCIPLES.
  - 3.1-3.7
- 4. COMPLIANCE WITH THE CODE.
  - 4.1-4.2

- IEEE Code of Ethics

- The Ten Commandments of Computer Ethics

- [https://en.wikipedia.org/wiki/Ten\\_Commandments\\_of\\_Computer\\_Ethics](https://en.wikipedia.org/wiki/Ten_Commandments_of_Computer_Ethics)

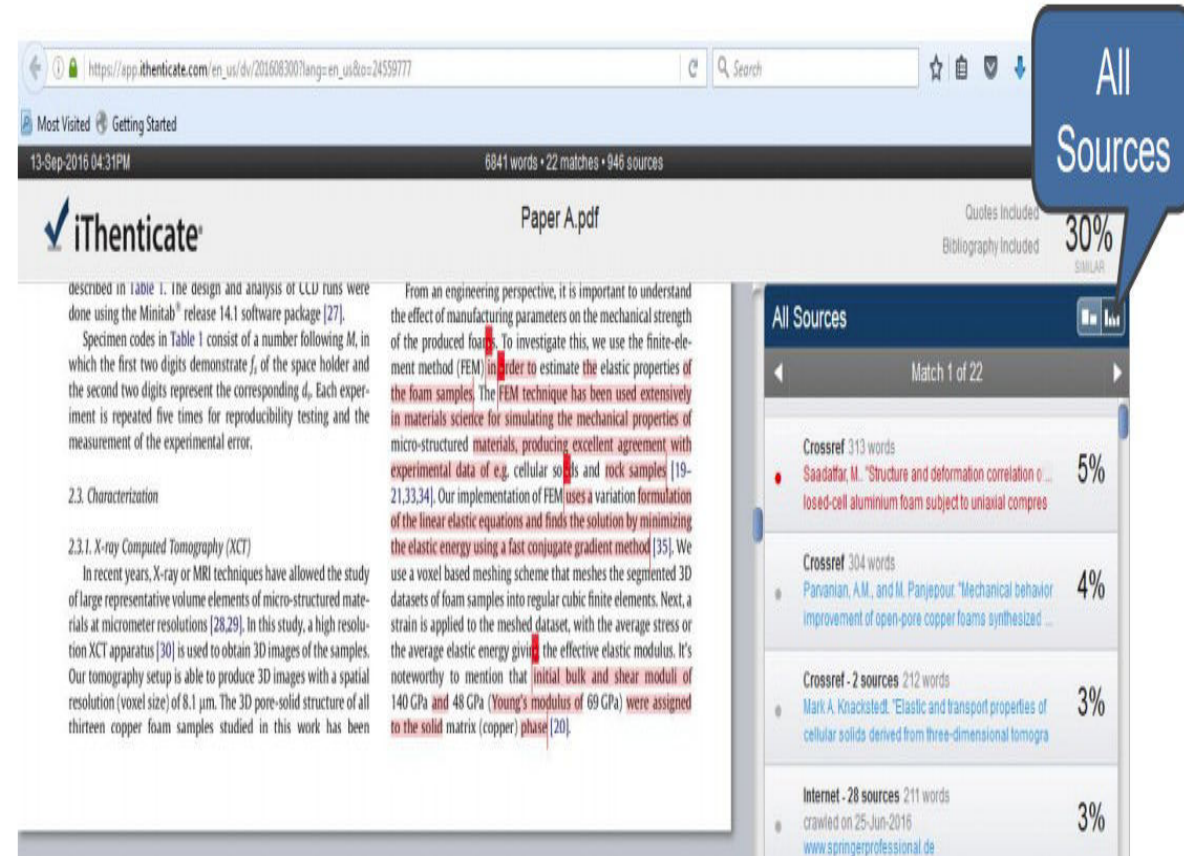
- 1) Thou shalt not use a computer to harm other people.
- 2) Thou shalt not interfere with other people's computer work.
- 3) Thou shalt not snoop around in other people's computer files.
- 4) Thou shalt not use a computer to steal.
- 5) Thou shalt not use a computer to bear false witness.
- 6) Thou shalt not copy or use proprietary software for which you have not paid (without permission).
- 7) Thou shalt not use other people's computer resources without authorization or proper compensation.
- 8) Thou shalt not appropriate other people's intellectual output.
- 9) Thou shalt think about the social consequences of the program you are writing or the system you are designing.
- 10) Thou shalt always use a computer in ways that ensure consideration and respect for other humans.



# Plagiarism

- What is Plagiarism
- Ethical Issue
- How to avoid
- Software to detect plagiarism
  - Turnitin ([Empower Students to Do Their Best, Original Work | Turnitin](#))
  - Similarity (Cross) Check / iThenticate (Elsevier)
  - Many **others**
  - Indicates which parts of the documents have common wordings, phrases.
  - Give a measure of similarity (similarity index)
  - Overall Similarity
  - Per document similarity

## Similarity (Cross) Check “Document Viewer”



The screenshot shows the iThenticate web interface. The main document, "Paper A.pdf", is displayed with a similarity score of 30%. A sidebar on the right lists the sources contributing to the similarity, including Crossref and Internet sources. A blue callout bubble points to the "All Sources" link in the sidebar.

**Document Viewer: Paper A.pdf**

13-Sep-2016 04:31PM | 6841 words • 22 matches • 946 sources

**Similarity Report:**

- Quoted Included: 30%
- Bibliography Included: 30%

**All Sources:**

| Source   | Words | Similarity |
|--|-------|------------|
| Crossref - 313 words   | 313   | 5%         |
| Saadatfar, M. "Structure and deformation correlation of..."  |       |            |
| lost-cell aluminium foam subject to uniaxial compression   |       |            |
| Crossref - 304 words   | 304   | 4%         |
| Parvian, A.M., and M. Panjepour. "Mechanical behavior improvement of open-pore copper foams synthesized..."            |       |            |
| Crossref - 2 sources 212 words   | 212   | 3%         |
| Mark A. Knackstedt. "Elastic and transport properties of cellular solids derived from three-dimensional tomography..." |       |            |
| Internet - 28 sources 211 words  | 211   | 3%         |
| crawled on 25-Jun-2016   |       |            |
| www.springerprofessional.de  |       |            |

# Plagiarism (Cosine similarity )

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- Measures the similarity between documents
- Commonly used in plagiarism detection
- The cosine similarity is a number between 0 (dissimilar) and 1 (similar)
- Human Interpretation is need to examine why similarity index is high
  - High similarity index does not necessarily mean content is plagiarized
- Should be used as guidance to improve the document content

# Plagiarism (Cosine similarity )

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- A document is represented vector of size  $n$ 
  - where  $n$  is the number of unique words in the documents in question.
- Each element of the vector represents the frequency of occurrence of a word in the document. Eg. Given,  $X = (1, 2, 0, 0, 3, 4, 0)$  and  $Y = (5, 0, 0, 6, 7, 0, 0)$ .
  
- Documents are 45% similar(or similarity index is 45%)

## Reference Management Tool

# Reference Management Tool

- When we refer to other work in our report, we need to give proper detail of other work in a standardized manner

- Eg 

Proponents of TDD claim that this process promotes both internal and external product quality, as well as developer productivity. Since its popularization in the early 2000s, TDD has been the focus of many empirical studies that have investigated its effectiveness [2], [3], [4], [5], [6], [7], [8].

## REFERENCES

- [1] K. Beck, *Test-Driven Development By Example*. Addison-Wesley, 2003.
- [2] H. Erdogmus, M. Morisio, and M. Torchiano, "On the Effectiveness of the Test-First Approach to Programming," *IEEE Transactions on Software Engineering*, vol. 31, no. 1, pp. 226–237, mar 2005.
- [3] L. Madeyski, "The impact of Test-First programming on branch coverage and mutation score indicator of unit tests: An experiment," *Information and Software Technology*, vol. 52, no. 2, pp. 169–184. 2010.

# Why use a reference management tool?

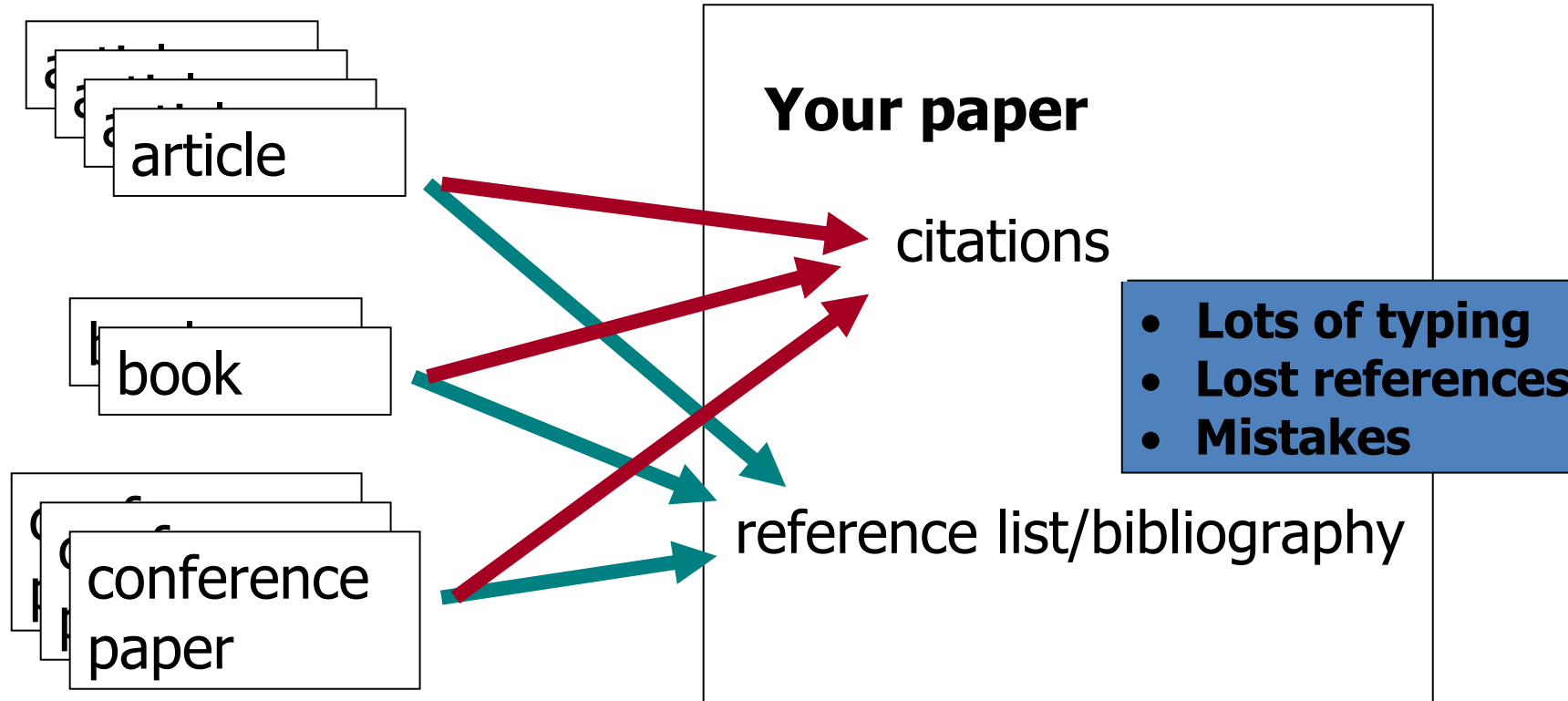
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- Tool helps you manage your bibliographic resources and integrates with your word processing software - to generate in-text citations and bibliographies
- Tool saves bibliographic data of information resources from online databases.
- It makes it easier to automatically switch to different citation styles (e.g. Vancouver to MLA or APA)
- You can sync saved references across multiple devices such as desktops, laptops and tablets – so that you can access the references from any device

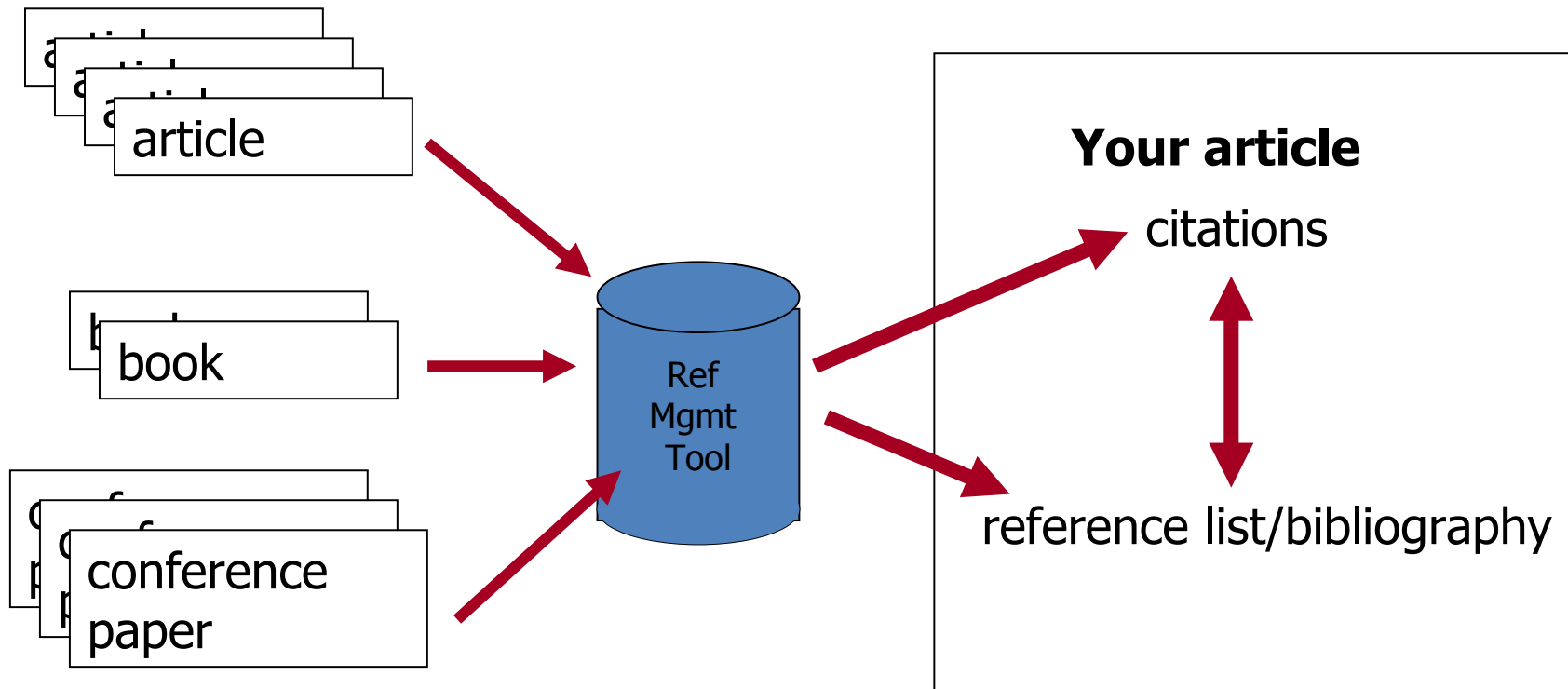
# Problem statement...

Manual Method of  
handling citations

Your topic:



# Use a reference management tool

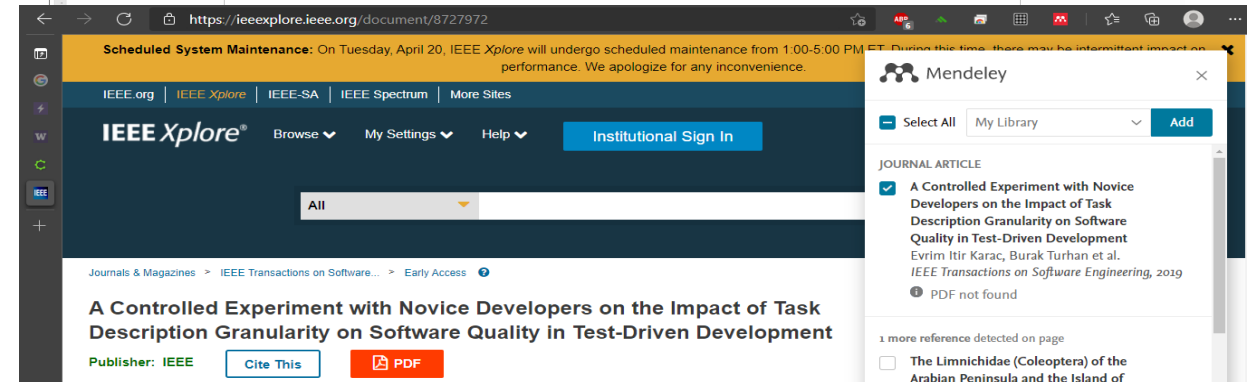
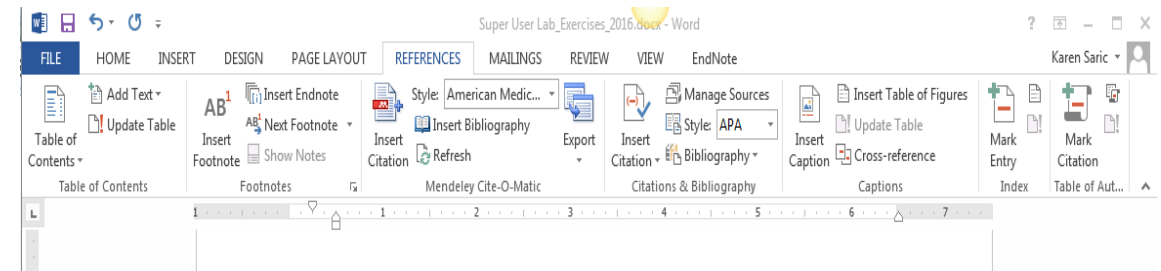
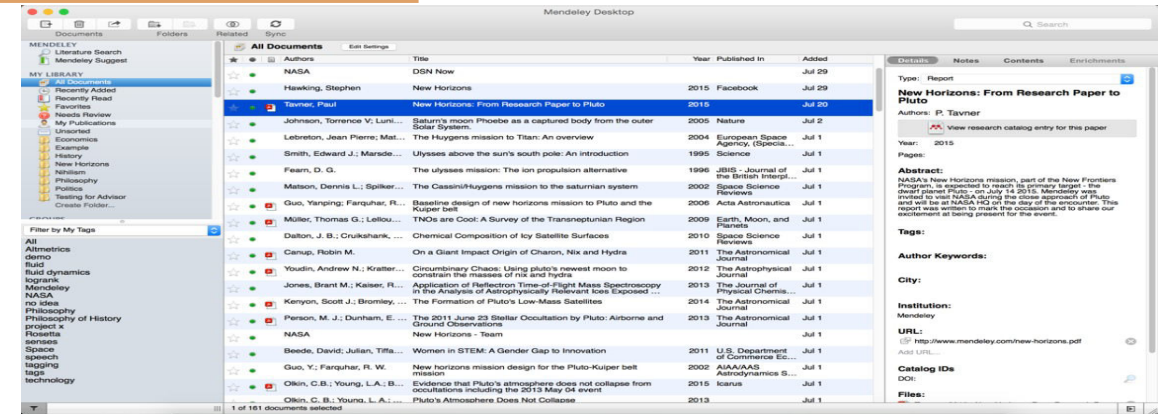


- quickly save and organize citations
- download PDFs
  - read offline
  - mark-up
  - share with a group
- cite while you write
  - insert citations
  - generate bibliographies
  - easily change citation style



# How reference management tool works

- Word processor/Ref mgmt. tool (separate software)
- Integration between them are supported with plugins
  - Word processor plugin
    - For importing references from the tool to
- For importing references from the web to the tool
  - Web browser plugin



# Resources

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- Bianca Verlinden, Writing and Presenting a Project Proposal to Academics
- [Cosine Similarity - an overview | ScienceDirect Topics](#)
- Research4life, Reference Management Software Tools Zotero - Open Source
- Research4life. Mendeley Software Features
- [http://www.cgd.ucar.edu/cms/agu/scientific\\_talk.html](http://www.cgd.ucar.edu/cms/agu/scientific_talk.html)
- Micheal Alley, Craft of scientific presentations
- Various Presentations/Documents from internet.



# THANK YOU

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# Scientific Misconduct

# Introduction

- Scientific misconduct is the **violation of** the standard codes of scholarly conduct and **ethical behavior** in the publication of professional scientific research.
- Research misconduct means **fabrication, falsification, plagiarism and violation of authorship rules** in proposing, performing, or reviewing research, or in reporting research results.

-[US Department of Health and Human Services]

# Falsification



- Falsification is the alteration of the **observed result** of a scientific experiment.
- This is the **practice of manipulating research materials, equipment, or processes, or changing or omitting data or results** such that the research is not accurately represented in the research record.
- Falsification is the most common form of scientific misconduct, in a study of China 2006 40% of the investigated misconduct cases were falsifications.

## Contd...

- Falsification involves **making changes** for example **in the set up or results of an experiment** in a way that cannot be scientifically justified.
- Most commonly with the intention of **improving the results or removing results that do not fit the hypothesis.**



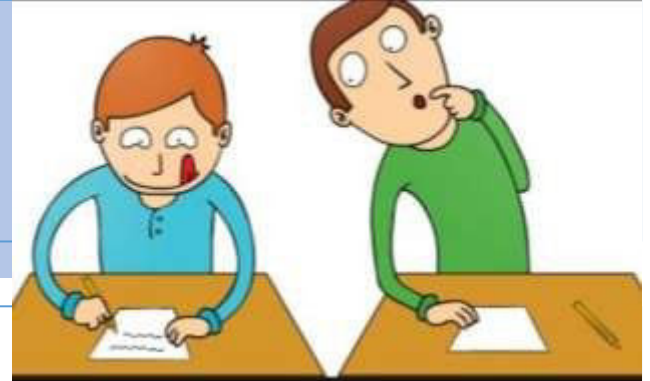
# Fabrication



- Fabrication is the **invention of data or information**.
- Fabricating data involves **creating a new record of data or results**. Most commonly fabricated documents are informed consent forms and patient diaries.
- According to a study from 2004, fabrication is the second most common form of scientific misconduct, comprising 22% of the studied cases, plus 27% of the cases, labelled fabrication.



# Plagiarism



- Copying someone else's

intellectual property (information or ideas) as own achievement without giving the actual source.

- Plagiarism is the most frequent type of misconduct and major breach of ethics.
- Plagiarism is qualitatively different from the other two because it does not distort scientific knowledge, although it has important consequences for the careers of people involved, and for the whole scientific enterprise.

## Research misconduct does not include

- Ordinary errors
- Good faith differences in interpretations or judgments of data
- Scholarly or political disagreements
- Good faith personal or professional opinions
- Private moral or ethical behavior or views
- Authorship controversy

# Why scientific misconduct occur?

- Academic/ career pressure
- Publication pressure
- Personal desire for fame or plum positions
- Sloppy science
- Financial gain
- Inability to determine right from wrong
- Cultural differences

# Consequences of scientific misconduct



1. Could mean the end to career as a researcher.

- **Dismissal** from faculty

- **Rejection** of research grants

- **Blacklisted** (e.g. reputable research organizations and universities refuse to hire; funding sources refuse to sponsor research work, journals refuse to consider any articles for publication.)

2. Fabricators may have previously earned **academic achievement taken away**.

e.g. in 2004, Jan Hendrik Schön was stripped of his doctorate degree by the University of Konstanz after found him fabrication related research done during his employment there.

(<http://news.sciencemag.org/education/2011/09/jan-hendrik-sch%C3%B6n-loses-his-ph.d.>)

# Measures to maintain research ethics and avoid scientific misconduct

| Before conduction of research   | During conduction of research   | After research  |
|---|---|---|
| <ul style="list-style-type: none"><li>▪ Develop clear research plan</li><li>▪ Submit protocol to ethical review</li><li>▪ Prepare well with your research community</li><li>▪ Agree on authorship</li></ul> | <ul style="list-style-type: none"><li>▪ Follow the approved protocol</li><li>▪ Gain consent</li><li>▪ Involve the community</li><li>▪ Protect yourself, your team and your participants</li><li>▪ Regularly check your data</li></ul> | <ul style="list-style-type: none"><li>▪ Share your study report</li><li>▪ Return ‘something’ back to the researched community</li><li>▪ Follow publication ethics</li><li>▪ Use reference management software</li></ul> |

# Why research misconduct matters?

- **Difficult to be recognized.** It is like domestic violence; we did not recognize it, yet we see a lot.
- It **undermines public trust** in medical research and health professionals
- It **corrupts the scientific records** and leads to false conclusion
- Most countries do not have good systems neither for prevention nor for treatment.

# Methods to prevent academic research misconduct

- **Ensure policy** during academic research not only in paper, but to be followed
- **Set standards** for supervision
- Enforce expectations for process rigor
- Communicate expectations for accurate accounting of time spent on research activities
- Evaluate the **strength of your grant**
- Establish an **Office of Research Integrity**

# Hazards to good scientific practice

## Pressure

Evaluations, paper/citation counts

Short-term positions or research grants

Competition inside and between research groups

Expectations to deliver „useful“ results

## Seduction

Parallel involvement in commercialization

Paid expert opinions

Media presence and awareness

Ambition (prizes, positions, publicity, recognition...)



# Hazards to good scientific practice

## Sloppiness

- careless experimenting
- insufficient checking of results, „cutting corners“
- inadequate testing of computer codes
- uncritical analysis of data, ignoring sources of error
- insufficient awareness of the relevant literature

## self-deception

- preconceived opinions, cherished hypotheses
- non-realization of “un-suitable” data or results
- emotion-based judgment of other’s work
- ambition, arrogance, wishful thinking, political bias

## Hazards to good scientific practice

Research is carried out by human beings, who are capable of...

**Emotions are an integral part of the human character. We can't suppress them when doing research, but we must be **aware** of them.**

Thankyou

# RESEARCH METHODOLOGY



## Unit-05: IPRs, Copyrights & Trademarks

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Research Methodology:  
**IPRs,**  
**Copyrights & Trademarks**

# **INTELLECTUAL PROPERTY RIGHTS**

## **IPR Protection in India**

# INTRODUCTION

- **Patent rights** are granted by National Patent Offices, and so patent protection for an invention must be sought in each country individually.
- The Indian law of patents is enshrined in the **Patents Act, 1970**. The Act seeks to provide for legal protection for inventions.
- The Patents Act 1970 has undergone **three amendments** – 1999, 2002 & 2005.

# Organization Structure – IP Offices





# Regional Patent office's Jurisdiction

| <b>Office</b>                          | <b>Territorial Jurisdiction</b>   |
|--|---|
| Patent Office Branch, <b>Chennai</b>   | The States of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and the Union Territories of Pondicherry and Lakshadweep                                    |
| Patent Office Branch <b>Mumbai</b>     | The States of Maharashtra, Gujarat, Madhya Pradesh, Goa and Chhattisgarh and the Union Territories of Daman and Diu & Dadra and Nagar Haveli.           |
| Patent Office Branch, <b>New Delhi</b> | The States of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttaranchal, Delhi and the Union Territory of Chandigarh. |
| Patent Office, HO <b>Kolkata</b>       | The rest of India   |

# Objectives of patent law

- a statutory right to owner of the patent for a certain period of time to stop others from using, selling or working out his invention, and exploit it commercially
- to disclose the invention and practice that invention and make it work - new technology
- to stimulate new inventions of commercial utility
- to pass invention into public domain after the expiry of the fixed period of the monopoly.

# WHAT IS A PATENT?

## Patent

- **is an exclusive, government granted monopoly right to make, use or sell an invention**
  - to use the patented invention
- **for a limited area and time (20 Years)**
- **by stopping others**
  - from making, using, importing or selling.

## Patents are territorial rights

- **so an Indian patent will only give the owner rights**
- **within India and**
- **rights to stop others from importing products into India**
- **the applicant becomes the owner of the patent.**
- **Like any other form of property, a patent can be bought, sold, licensed or mortgaged.**

# Invention

## Patent is granted for inventions

- What is an invention?
  - New or useful art, process, machine, manufacture or composition of matter
  - Improvements
  - Capable of industrial application

## Essential Ingredients of Patents

- Novelty
- Inventive Step
- Lack of Obviousness,
- Sufficiency of description.

# Why Patents?

- **To enjoy monopoly of the invention through exclusive rights**
- **Right to manufacture**
- **Right to sell**
- **Right to import, etc.**
- **Inventions should be encouraged for public interest**
- **Encourage the disclosure of inventions in preference to their use in secret**

# General Benefits of Patents



- Reducing the number of competitors in the market
- Revenue Generation
  - Licensing,
  - Assignment,
  - Technology Transfer,
  - Merger and Acquisition,
- Confidence for venture capitalists or other investors
- Increase the value of the company
- Company can sell the IP portfolio separately
- Continued monopoly of the Patent results in establishing goodwill

# What Cannot be Patented in India?

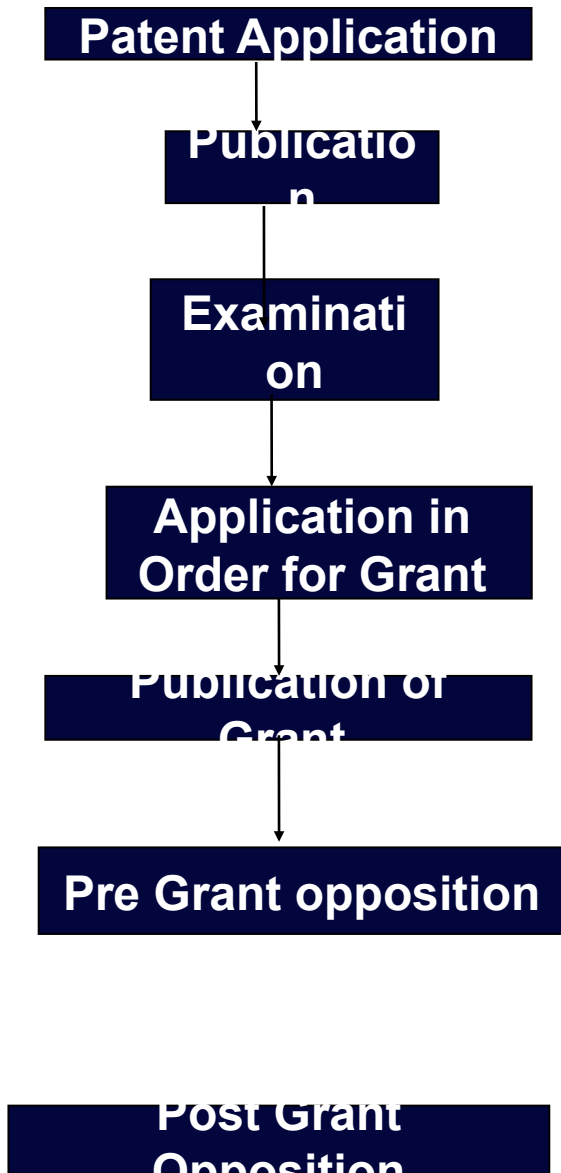
- Mere Idea /Discovery
- Contrary to Natural laws
- Contrary to Public Morality
- Mere Admixture/Arrangement/Rearrangement
- New use/property of a known material
- Method of Agriculture / Horticulture
- Plants and Animals except Micro-organisms
- Mathematical or Business Method
- **Computer Program** *per se*
- Process of treating human beings or animals
- Atomic energy
- Traditional Knowledge
- Topography of Integrated Circuits
- Presentation of Information
- Mere Scheme/Rule/Method of performing mental act or playing game
- Literary, dramatic, **musical** or artistic work

# Who Can Apply for Patent

- **Any person whether a citizen of India or not**
- **True and First Inventor of the Invention**
- **His assignee**
- **His Legal Representative**
- **Either Alone or jointly with another person**



# GENERAL PROCEDURE FOR OBTAINING A PATENT



Documents can be  
filed in the patent office

through online( e-filing) or  
[www.ipindiaonline.gov.in/  
online](http://www.ipindiaonline.gov.in/online)

through post or  
can be submitted by hand

## **Fees...**

|                      |                         |
|----------------------|-------------------------|
| <b>Up to 6 years</b> | <b>Rs. 2,000/ year</b>  |
| <b>7-10 years</b>    | <b>Rs. 6,000/ year</b>  |
| <b>11-15 years</b>   | <b>Rs. 12,000/ year</b> |
| <b>16-20 years</b>   | <b>Rs. 20,000/ year</b> |

# International Application

- PCT Application under **P**atent **C**ooperation **T**reaty
- Convention Application



# Patent Filing Requirements In India



- Two copies of **application** for grant of patent (*Form 1*);
- Two copies of the complete patent **specification** (*Form 2*);
- Two sets of the drawing **figures**, if any, one set of which should be in thick A-4 size white sheets;
- Duly stamped power of attorney authorizing the **agent** (*Form 26*);
- **Declaration** of the Inventor-ship signed by the applicant (*Form 5*);
- Priority documents, if any; if not in English, English translation thereof
- The Statement and **Undertaking** regarding corresponding foreign filings (*Form 3*);

# Patent Application



```
graph TD; A[Patent Application] --> B[Bibliographic Information]; A --> C[Technical Information]
```

## Bibliographic Information

- ☯ Date of Filing & Publication
- ☯ Name & Address of Applicant
- ☯ Title, Classification, Abstract, Drawing, Formula etc.
- ☯ Corresponding Priority Application /Patent

## Technical Information

- ☯ State of Art
- ☯ Description
- ☯ Drawings
- ☯ Claim(s)

- 1. Applicant(s)**
- 2. Inventor(s)**
- 3. Title of the Invention**
- 4. Address for correspondence**
- 5. Priority particulars of the application(s)**
- 6. Particulars for filing PCT (Intl.)**
- 7. Particulars for filing Divisional Application**
- 8. Particulars for filing patent addition**
- 9. Declarations**
- 10. Attachments**

# Term of Patent

The term of a patent is:

- 20 years from the date of priority
- and is maintained by paying the renewal fees
- every succeeding year as given in the table

# Opposition to Patents

- **Pre Grant Opposition [Sec 25(1)];**
  - **Can be filed by any person;**
  - **After the publication of the patent application;**
  - **Grounds for representation ( Pre Grant Opposition) ;**
    - **For example:**
      - **Wrongfully obtained the invention**
      - **Invention is anticipated**
      - **Application does not disclose the source or geographical origin**
      - **Application does not disclose the inventive step**



# Grant of Patent

- A temporary exclusive right given by the authorized body for a limited time period (20 years) to prevent unauthorized use of the technology as claimed in the patent application.
- A Patent has to be granted for it to be effective and enforceable against infringement.



INTELLECTUAL  
PROPERTY INDIA  
PATENTS | DESIGNS | TRADEMARKS  
GEOGRAPHICAL INDICATIONS



GOVERNMENT OF INDIA  
THE PATENT OFFICE  
PATENT  
(OLE - 74)

No. D - CHE/0391

No. 200286

of

13/03/2002

Whereas SRINIVASAN GOPALAKRISHNAN, AN INDIAN CITIZEN, HYDRODRIVE SYSTEMS & CONTROLS (P) LIMITED, P.B. NO.5076, PLOT NO.69, INDUSTRIAL ESTATE, PERUNGUDI, CHENNAI - 600 096, STATE OF TAMIL NADU, INDIA

has/have declared that he is/they are in possession of an invention for  
**PROCESS AND SYNTHESIZER FOR MOLECULAR ENGINEERING AND SYNTHESIS OF MATERIALS**

and that he is/they are the true and first inventor(s) thereof (or the legal representatives(s) or assignee (s) of the true and the first inventor(s)) and that he is/they are entitled to a patent for the said invention, having regard to the provisions of the Patents Act, 1970, as amended and that there is no objection to the grant of a patent to him/them.

And whereas he has/they have, by an application, requested that a patent may be granted to him/them for the said invention;

And whereas he has/they have by and in his/their complete specification particularly described the said invention and the manner in which the same is to be performed;

Now, these present(s) that the above-said applicant(s) (including his/their legal representative(s) and assignee(s) or any of them) shall, subject to the provisions of the Patents Act, 1970, as amended and the conditions specified in Section 47 of the said Act, and to the conditions and provisions specified by any other law for the time being in force, has/have the exclusive right to prevent third parties from making, using, offering for sale, selling or importing for those purposes the product in India/using the process and using, offering for sale, selling or importing for those purposes the product obtained, if any, directly by that process in India, for a term of twenty years from the 13th MARCH 2002 and of authorizing any other person to do so, subject to the conditions that the validity of this patent is not guaranteed and that the fee prescribed for the continuance of this patent is duly paid.

In witness thereof, the Controller has caused this patent to be granted as of the NINETEENTH day of APRIL, 2006.

Date of Grant : 19/04/2006

Controller of Patents



# Examples:

## Basmati Rice Patent Case

- In 1997, when an American company RiceTec was granted a patent by the US patent office to call the aromatic rice grown outside India "Basmati" (*the queen of fragrance*)
- India filed case as the basmati rice is geographical indication.
- But RiceTec claimed that the Starch index (SI) of their product is different from Indian Basmati Rice.



# Patent Cases

- May, 1995 the US Patent Office granted to the University of Mississippi Medical Center a patent [#5,401,504] for "Use of Turmeric in Wound Healing."
- But in India use of Turmeric for Wound Healing is very old practice
- The patent was challenged by Dr. R A Mashelkar (Former Director general of Council of Scientific and Industrial Research (CSIR) (1995-2006), an Indian scientist who has done much to awaken India to Intellectual Property Rights issues.
- April, 1998 CSIR won the case and patent has been canceled



# Infringement of Patent

- Remedies

- Injunction/ temporary injunction
- Damages/Account of Profits
- Seizure
- Destruction/Delivery up





# The Patent Edge

- **Patents can be used**

- offensively,
- defensively,
- or simply to build company image.

- **Revenue generation**

- IP Auction
- Licensing
- Assignment
- Technology Transfer



- A key component in a robust **business strategy**.
- Allows the company to operate from a position of strength in **licensing** and **settlement negotiations**.
- Other IP's, including **trademarks, copyrights, and trade secrets**, may also be used in conjunction with patent to protect valuable company assets.

# COPYRIGHT

Symbol: ©



# COPYRIGHT

## **COPYRIGHT –**

Main type of IP;

Allows person to own the creative work;

Prevents others copying or reproducing someone's work.

## **Objective**

to give the creator control and a monopoly on royalties for a period of time promotes creativity

## **Who owns Copyright?**

Generally the person who created is the Owner ;

But if an employee creates a work in the course of his employment, the owner will normally be the employer.

# COPYRIGHT

## What does COPYRIGHT Protect?

- literary works (e.g., all text, including computer software);
- musical works;
- dramatic works;
- pantomimes and choreographic works;
- pictorial, graphic, and sculptural works;
- motion pictures and other audiovisual works;
- sound recordings;
- architectural works.



# What is not protected?

- ideas, concepts, or discoveries;
- titles, names, short phrases, and slogans;
- works that are not fixed in a tangible form of expression such as improvised speech or dance;
- works consisting entirely of information that is commonly available and contains no originality;
- anything written or created by the government.

# Trademarks

Symbol: <sup>TM</sup>



# Trademarks

- A symbol, word, or words legally registered or established by use as representing a company or product.



# What is a trade mark?



In simple terms, trademark is a brand or logo which represents your business. A visual symbol like a word signature, name, device, label, numerals or combination of colours used by owner of the trademark for goods or services or other articles of commerce to distinguish it from other similar goods or services originating from different businesses.

A trademark can be a word, symbol, logo, brand name, wrapper, packaging labels etc used by manufacturers to identify their own products.

It is used to distinguish the owners' products or services from those of its competitors.

# Example of trademarks:

Coca cola and Pepsi are two trademarks from same industry (beverages) which distinctly identifies source or origin of the goods as well as an indication of quality.



# Who can apply for trademark?

Any person which can be individual, company, or legal entity claiming to be owner of the trademark can apply. The application for trademark can be filed within few days and you can start using “TM” symbol. And the time required for trademark registry to complete formalities is 8 to 24 months. You may use the ® (Registered symbol) next to your trademark once your trademark is registered and registration certificate is issued. Once registered a trademark is valid for 10 years from the date of filing, which can be renewed time to time.

**TRADEMARK**

**TRADEMARK**



[illegible]

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# **Different types of trademarks**

- A name (including personal or surname of the applicant or predecessor in business or the signature of the person)
- alphanumeric or Letters or numerals or any combination thereof.
- Image, symbol, monograms, letters etc.
- Sound marks in audio format



# Trademark

## Different types of Trademarks -





# **Trademarks In India**



- Trademarks in India are registered by the Controller General of Patents Designs and Trademarks, Ministry of Commerce and Industry, Government of India.
- Trademarks are registered under the Trademark Act, 1999 and provide the trademark owner the right to sue for damages when infringements of trademarks occur.

# Documents required for filing a Trade Mark Application in India



- Trademark or logo copy
- Applicant details like name, address and nationality and for company: the state of incorporation
- Goods or services to register
- Date of first use of the trademark in India, if used by you prior to applying.
- Power of attorney to be signed by the applicant in 100 Rs. stamp paper.

## **Steps you need to take to registration your trademark in India:**

1. Select and authorize a trademark agent or attorney to represent you.
2. The trademark attorney conducts a search.
3. Depending upon the results of the search, the trademark attorney will draft your trademark application. In case someone already has the same or similar trademark, you may have to change yours.

4. The trademark attorney will file your trademark application with the Trademark Office and send you the receipt.
5. After a few days, the trademark attorney will send you the Original Representation Sheet of your trademark as it has been filed with the Trademark Office.



# TRADEMARK

6. It can take anywhere between 18 months to 2 years for the Trademark Office to decide whether or not to grant you the trademark;  
if there are objections from the trademark office or from anyone else, it may take longer. And your trademark is published in the Trademark Journal.



Thank You!