The Abdus Salam
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2140-10

Workshop on Entrepreneurship for Physicists and Engineers from Developing Countries

3 - 7 May 2010

Basic Concepts of Intellectual Property

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Basic Concepts of Intellectual Property

Entrepreneurship for Physicists and Engineers from Developing Countries

Trieste, Italy, May 2010

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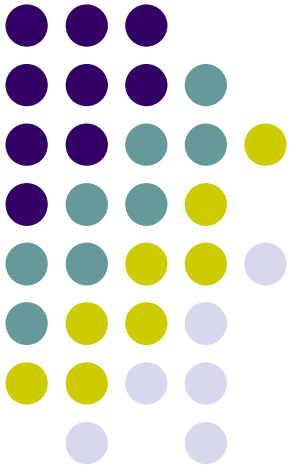

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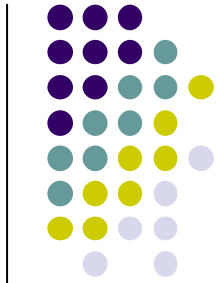
What is IP?



- Various rights that confer protection to original, innovative and creative ideas or labour
- Covers a wide range of “intangible” property ranging from information to invention that is associated with human endeavour
- Scope and nature of IP protection is a constantly evolving field of law

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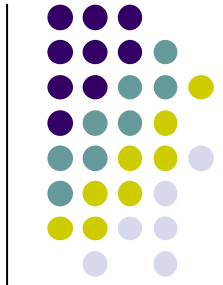
Some Types of IP



- Patents
- Copyright
- Trademarks
- Confidential information/Trade Secrets
- Designs
- Trade secrets / knowhow

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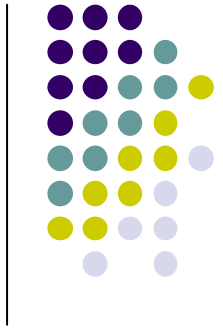
Patents



- An exclusive right protecting invention
- Territorial – regulated by national laws – No international patent
- Regional and international legislations/treaties have considerable influence over national laws (e.g. EPC, PCT, TRIPS)
- TRIPS – minimum standards of protection for signatory countries

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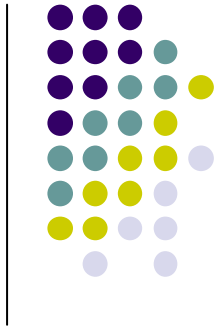
Criteria for patentability



- New/Novel
- Inventive step
- Industrial application / Utility
- Some specific exclusions from patentability in national laws (e.g. mere discoveries or laws of nature)

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Exclusions from patentability

Some exclusions in EPC

- Discoveries, scientific theories ($e=mc^2$)
- Methods of doing business
- Literary, dramatic, musical or artistic works
- Computer programs “as such”
- Methods of medical treatment

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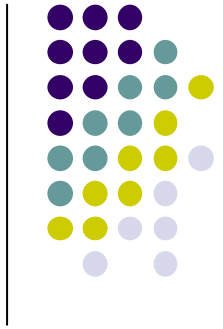
A patent



- Does not necessarily give an inventor/owner/assignee a right to exploit the invention
- Is a negative right – exclusion of others
- Excludes others from:
  - Using or dealing with an invention (products: making, disposing, offering to dispose, keeping, importing) – (process: using or offering for use)

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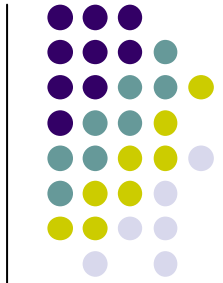
Exploitation of Patents



- Can be used to put an invention into practice – enablement through exclusivity
- Can be bought, sold, hired or exchanged
- Can be exploited for both financial and social gain (the public good)
- Can be licensed out, or used for forming partnerships, startups, joint ventures
- Can be used to secure freedom to operate (FTO)

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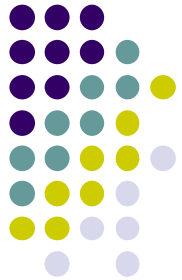
Inventorship



- Very important to establish who is the inventor – especially in the USA (first to invent vs. first to file)
- Often this is established through diligence of record keeping

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Diligent Record Keeping

Daily record should consist of

- Experiments
- Thoughts, plans, results, reflection of effort
- Enabling information for project continuity
- Substantial information that forms the basis of publications and theses
- Substantial information that can be used by patent offices and courts (if necessary)

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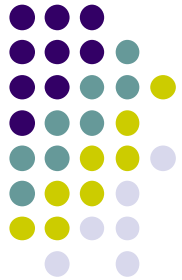
Ownership



- Inventor / Joint Inventor / Other person as determined by appropriate law
- Personal property – can be leased, mortgaged, licensed, given away or be part of an inheritance

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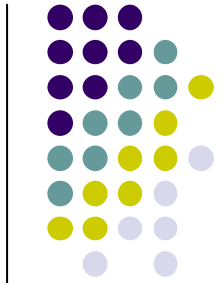
Ownership by employer



Ownership belongs to employer when:

- Invention was made in the course of an employment and
- It was the duty of the employee to make the invention
- Contractual term
- Equity or implied term

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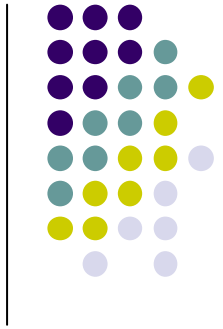
Ownership by employee



- Some factors affecting ownership
- Duties of employee
- Place of invention
- Duty to invent
- Special obligation to further employer’s interest

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Publication vs. Patenting

- Novelty: State of art (SOA) determined at the priority date of invention
- SOA: All info available in the world (writing, orally, by use, or “available” to public by other means.
- Note: “Grace periods” in some jurisdictions eg: USA, JP and “Absolute” vs. “Relative” novelty (Europe vs. USA)

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Publication vs. Patenting

- As a general principle – get a filing date before submission of paper
- Submission does not kill novelty – peer reviewers understand confidentiality
- Filing before publication mandatory in Europe (novelty requirement)
- Disclosure without patenting has resulted in many inventions not being translated into commercial products/processes

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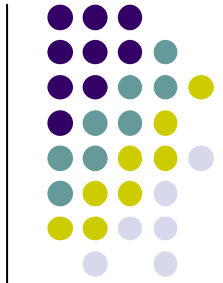
Research use



- No exemption in USA (Madey vs. Duke University)
- Statutory exemptions exist under EPC
  - Private use for non-commercial purposes
  - Experimental purposes relating to the “subject matter” of the invention
  - Exemptions controversial, but have in the past protected non-commercial research activity in academic and governmental labs.

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Trade secrets/confidential info

- Breach of confidence: Personal and technical trade secrets/ ideas/ knowhow/ other
- Knowhow can be licensed – and significant amounts of knowhow may not be disclosed in a patent
- Confidentiality agreements protect ideas before they are developed further and enjoy more substantial protection

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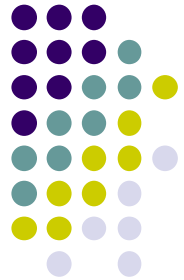
Trade secrets/confidential info



- Trade secrets/knowhow enjoy weak protection in law compared to IP that is registered
- Theft and dissemination by employees and associates are hard to establish
- There are no clear cut barriers between what an ex-employee may or may not in further employment
- Trade secrets not protected against reverse engineering

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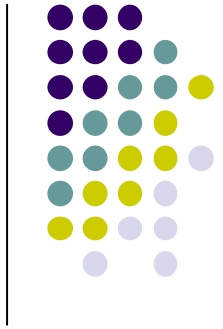
Design rights



- Unregistered designs: protects 3D designs/articles
  - “Original” and “non-commonplace” design of aspects of “shape” and “configuration”
  - Excludes “must fit” and “must match” articles
- Registered designs: Protect visual appearance (“eye appeal”) of a object
  - Shape, configuration, pattern, ornament

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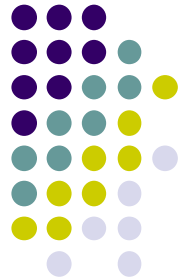
Comprehensive IP Management Handbook



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