



Recent Developments in *Information Technology (IT)* and the Effective Use of Global IP Protection Systems

- From PCT perspective-

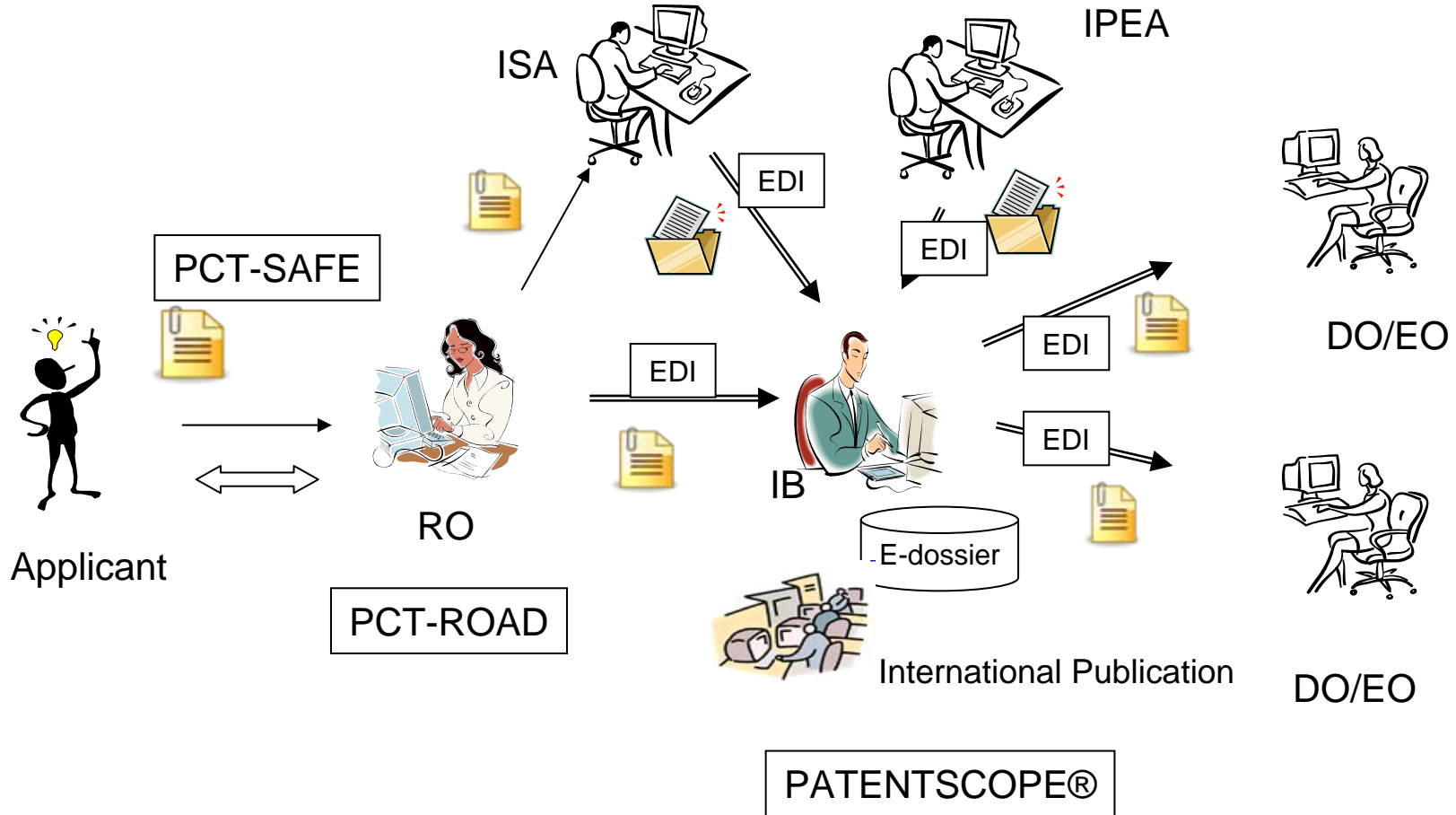
Tokyo
11-12 November
Tokyo

Takashi YAMASHITA
Director, PCT International Cooperation Division

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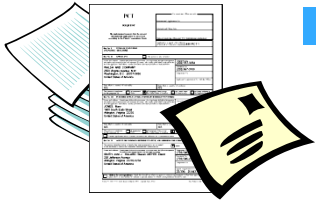
Overview of IT in PCT



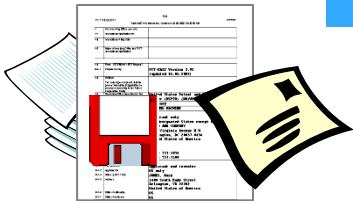
PCT-SAFE (1)

Secure Applications Filed Electronically

■ Types of filing



- Paper: all documents on paper accompanied by Form PCT/RO/101



- PCT-SAFE (PCT-EASY): all documents on paper accompanied by PCT-EASY request Form and diskette/physical medium



- PCT-SAFE fully electronic: request, text and drawings filed on-line or on physical media, no paper required

PCT-SAFE (2)

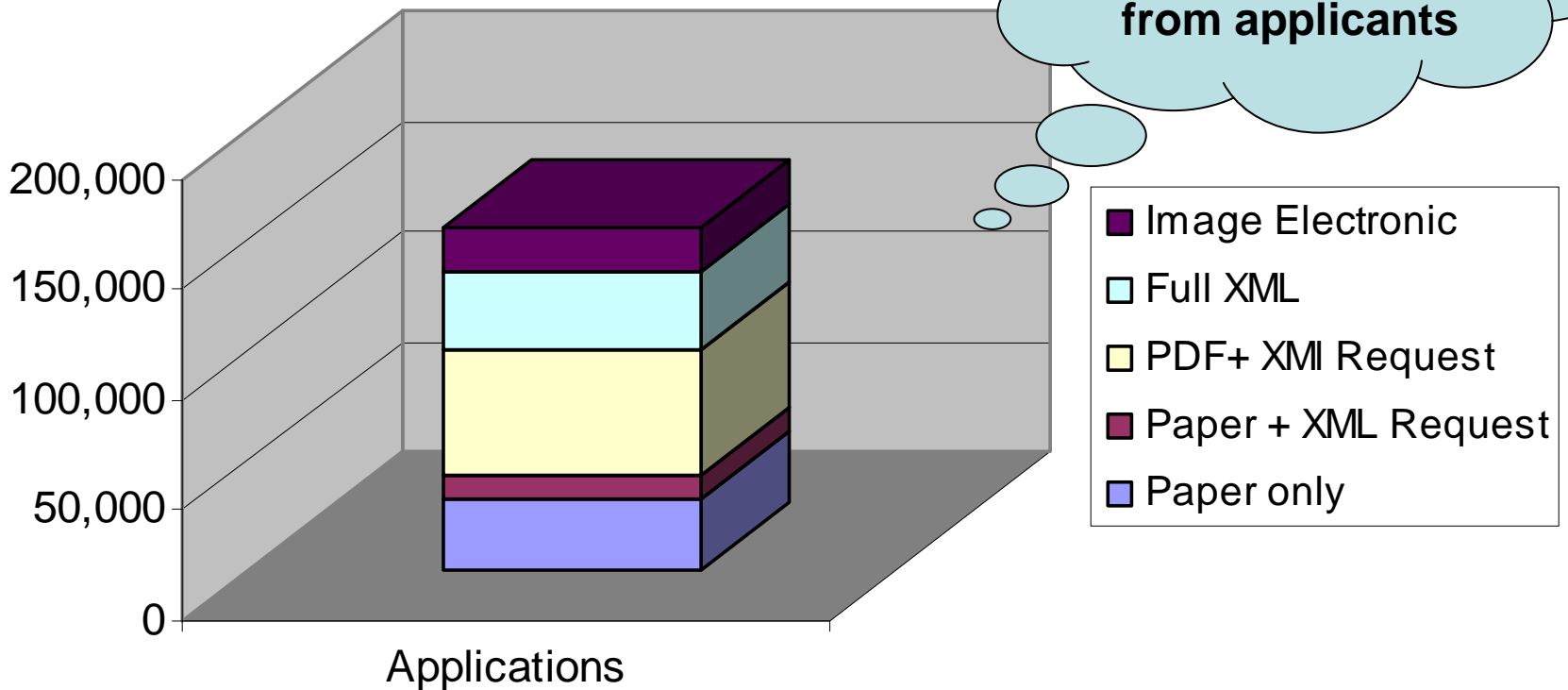
- PCT-SAFE fully electronic filings;
 - Currently accepted by 20 ROs
 - Possible with RO/IB since February 2004 for all PCT applicants

- PCT-EASY type filings accepted by more than 70 ROs

- PCT-EASY type and fully electronic filings accounted for approximately 78% of all PCT filings in 2009
 - At RO/IB(2009)
 - PCT-EASY type filings 6.7%, fully electronic filings 63.6%, paper only filings 29.7%

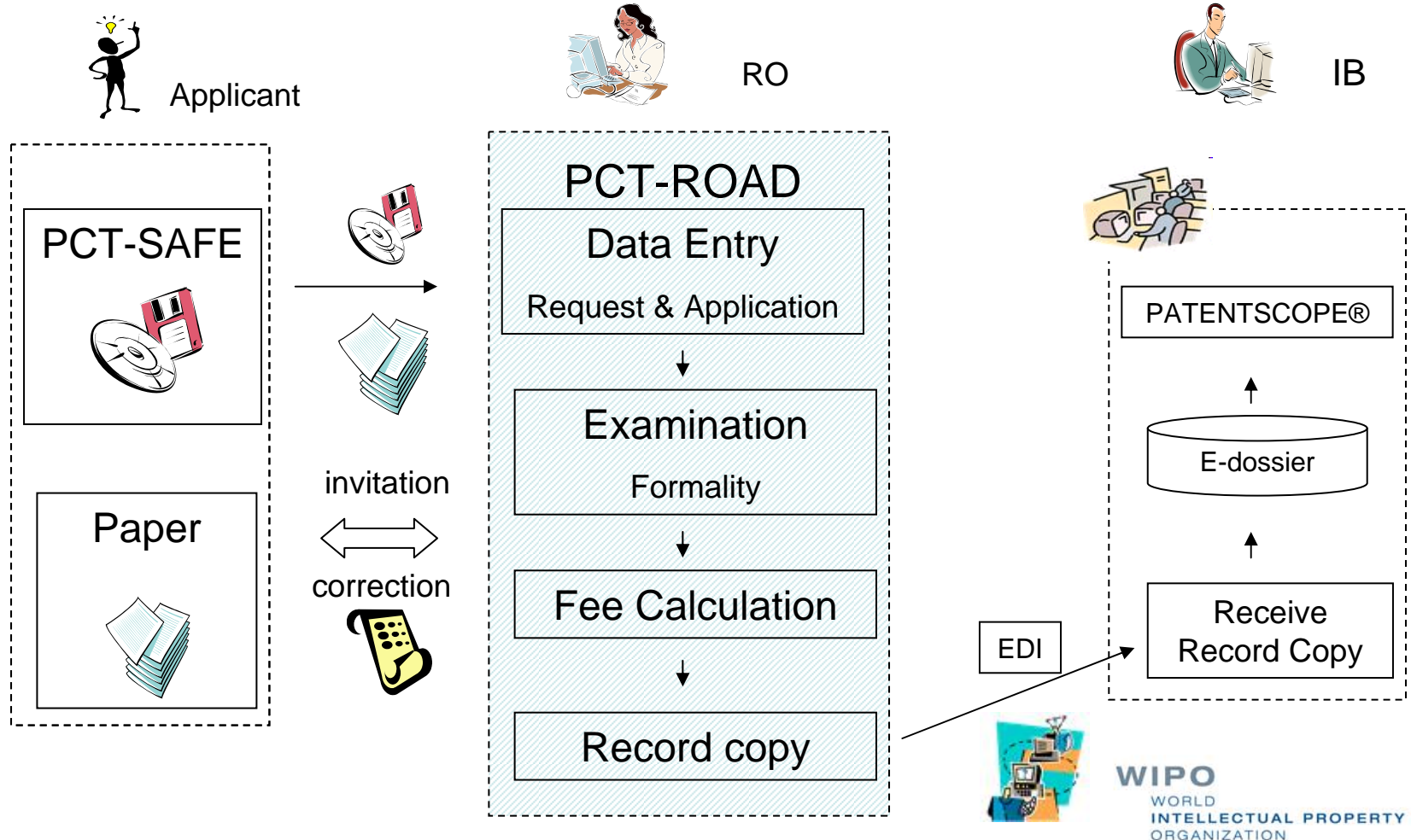
 <http://www.wipo.int/pct-safe/en/>

PCT Filing by type (2009)



PCT-ROAD (1)

Receiving Office Administration



PCT-ROAD (2)

- Basic functions
- Data Entry
 - Physical media (CD-ROM,FD)
 - Paper (manual entry)
- Examination
 - Ex-officio correction, formality check
- Fee calculation
- Creation of record copy to IB



Ⓘ <http://www.wipo.int/pct-safe/en/pctroad/index.html>

PCT-EDI (1)





Electronic Data Interchange

- Internet based secure transmission by which Offices can send and receive documents to/from IB
- Initially (~2007) the service made available was upload to IB of certain documents
- Extended to upload and download of all PCT documents
- Still a large number of documents are sent on paper
 - Implication to PCT framework (PCT/WG/3/2 para90-93)

Ⓢ <http://www.wipo.int/patentscope/en/pct-edi/>

PCT-EDI (2)

	To IB 		From RO/IB 
	Record copy	ISR	Search copy
EPO	EDI [Request-XML App. Body-TIFF]	paper	paper +EDI(TIFF)
JPO	TRINET (XML)	TRINET (PDF-TEXT)	paper
USPTO	EDI (PDF)	EDI (PDF)	paper
KIPO	EDI (XML)	EDI (TIFF→XML)	EDI (TIFF)

Digitization (1)

■ Advantages



- Preservation of original documents

- Provide formats for electronic data exchange

- Enable cost effective processing

- Enhance value added quality service

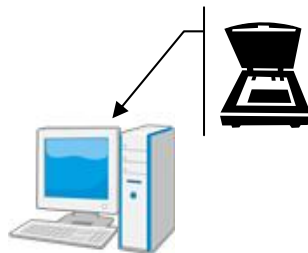
Digitization (2)

- Step by step depending on Office status

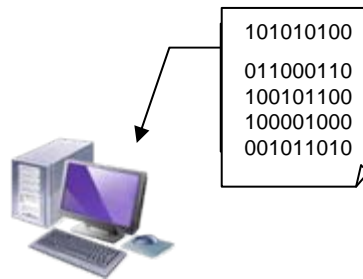
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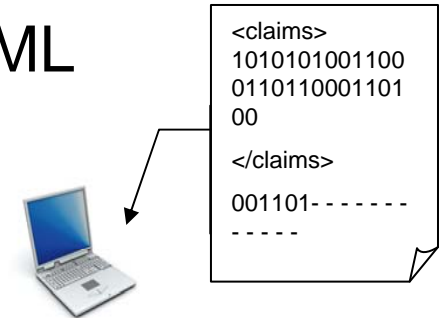
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Text



XML

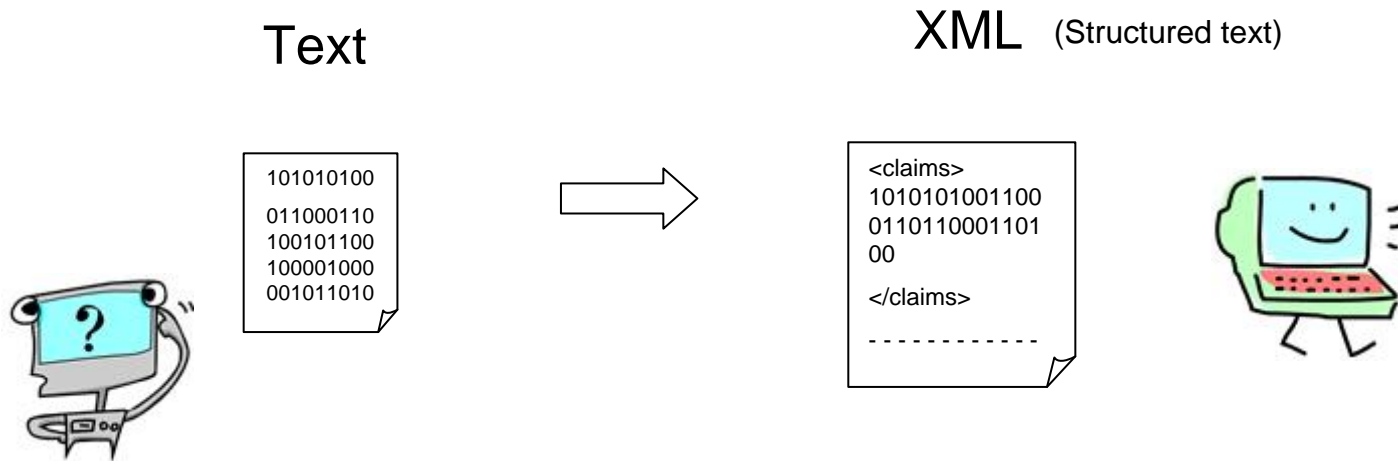


XML from ISA/IPEA for all PCT documents

→ goal (C.PCT 1160)

Digitization (3)

■ XML eXtensible Markup Language



Computer recognizes the text logically according to its tagged attributes, e.g., “claim” “abstract.”

Facilitate administration, retrieval, translation

High quality service !

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- WIPO's patent information portal site
- Published international applications are available through this portal site (www.wipo.int/pctdb)
- PATENTSCOPE® is not just a site of international publication. It provides powerful search engine and analytical resources, etc.



① <http://www.wipo.int/patentscope/en/>

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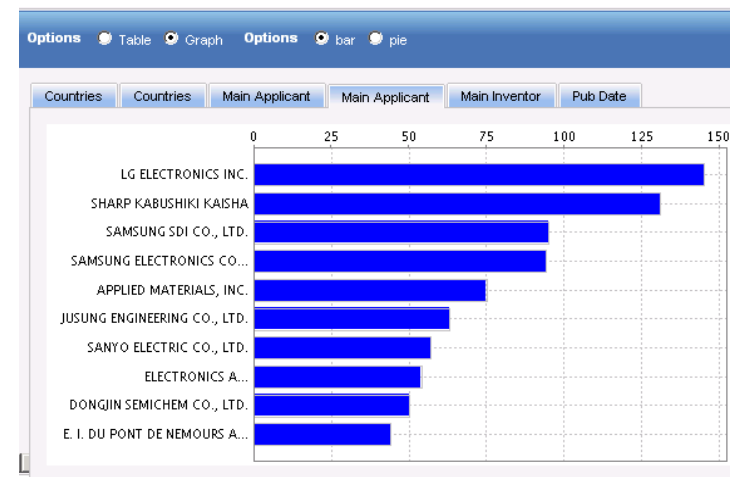
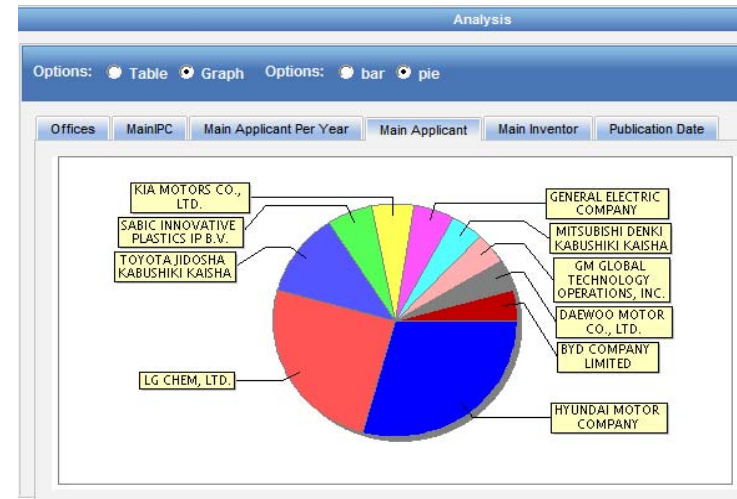
PATENTSCOPE® (3)

Analysis

Options: Table Graph Options: bar pie

Offices		Main IPC		Main Applicant		Main Inventor		Pub Date	
Name	No	Name	No	Name	No	Name	No	Date	No
PCT	603	H01M	157	HYUNDAI MOTOR COMPANY	48	LEE, Sang-Young	7	2000	38
Republic of Korea	248	B60L	133	LG CHEM, LTD.	41	MOHLIN, Mikael, B.	6	2001	46
		B60K	46	TOYOTA JIDOSHA KABUSHIKI KAISHA	19	PARK, SEON SUN	5	2002	54
Israel	18	H02J	39			SHIMIZU, Hiroshi	4	2003	26
South Africa	14	H02K	23	SABIC INNOVATIVE PLASTICS IP B.V.	10	OVSHINSKY, Stanford, R.	4	2004	32
		H01L	22	KIA MOTORS CO., LTD.	9	MASLOV, Boris, A.	4	2005	42
Mexico	5	F02B	20	GENERAL ELECTRIC COMPANY	9	LEE, JIN HYEOK	4	2006	74
		F16H	17	MITSUBISHI DENKI KABUSHIKI KAISHA	7	KOO, JAE SEUNG	4	2007	62
		H02M	16			KITANAKA, Hidetoshi	4	2008	84
		G01R	14	GM GLOBAL TECHNOLOGY OPERATIONS, INC.	7	BIRKE, Peter	4	2009	90
						DAEWOO MOTOR CO., LTD.	7		2010

Sort by: Relevance Google translate: Original



PATENTSCOPE® (4)

Sort by: Relevance		Google translate: Original					
No	Ctr	Title	PubDate	Int.Class		Applicant	Inventor
1.	WO	WO/2010/018902 -ELECTRIC CAR	18.02.2010	B60L 11/18	PCT/KR2009/000003	HYUNDAI MOTOR CO., LTD	KIM, Gyu Ha
<p>An electric car is disclosed, which is basically configured to allow a plurality of driving motors. Some driving motors can be driven when a driving load is small like on a flat ground, and all the driving motors can be driven when a driving load is large like on a slope or a rough road in which a vehicle speed is slow due to a large driving load. Namely, the driving force of driving motors is controlled in such a manner that only a needed driving torque is outputted depending on a change of loads of driving motors.</p>							
2.	WO	WO/1993/005977 -ELECTRIC CAR	01.04.1993	B60L 3/00	PCT/GB92/00003	SHAH, Y LIMITED	SIDDIQI, Kamal
<p>A drive system (11) for an electric car has four wheels (12, 13, 14, 15) to each of which is connected a motor (18). The motors (18) are connected to a power supply (25) and are controlled by a supervisory control unit (20) and separate control units (19). The torques delivered by the motors (18) is dependent upon instructions received from the driver of the car through the accelerator pedal (21), brake pedal (22) and steering wheel (23) and upon the temperatures of the motors (18) detected by the sensors (24) located on each motor (18). In this manner, the torques drawn from the motors may be maximised without damaging the motors thus improving the electric car's performance and permitting the use of smaller motors than those previously used thereby reducing the total weight of the car.</p>							
3.	WO	WO/2009/089573 -POWER SUPPLY WITH INTEGRATED GENERATOR AND TRANSFORMER FOR ELECTRIC CAR	23.07.2009	B60L 11/00	PCT/AU2009/000003	STRANG, John, Thomas	STRANG, John, Thomas
<p>An electric car has a primary power system comprising at least one integrated generator and transformer, and a secondary power system comprising a contoured and streamlined solar panel roof. The integrated generator and transformer is a rotating field generator combined with a step-up transformer, and can be driven, for example, by a free wheeling front axle of the electric car. The primary supply coils and the primary and secondary transformer windings are triple coil stacked as a single unit on the stator body, and the flux pathway is optimised. Magnet keepers comprising male and female components are provided for the permanent rotor magnets.</p>							

PATENTSCOPE® (5)



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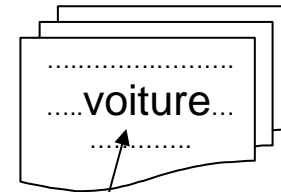
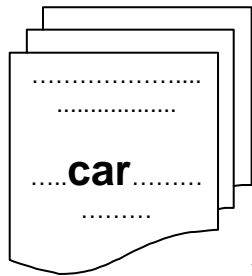


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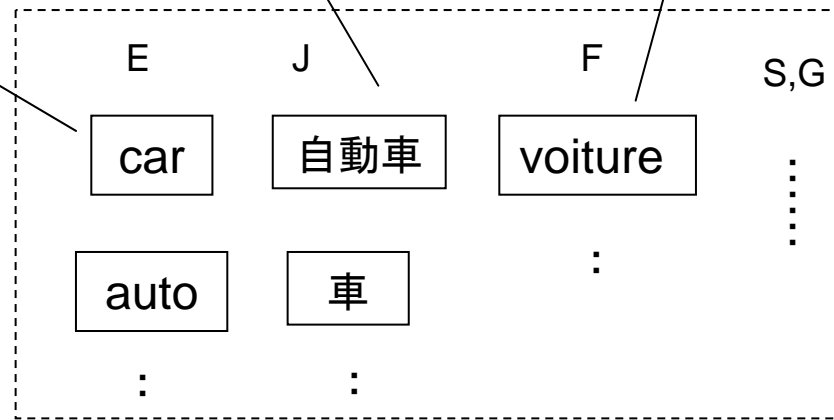
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CLIR



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create relevant
terms in 5
languages

PATENTSCOPE® (6)



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Input search terms

Query [Help]


solar power

» Query Language: English

» Expansion Mode: Automatic

» Precision Recall

Submit Query

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Results 1-10 of 9,642 for Criteria:((EN_TI:("solar power" OR "solar energy"~21 OR "solar electrical"~21 OR "solar current"~21) OR EN_AB:("solar power" OR "solar energy"~21 OR "solar electrical"~21 OR "solar current"~21)) OR (DE_TI:("Solarenergie" OR "Sonnenenergie") OR DE_AB:("Solarenergie" OR "Sonnenenergie"))) OR (ES_TI:("potencia solar"~22 OR "energia solar"~22 OR "eléctrica solar"~22 OR "corriente solar"~22 OR "potencia solares"~22 OR "energia solares"~22 OR "eléctrica solares"~22 OR "corriente solares"~22) OR ES_AB:("potencia solar"~22 OR "energia solar"~22 OR "eléctrica solar"~22 OR "corriente solar"~22 OR "potencia solares"~22 OR "energia solares"~22 OR "eléctrica solares"~22 OR "corriente solares"~22)) OR (FR_TI:("transformation d'énergie solaire" OR "puissance solaire" OR "génération d'énergie solaire" OR "employer énergie solaire") OR FR_AB: ("transformation d'énergie solaire" OR "puissance solaire" OR "génération d'énergie solaire" OR "employer énergie solaire")) OR (JA_TI:("太陽熱 電源"~22 OR "太陽熱 電力"~22 OR "太陽熱 発電"~22 OR "太陽熱 パワー"~22 OR "太陽光 電源"~22 OR "太陽光 電力"~22 OR "太陽光 発電"~22 OR "太陽光 パワー"~22 OR "太陽熱 動力"~22) OR JA_AB:("太陽熱 電源"~22 OR "太陽熱 電力"~22 OR "太陽熱 発電"~22 OR "太陽熱 パワー"~22 OR "太陽熱 動力"~22))) Office(s):all Language:EN Stemming:true

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((EN_TI:("solar power" OR "solar energy"~21 OR "solar electrical"

[Refine Search](#)



PATENTSCOPE® (8)


Sort by: <input type="text" value="Relevance"/> Google translate: <input type="text" value="Original"/>							
No	Ctr	Title	PubDate	Int.Class	App.No	Applicant	Inventor
1.	MX	MX/a/2007/000671 - SOLAR ENERGY POWER SUPPLY SYSTEM	27.01.2009	F24J 2/00	MX/a/2007/000671	CHIA-TIEN WU	CHIA-TIEN WU
<p>A solar energy power supply system includes a solar battery (1), an electrolyte supply device (2), an electrolyte recycling device (3), a hydrogen recycling device (4), a fuel cell (5), a heating device (6) and a power management device (7). Electric power generation is accomplished by first activating the electrolyte supply device (2) to inject electrolyte (15) into the solar battery (1). The electrolyte (15) is a compound of water and a photo catalyst. The solar battery (1) receives light or heat to generate electric power. Water vapor (9) and hydrogen are generated and recycled through the electrolyte recycling device (3) and the hydrogen recycling device (4). When the light or heat is not available the recycled hydrogen gas is delivered to the fuel cell (5) to continuously generate the electric power or the heating device (6) provides heat to the solar battery (1) to continuously generate electric power. Electric current generated by the solar battery (1) and fuel cell (6) is controlled by the power management device (7) to comply with electric power specification for final usage.</p>							
2.	WO	WO/2009/107776 - SOLAR POWER GENERATION SYSTEM	03.09.2009	E04D 13/18	PCT/JP2009/053683	KYOCERA CORPORATION	KANBARA, Tatsuji
<p>Disclosed is a solar power generation system comprising a solar cell module (1), an installation mount (2) that supports a pair of the edges of the solar cell module (1), and at least one supporting member (3) arranged on the side of the non-light receiving surface (1B) of the solar cell module (1). The supporting member (3) is disposed so that is separated from but can come in contact with the non-light receiving surface (1B) of the solar cell module (1) due to the deformation of the solar cell module (1). The deformation of the solar cell module (1) increases in response to external force applied to the solar cell module (1).</p>							
3.	MX	PA/a/2000/012849 - SOLAR POWERED ELECTRICAL GENERATING SYSTEM	28.11.2003	B60K 16/00	PA/a/2000/012849	SCOTT SPARKMAN	SCOTT SPARKMAN
<p>A solar powered electrical generating system (10) includes a continuous hydraulic circuit (12) carrying a liquid (14) therethrough. A boiler (16) is fluidly connected to a first side of the continuous hydraulic circuit (12). A facility (18) is for heating the liquid (14) within the boiler (16). A condenser (20) is fluidly connected to a second side of the continuous hydraulic circuit (12). A facility (22) is for cooling the liquid (14) within the condenser (20). A hydraulic motor (24)</p>							

PATENTSCOPE® (9)

Input search terms

Term 1: solar

» Keep term untranslated when expanding query in other languages

» Less  More

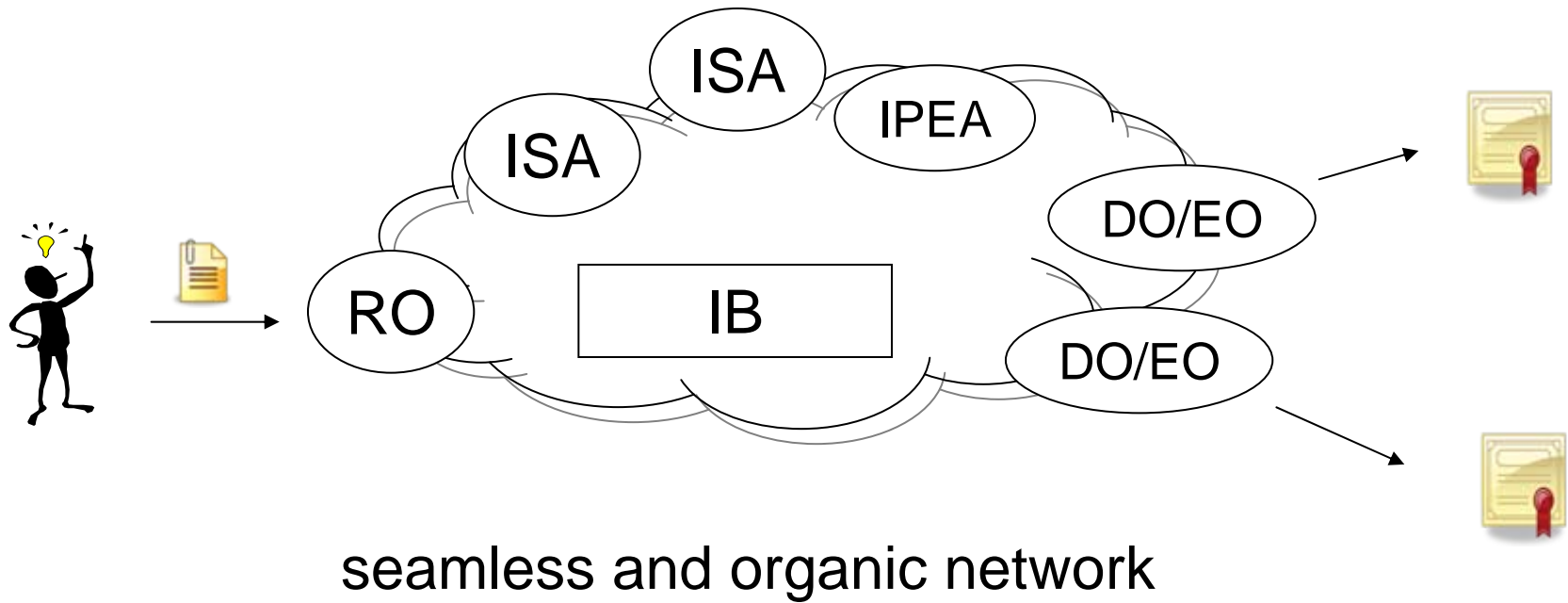
photovoltaic sun marine offshore sunlight
 shading photovolatic sea seaside sun energy
 fotovoltaic pv photo voltaic plasma treated

Term 2: power

Term 3: solar power

Possibilities for future developments (1)

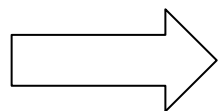
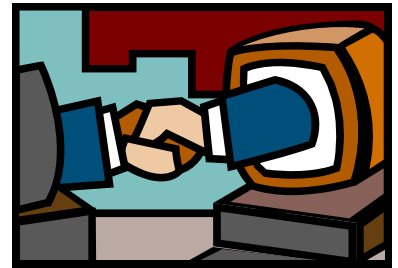
network



Possibilities for future developments (2)

- Intelligent coordination among international authorities and national offices
 - Collaborative search and examination
 - Feedback of national examination

- Prior art search in multilateral language [CLIR]
 - Need to enrich corpora in different languages
 - Machine translation is essential



High quality patents worldwide !!

Thank you !