



GE106

Introduction to Engineering Design

College of Engineering

King Saud University

Lecture 11.

Intellectual Property

FALL 2022

Kinds of Property

Movable
Property

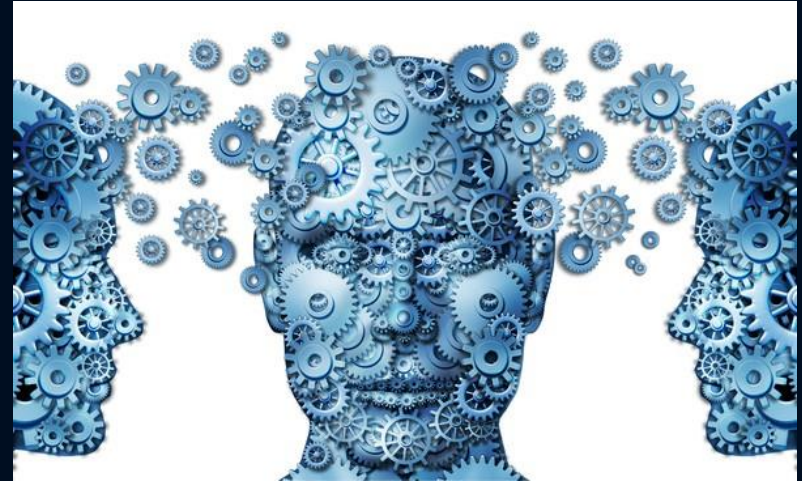
- Car, Pen,
Furniture

Immovable
Property

- Land, Building

Intellectual
Property

- Literary works,
inventions



Intellectual Property is defined as products of the human intellect that have economic value

1. What is a PATENT?

- It is a right granted for an invention (a product or a process) providing a new way of doing something
- It enables an inventor to prohibit another person from manufacturing, using or selling the patented product without permission.
- Period of Patents span 20 years



What can be patented:

Inventions in all fields of technology, whether products or processes, if they meet the following criteria:

- Novelty (originality)
- Non-obviousness (inventiveness)
- Industrial application (utility)



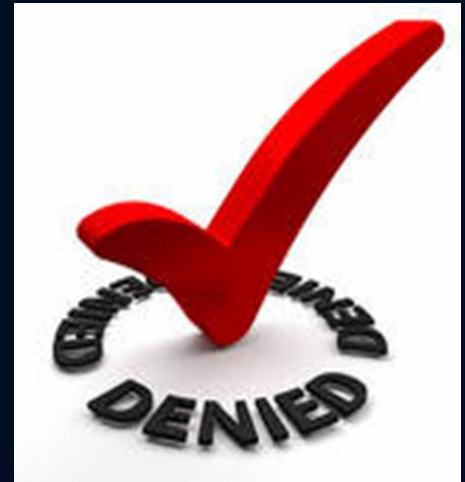
Who Grants Patents

- Patents are granted by national patent offices* after publication and substantial examination of the applications
- They are valid within the country in which they are granted



What Cannot be Patented

- An invention which is useless
- An invention contradicting established natural laws (e.g., more than 100% performance)*
- Scientific principles, abstract theory, algorithms, or computer programs (outcomes of mental process only)
- Discovery of any living thing or non-living substance occurring in nature



What Cannot be Patented

- An invention contrary to public order or morality or which causes risk to human, animal, or the environment

Examples:

- Gambling machine
- Invention for breaking in homes
- Biological warfare material
- Terminator gene technology*



Filing a Patent

Do it
invent it
build it

Prove it!
(Patent
search)

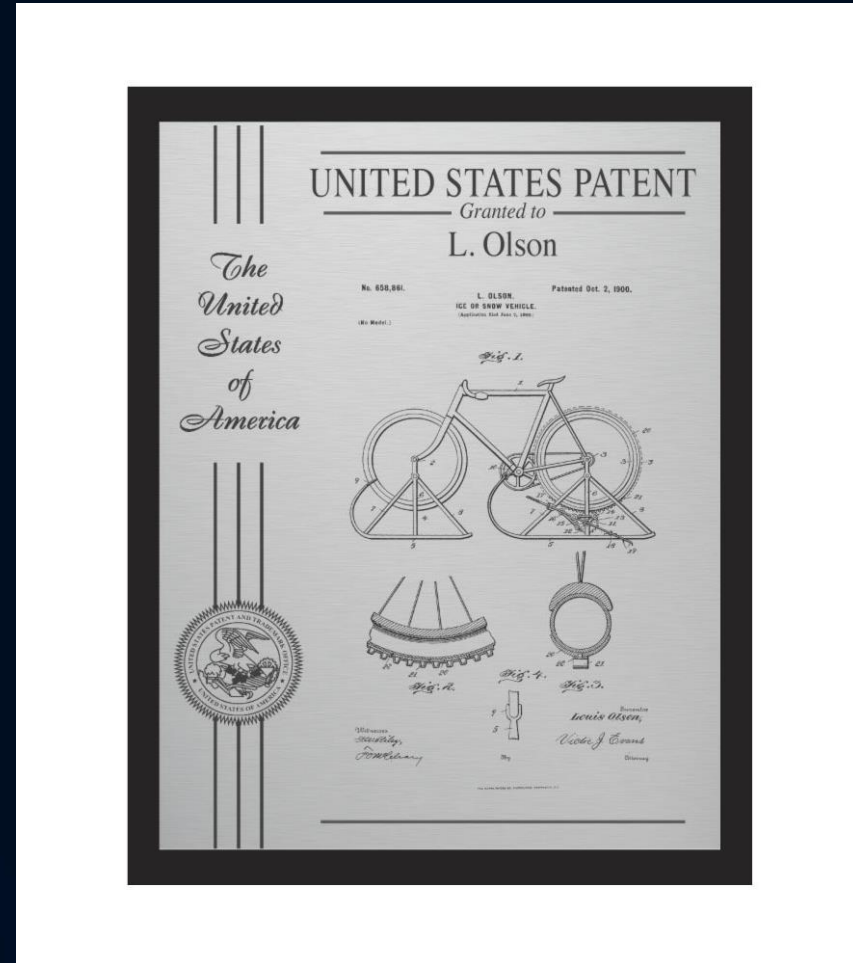
Generate
documents,
file, pay, wait,
negotiate

Protect it
use it



Patent Document*

- Title
- Abstract
- Drawings
- Background of invention
- Summary of invention
- Description of drawings
- Claims



2. Copyright

- Original Literary, Dramatic, Musical and Artistic Works (Work: ideas expressed in material form)
- Cinematograph Films
- Sound Recordings
- No copyright in ideas or facts



- Duration of Copyright is lifetime of author + 60 years

Copyrights Must:

- Have some originality
- Have some creativity
- Be an expression, not an idea or formula
- Be visibly indicated by:
"© date, name of owner"



3. Trademark

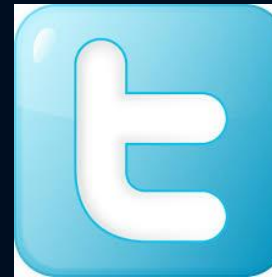


- A name capable of being represented graphically, distinguishing the goods or services of one person from those of others
- A Trademark can be:
 - Sign, words, letters, numbers
 - Drawings and pictures
 - Colors or combination of colors
 - Shape of goods
 - Graphic representation or packaging



Trademark Examples*

- Coca Cola (soft drink)
- Twix (Chocolate)
- Facebook (social media)
- Apple (computer)



Registration of Trademark

- Trademarks are registered by national trademark registries and are valid in that country
- Registration is made after examination and publication
- Period of registration is for 10 years but can be renewed indefinitely



4. Trade Secrets

- Some important information cannot be protected by any of the available means of IP; it is held confidential as a trade secret.
- A Trade secret can be an invention, idea, survey method, manufacturing process, experiment results, chemical formula, recipe, financial strategy, client database etc.



Trade Secret

- Anything that gives an advantage and if “stolen” will immediately help the competition (example: Coca-Cola formula®)
- It involves non-disclosure agreements
- Cannot prevent invention by others
- Cannot prevent reverse engineering



When are Trade Secrets preferred?

- When the invention is not patentable
- Patent protection is limited to 20 years, when a secret can be kept beyond that period
- When it is difficult to reverse engineer



How to Guard a Trade Secret?

- Restricting number of people having access to secret information
- Signing confidentiality agreements with business partners and employees
- Using protective techniques like digital data security tools and restricting entry into area where trade secret is worked or held.



Final Thoughts

- Intellectual property is to be respected
- Violating the IP is punishable by very strict laws
- KSU resources used inside/outside of classwork give KSU IP claim
- KSU employees and students agree to IP policy by virtue of employment and enrollment

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Intellectual Property & Technology Licensing

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