



GE105

Introduction to Engineering Design

College of Engineering

King Saud University

## Lecture 11.

# *Intellectual Property*

FALL 2016

# Kinds of Property

Movable  
Property

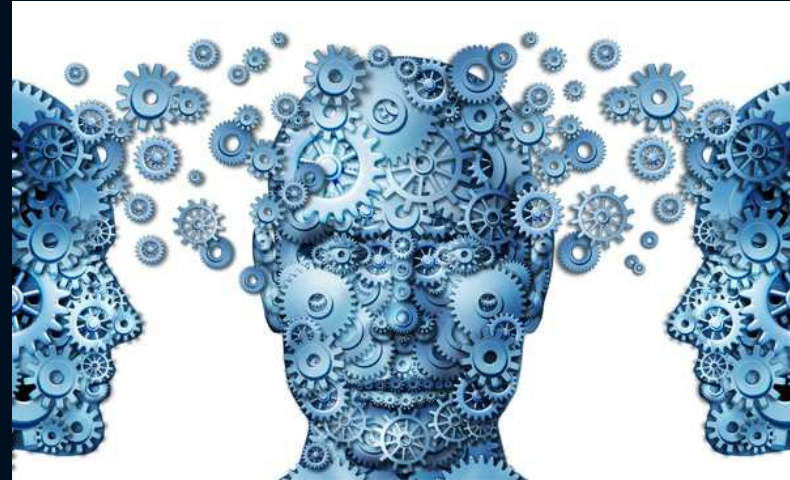
- Car, Pen,  
Furniture

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 house-breaking
- Biological warfare material
- Terminator gene technology\*





# Filing a Patent

Do it  
invent it  
build it

Prove it!  
(Patent  
search)

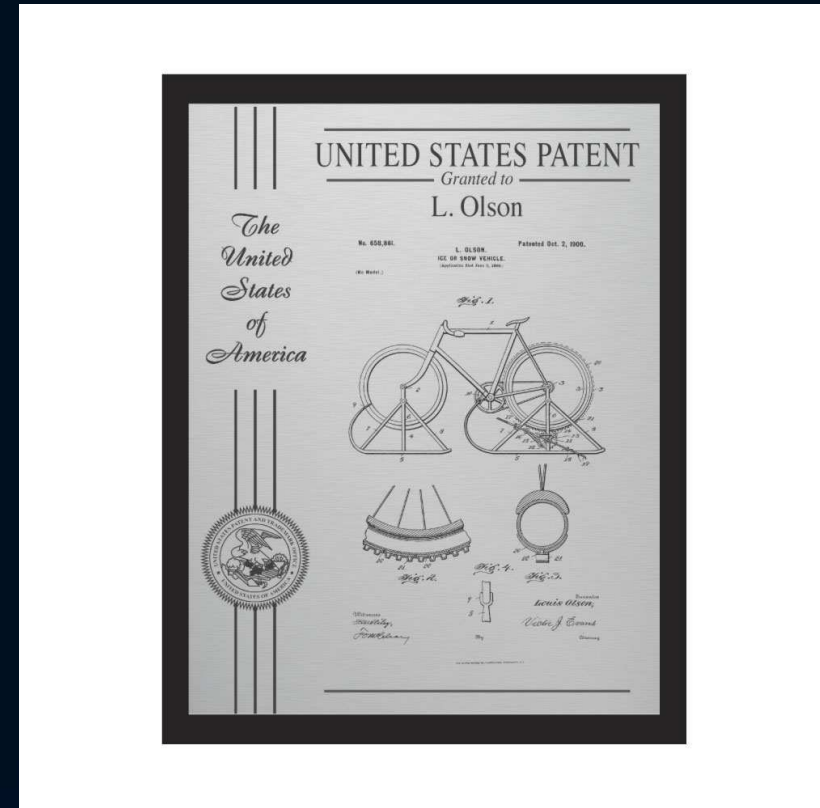
Generate  
documents,  
file, pay, wait,  
negotiate

Protect it  
use it



# Patent Document

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



## 2. Copyright

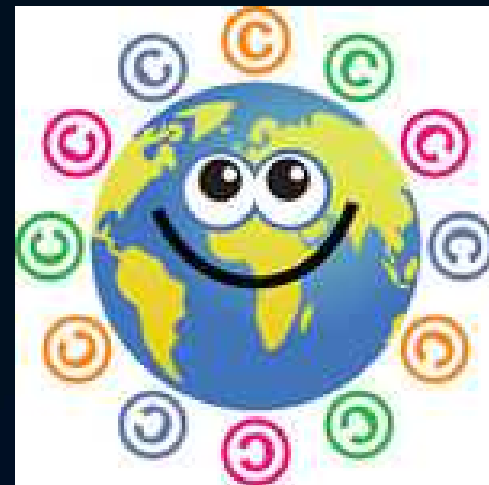
- Original Literary, Dramatic, Musical and Artistic Works (Work: ideas expressed in material form)
- Cinematograph Films
- Sound Recordings
- No copyright in ideas or facts



- 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

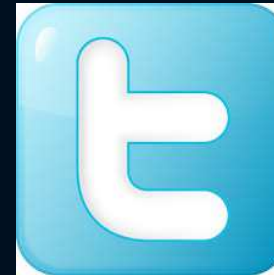


- A name capable of being represented graphically, distinguishing the goods or services of one person from those of others
- A Trademark can be:
  - Sign, words, letters, numbers
  - Drawings and pictures
  - Colors or combination of colors
  - Shape of goods
  - Graphic representation or packaging



# 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

الملكية الفكرية وترخيص التقنية  
Intellectual Property & Technology Licensing



<http://iptl.ksu.edu.sa/>

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