GE105
Introduction to Engineering Design
College of Engineering
King Saud University

Lecture 11
Intellectual Property

2014-2015

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

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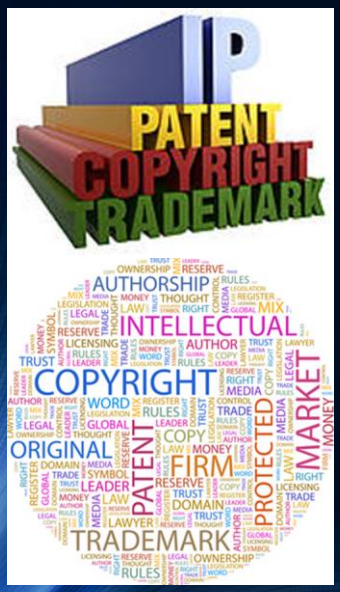
Topics of Discussion



- Patents
- Copyrights
- Trademarks
- Trade secrets

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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

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What can be patented:

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

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

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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

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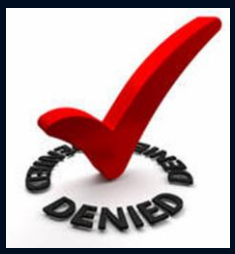
What Cannot be Patented

- An Invention Which is useless
- An Invention contradicting established Natural Laws (e.g., more 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



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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

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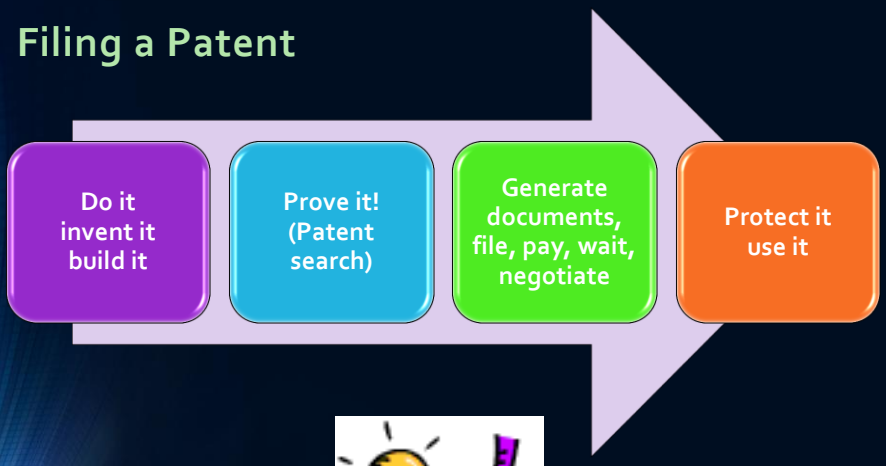
Filing a Patent



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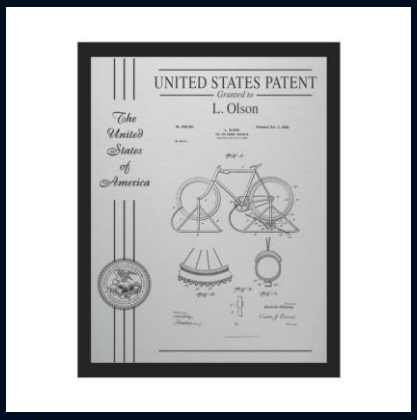
Patent Document

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



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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

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Copyrights Must:

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

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Trade Mark

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

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Trade Mark Examples

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

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Registration of Trade Mark

- Trade Marks are registered by national trade mark 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

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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.

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Trade Secret

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

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When Trade Secrets are 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

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How to guard 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.

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Final Thoughts

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

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