



كلية الهندسة  
جامعة الملك سعود



King Saud University  
College Of Engineering



# GE105: Introduction to Engineering Design

## Intellectual Property

Dr. Mohammed A. Khamis

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# Outlines

- KSU Intellectual Property Agreement
- Patents, Trademarks, and Copyrights
- Trade Secrets

# KSU IP Policy

- KSU resources used inside/outside of class work give KSU IP claim.
- KSU employees and students agree to IP policy by virtue (moral excellence) of employment and enrollment.

# Patents

## Definition:

It is a set of **exclusive rights** granted by a **sovereign state** to an **inventor** or assignee for a **limited period of time** in exchange for detailed **public disclosure** of an **invention**. **An invention** is a solution to a specific technological problem and is a product or a process. Patents are a form of intellectual property.

# Patents

## Objectives

- It is desirable in the public interest that industrial techniques should be improved.
- In order to encourage improvement, and to encourage also the disclosure of improvements in preference to their use in secret, any person devising an improvement in a manufactured article, or in machinery or methods of making it, may upon disclosure of his improvement at the Patent Office demand to be given monopoly in the use of it for a period of twenty years. After that period it passes into the public domain.

# Patents

- The **temporary monopoly** is not **objectionable**, for if it had not been for the inventor who devised and disclosed the improvement nobody would have been' able to use it at that time or any other time since nobody would have known about it.

# Patents

## Filing an Application with Patent Office

- The **inventor**, or his **nominee** to file an application with the Patent Office.
- Must be accompanied by a **specification** which may be provisional or complete.
- If provisional, the inventor has a **limited time** available to complete the development of his invention and so complete the specification.
- At this stage the Patent Office executes a search through previous patents to verify the novelty of the application. **Prior disclosure, even if not patented**, will be sufficient grounds for not confirming the application.
- The examination will also consider whether the application relates to a patentable invention and whether the claims are reasonable and acceptable.

# Patents

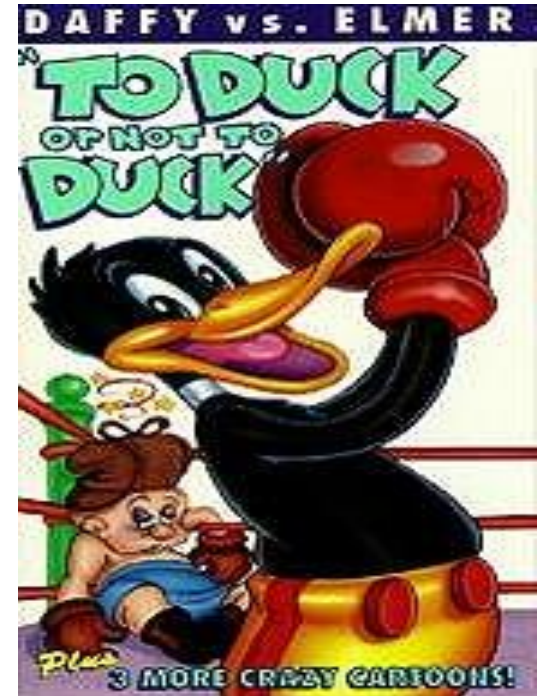
- Intended to provide incentive for effort and expense of invention.
- In exchange for public disclosure, the U.S. Patent and Trademark Office grants an exclusive rights to an inventor for a period of 20 years.
- Patented inventions can be used by others through licensing and royalty arrangements.

# Patents

- New, non-obvious, and useful.
- Specifications (including claims and drawings as needed) and an oath.
- First to invent, not first to file.
- Patent searches automated over web.
- Patent regulations differ throughout the world.
- No world-wide, universal patent.

# To Patent or not to Patent?

- Patents offer IP protection through the legal system.
- Attorneys (lawyers) are needed to defend a patent.
- Patents may not be useful for product with short life < time for patent grant.



# Poor Folk's Patents

- Inventor's Notebook - Document the details of your idea, date, sign, and witnessed.
- Send a copy of product technical description, date, signed and witnessed to yourself in order to have the official postmark to verify the date.

# Grounds on which a patent may not be granted

- Insufficiency—the specification does not sufficiently describe the invention or the manner of its application.
- Non-disclosure of best method known to applicant of implementing the invention.
- Claim not fairly based on the matter disclosed in the specification.
- Ambiguity (vagueness or mystery) of claim.
- Inutility (uselessness) of application of invention.
- False suggestion or representation.
- Prior grant of patent rights.

# Grounds on which a patent may not be granted

- Lack of novelty-the invention is not new having regard to what was known or used before the date of lodging the claim.
- Specification does not involve any inventive step Obviousness-the inventive step having regard to what was known or used.
- Applicant not entitled to apply —i.e. not the inventor or his nominee.
- Use of invention would be illegal.
- Prior secret use of the invention.

# Trademark

- A word, phrase, symbol or design or a combination of words, phrases, symbols or designs that identifies and distinguished the source of the goods or services of one party from those of others.
- Even colors, smells and sounds may be trademarks in the U.S. (and in some other countries)

# Trademark - Examples



# Trade Secrets

- Patent may be too time consuming considering the product life time
- No protection offered by legal system
- Corporate espionage (spying) /Reverse engineering
- Non-disclosure agreements

# Copyrights

- Artistic Expression
- Written articles, recorded music, software