

# CWS.ATR.PI.2010.KR

## Annual Technical Report 2010 on Patent Information Activities submitted by Republic of Korea (CWS/ATR/PI/2010/KR)

Where URLs are requested below, it is preferred that either URLs which are likely to remain stable over time (three years or more) are provided, or home (main) page URLs are provided with a short explanation of how to access the corresponding information.

The term "patent" covers utility models and Supplementary Protection Certificates (SPCs). Offices which issue design patents should report their design patent information activities in their Annual Technical Reports on Industrial Design Information Activities.

### I. Evolution of patent activities

#### Changes experienced in terms of application filings and grants with respect to the previous year

Below are the changes of filings/grants for patents/utility models in 2010, compared to 2009:

- Patents: filings - 170,101 (a 4% increase) / grants - 68,843 (a 21.3% increase)
- Utility models: filings - 13,661 (a 20.3% decrease) / grants - 4301 (a 8.9% increase)

#### Trends or areas experiencing rapid changes with respect to the previous year

As can be seen from the above figures, patent filings have increased by 4%, breaking the trend of the consecutive decrease which had existed since 2007, while applications for utility models are still decreasing, a trend that has continued since 2006.

#### URLs of web pages of the Office's website that provide statistics related to patents

[http://www.kipo.go.kr/kpo/user.tdf?a=user.english.html.HtmlApp&c=97000&catmenu=ek07\\_03\\_01](http://www.kipo.go.kr/kpo/user.tdf?a=user.english.html.HtmlApp&c=97000&catmenu=ek07_03_01)

### II. Matters concerning the generation, reproduction, distribution and use of primary and secondary sources of patent information

#### Publishing, printing, copying (main types of publications of the Office in the field of patent information, etc.)

##### Gazette publication

PDF gazettes of Korean patents and utility models have been made available through the website of the Korean Intellectual Property Office (KIPO) since July 2001 for quick and easy access by the public. Additionally, the gazettes are offered by email to people who are subscribed to the mailing service. Furthermore, DVD-ROM gazettes are produced in XML format (which was until February 2005 produced in SGML format), to be distributed to 10 domestic and 11 foreign offices twice a month. The gazettes on patents and utility models published in 2010 contained the following:

- 135,331 patent applications and 67,477 patent grants
- 12,793 utility model applications and 4,241 utility model grants

##### Data Management Center

To generate high-quality data and fix any errors found in the internal database, KIPO has been operating the Data Management Center since May 2002, based on data collected from foreign Industrial Property (IP) offices as well as its gazette publications. As of the end of 2010, the amount of data that was built onto the KIPOnet system totaled to approximately 14.8 million and in the same year the analysis of this database was conducted for the following:

- i) Data quality management through data verification and refinement
  - Verification of 278,000 data of patents and utility models published in gazettes
  - Setting up of 205 new business rules to help automatic inspection of erroneous data
  - Automatic inspection of 10.4 million patent/utility model data based on the existing business rules
- ii) Dissemination and exchange of data
  - Dissemination of approximately 29.6 million Korean patent/utility model data
  - Publication of 220,000 patent/utility model data via the Internet
  - Electronic exchange of 217,000 priority documents with other offices including WIPO

#### Main types of announcements of the Office in the field of patent information

##### KIPO's Website

Through the daily Internet gazette publications in the above items, visitors of KIPO's website (<http://www.kipo.go.kr>) are able to view the PDF gazettes which have been published for three recent months. In addition, they can also be provided information on the topics of their interests through a push-mail service. Other key information announced at KIPO's website is as follows:

- Announcements about notifications that couldn't be delivered. For example, due to an applicant changing his or her postal address without notifying KIPO
- Advance notice on patents expiring due to the non-payment of fees
- Other notices, such as changes in laws or fees

#### Word processing and office automation

With the launch of the KIPOnet system in 1999, almost all Industrial Property Right (IPR) administrative processes have been computerized including the receipt, examination, grant and publication of applications. Below are the highlights of the follow-up developments by year.

- 2001: Began sending examination results to applicants via email and SMS, publishing official gazettes on the Internet, and handling most registration and opposition procedures online.
- 2002: Started handling all trial-related procedures online.
- 2003 to 2004: Integrated and re-designed legacy subsystems, architectures, databases as well as the adoption of middleware and workflows.
- 2005: Launched 24/7 nonstop services, a work-at-home examination system, an online PCT e-filing system, and a real-time notification service.
- 2006: Set up an infrastructure for sharing patent information and examination results with other Industrial Property Offices (IPOs) and began a public service for informing applicants of when their applications would be examined.
- 2007: Started receiving patent and utility model applications filed through the WEB-PASS, which is a web-based e-filing system.
- 2008: Enabled applicants to submit documents related to registration, trial or other intermediate processes online through the WEB-PASS above and started having automatic notifications mailed to applicants and handling semiconductor integrated circuit layout registration procedures online.
- 2009: Improved our e-filing portal so that it allows individual users to more efficiently manage their patent affairs, developed a commercial MS-WORD-based editor to replace existing filing editors, and enhanced the fee payment system.
- 2010: Introduced a fee mileage system and developed a number system which indicates the turn of examination of applications.

### **(New) techniques used for the generation of patent information (printing, recording, photocomposing, Optical Character Recognition (OCR), etc.)**

Digitization Center (Data Conversion Center)

Since January 2001, the Digitization Center, the operation of which has been entrusted to the Korea Institute of Patent Information (KIPI), has been digitizing paper-based applications for patent and utility model, amendments, and all the other intermediate documents. The Center automatically receives applications and performs formality checks and data conversions on them. Delays and errors during the conversion process are avoided through the use of state-of-the-art technologies, such as Multi OCR, dual key-inputs, automated verification of electronic data, and color-scanning technology for documents attached to applications. In 2010, the Center digitized a total of 73,719 documents. In all, about 777 different kinds of paper-based documents, including 3,481 patent applications and 1,638 utility model applications were digitized.

### **URLs of web pages of the Office's website that provide access to online publication of patent documents and gazettes, and to other primary and secondary sources of patent information, including patent publication servers and download of bulk patent data**

[http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=4013&catmenu=m04\\_03\\_03](http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=4013&catmenu=m04_03_03)  
<http://eng.kipris.or.kr/>

## **III. Matters concerning abstracting, classifying, reclassifying and indexing of technical information contained in patent documents**

### **Abstracting, reviewing, translating**

Korean Patent Abstracts

For international information sharing and overseas protection of Korean industrial property rights, the Korean Patent Abstract (KPA), which is a publication of the abstracts of domestic patent applications and grants in English, has been issued on CD-ROMs since 1997. These CD-ROMs are distributed to 39 IPOs including the IPO of the US, Japan, and the UK, and seven organizations including WIPO and the EPO. Until the end of 2010, approximately 1.58 million patent applications had been published and built into a database.

### **Classification<sup>1</sup>, preclassification<sup>2</sup> (if applicable), and reclassification<sup>3</sup> activities; Classification system used, e.g., International Patent Classification (IPC), other classification (please indicate whether or not patent documents are classified by your Office and, if so, which classification is used)**

International Patent Classification

KIPO's official classification system for patents and utility models is the International Patent Classification (IPC). Pre-classification is outsourced to a professional agency and each examiner checks which subgroup an application should be classified under.

In 2010 about 196,093 data were classified according to the 2010 IPC version. Additionally, 78,192 data related to the classes "A01M, B21D, B60R, B82Y, C07G, F16D, F23B, F24F, F41H, G06F, G06T, G07B, H01R, H04B, H04J" were reclassified in accordance with the 2011 IPC version.

### **Hybrid system indexing**

When an IPC is identified for each application, a hybrid system, which consists of classification codes and complementary indexing codes, is used for easier searches of technologies in applications.

## **IV. Search file establishment and upkeep**

### **File building**

For facilitating examiners' search, KIPO has built a database of patents and utility models on its patent search system. It is comprised of domestic data such as full texts of Korean patent and utility model applications published as far back as 1983 and Korean patents and utility models granted since 1947, in SGML/XML and image files. It also includes foreign patent data, which is continuously being collected from the EPO (FPD and IFD), the JPO (Patent Gazettes, Search Master and PAJ) and the USPTO (Patent Specifications), as well as publications from Australia, Canada, China, France, Germany, Russia, Taiwan, and the UK. As at the end of 2010, the amount of such data in KIPO's search system had reached almost 153 million, comprising of about 6.3 million domestic patent data and 146.6 million foreign patent data. For continued increase of such data and the quality improvement, in 2010, the Data Quality Management System was advanced, based on the enhanced guidelines, with a supportive system of managing data quality and ownership. It also aims to support in:

- i) Managing guidelines and standards for data in preparation for the next generation KIPOnet system (i.e., G-KIPOnet)
- ii) Building an integrated search data model towards a future-oriented search system
- iii) Producing deliverables of internal standards for development projects towards G-KIPOnet
- iv) Continually inducing validation queries and supplementing guidelines/work procedures for data quality management

## **Storage, including mass storage media**

### **Storage configuration**

Depending on the use and importance of data, KIPOnet's storage configuration is divided into two sections: an IPR administration section and a search section. The IPR administration system uses RAID 1 for its integrated database, imaging data (as original data) and XML data, using 50% of the disk (the rest of the disk is used for mirroring), while forming a Shadow Image that facilitates quick daily backups and recovery. On the other hand, the search system applies RAID 5 using 75% of the disk (the rest of the disk is used for parity) for search data, index data, large-sized images, and representative drawings.

## **Documentation from other offices maintained and/or considered part of the available search file**

Foreign data available through KIPO's search system includes the following:

- Bibliographies: Search Master (JP/1975~), DocDB (EP/1974~), UK(1991~), Canada (1999~), Australia (1998~), Germany (1991~), France (1992~)
- Abstracts: Japanese Patents (JP/1975~1996), Taiwanese Patent Applications (TW/2003~), Chinese Patent Applications and Granted Patents (CN/1985~)
- Full Texts (or full images): Japanese Patents and Utility Models (JP/1975~), USAPat (US/1975~), Espace A (EP/1978~), Espace-B (EP/1990~), Espace-world (EP/1978~Nov. 2002), Impact Rule87 (Dec. 2002~), etc.

## **V. Activities in the field of computerized and other mechanized search systems**

### **In-house systems (online/offline)**

#### **KOMPASS (Korean Multifunctional Patent Search System)**

Since it was first launched in June 1996, KIPO's patent search system has been continually improved in its functionality, in accordance with the data accumulation. In July 2009, it was renamed 'KOMPASS' with the implementation of the WEB2.0 search interface. KOMPASS now supports simple and convenient searches of full text data collected from the patent gazettes of foreign offices such as the EPO, the JPO, and the USPTO, including our domestic gazette data. Below are its main features and functions:

- Full text/Keyword search for domestic/foreign publications mentioned above and non-patent literature such as theses, reports and periodicals, including electronic journals such as IEEE and ScienceDirect
- Keyword expansion search: embedded thesaurus dictionary and automatic translation of a Korean inquiry into English/Japanese in order to search documents
- Machine translation: translation of Japanese/English documents into Korean
- Classification code search: code search by keyword and IPC mapping with F-term, US CLASS, ECLA, FI and F-Term
- Upgrade of search engine (i.e., K2, Docruzer, Search Formula-1) and the adoption of Ria technology for the improvement of performance and user convenience

To improve and enhance the KOMPASS services in 2010, the follow-up activities began: the integration of patent database between KOMPASS and KIPRIS, the shortening of the uploading cycle of gazette data, simultaneous views of both applications and registration data from US, JP, EP, and WO, attachments of PDF files on examiners' saving of references, and the replacement of a missing drawing with a full image of an application for the drawing retrieval in en-bloc.

#### **Online Work-at-Home System**

Since March 2005, a remote online work-at-home examination system has supported examiners who volunteer to work from home. They are enabled to securely access the KIPOnet system from the comfort of their homes through a VPN, fingerprint identification system, and a government public key infrastructure (GPKI). To prevent the leakage of undisclosed patent documents, Digital Rights Management (DRM) technology has been incorporated into the system. In an effort to make the work-at-home system more efficient and better managed, an additional system was developed and incorporated into the work-at-home system in 2008. The new system facilitates the receiving of applications online from prospective work-at-home examiners, recording of their work hours and the management of the list of undisclosed patent documents. As at the end of 2010, 78 patent examiners were participating in this system.

### **External databases**

Through an integrated interface, our examiners efficiently search non-patent literature such as the databases of STN, Chemical Abstracts and IEEE Abstracts. In addition, access is provided to science literatures, such as Thomson Innovation (DWPI), Westlaw, ScienceDirect, and KP-Journal, JJAP, BCSJ, ACS, OSA, Science, Nature, Wiley-Blackwell, CCD, Springer, including domestic journals such as DBPIA, KISS, AIP&APS and law database such as LawnB, Westlaw, Japan, ACM, Merck Index, via the Internet.

## **Administrative management systems (e.g., register, legal status, statistics and administrative support)**

KIPOnet has many sub-systems that support managing data produced during the various phases of the IP administrative processes, such as, dealing with matters that originate in the transfer of data from one phase to another and streamlining search-related administration. Below are some of those sub-systems.

#### General Information Management Subsystem

The General Information Management Subsystem generates a variety of statistical and policy data on patents, utility models, industrial designs, and trademarks by using a variety of information retained in KIPO's databases. The system efficiently manages large volumes of data and provides end-users with various functions and tools with which to access the data.

#### Electronic Approval and Routing Subsystem

The Electronic Approval and Routing Subsystem enables electronic approvals of IPR and general administration processes. The system comprises of two major parts: an approval system for IPR examinations that was introduced in 1999; and an approval system for general administration that was launched in June 2000. The approval system for general administration was replaced with the Onnara System in January 2007. The Electronic Approval and Routing Subsystem is used for the following:

- Electronic approval: preparation, approval; dispatch and receipt of electronic documents; management of a document box; and circulation of documents
- Electronic mail: preparation, transmission, receipt, and management of emails
- Electronic bulletin board: for the submission of posts and reviews
- Management and preservation of records

The system has a pop-up window feature, which shows messages on the approval status of documents and could be used for managing individual schedules. The electronic approval system was used for 99.66% of all the documents approved in 2010.

#### Knowledge Oasis

For the efficient management of a variety of knowledge and information created by KIPO's staff, the Knowledge Management System was launched in October 2001 and was renamed Knowledge Oasis (KOASIS) in 2006. KOASIS supports KIPO staff members to share knowledge through the bulletin board of the KOASIS website. Furthermore, it offers a keyword search function for gleaning details of approved documents and allows them to utilize various management tools, such as knowledge maps, knowledge warehouses, personalized portals, and cyber knowledge communities. In addition, the system enables KIPO to share ideas and knowledge with 18 external R&D institutes including the Electronics and Telecommunications Research Institute through an online Q&A communication corner. Some high quality information posted on KOASIS is available to the public through KIPO's homepage and private search portals like Naver. Since November 2007, it has also been linked to the Government's Knowledge Management System for more extended information sharing between government agencies. In 2008, a 'WIKI Corner' and a multi-dimensional knowledge map were built for more efficient use of KOASIS and in 2010, an integrated search function of the accumulated knowledge and a trade function of knowledge mileage were added to KOASIS.

### Equipment used (hardware, including the types of terminal and network used, and software), carriers used

#### Hardware

As at the end of 2010, KIPOnet had 42 UNIX Enterprise servers, 73 NT servers, and 22 Linux servers. For higher availability, individual servers are clustered for the e-filing system, IPR administration system, and search system and particularly between the Homepage Server and the Portal Server. In case of system failures, the cluster paired systems temporarily substitute for each other. The combined storage capacity of the 22 servers is 502 terabytes including 13 SANs. The peripherals consist of 6 backup devices, 2 jukeboxes and 383 sets of network equipment. The improvements made in terms of hardware performance in 2010 are as follows:

- Increase of IT resources for administration systems and search systems: 7 servers, 24.8 TB Storage, 48GB Memory
- Replacement of old legacy equipment: 23 servers and 211.8TB Storage
- Follow-up measurement after the checkup for IT equipment
- Structural evaluation of administration systems to prevent their disorder
- Inspection of the availability of administration systems/search systems/homepage systems through a dualized test
- Installation of a security patch for the administration systems to improve the security

#### Network

Our efforts to advance the network for KIPOnet and enhance related security in 2010 are as follows:

- Improvement of transmission speed enough to be perceptible by users
- Configuration of SLB (server load balancer) for Korean search engine to improve the performance
- Replacement of old (outdated) network equipment: L2 Switch (27 sets), L3 Switch (4 sets) and L4 Switch (10 sets)
- Network connection with the R&D IP Center
- Consultation on the 10Gbps migration for KIPOnet
- Regular dual test for more stable operation of network equipment including communication lines

#### Software

For databases, performance tests and recovery practice tests are regularly conducted with support from Oracle. In addition, KIPO introduces and upgrades system software such as DBMS, web servers and middleware to improve the KIPOnet system's performance and functionality. As at the end of 2010, about 207 commercial software applications were in use. The software applications can be grouped into three major groups as follows:

- 189 perpetual licensed software including DBMS and web servers
- 5 subscription licensed software including Vi Robot and other security products
- 13 packaged software for KOASIS, web mail, messenger, performance management system, electronic approval system, career development management system, Call Center, DW, Homepage portal, ITA/EA, DQM, open-end statistics portal, and e-filing portal

## VI. Administration of the industrial property office library, and information products and services available to the public (relating to facilities, e.g., for lodging applications, for assisting clients on searching procedures, for obtaining official publications and registry extracts)

### Planning, administration, automation, security, buildings

The Information Policy Bureau organizes comprehensive services for the public by managing the IP Digital Library and the e-Filing Portal System, while other departments support customers according to their specific duties and responsibilities.

#### e-Filing Portal System

The e-Filing Portal System was established to transform KIPO's website into an online service portal for the cyber community. Owing to this service, applicants can file their applications online and pay the relevant fees by Internet banking and they are informed of the legal status of their applications by e-mail and/or SMS. They can also request and receive certificates, download electronic dossiers, such as priority certificates via the Internet and check the progress of their request. In addition, a public service for informing applicants in advance, of when their applications would be examined, has been made available since October 2006. Moreover, individual applicants can check the status of their applications, while enterprises through a HTML-based service titled How is my application going?, while universities, institutes and IP law firms can do the same through a SOAP-based web service. This e-Filing Portal System is linked to the WEB-PASS, which is a web-based e-filing system used for intermediate documents and registration/trial related documents, as well as receiving all kinds of IPR applications. Furthermore, in 2010, 12 kinds of mobile applications were introduced into this System in accordance with the rapid proliferation of smart phone users.

#### IP Digital Library

The IP Digital Library located at KIPO's headquarters supports its customers by enabling them to search for patent information in a variety of formats including online, microfilm, and paper, as well as for any non-patent literature the Library has. They could also order copies of published patent applications as filed. In 2010, the number of users for such copy and view services reached 12,769.

#### Customer Service Center

To integrate scattered counseling resources and promptly provide technical advice, the Customer Service Center was established in March 2002. Its main services are on the following issues:

- Procedural and technical advice on (electronic) filing, examination, grant, trial, search and use of patent information, as well as on international patent applications
- Use of the Expert System (e-filing support system) and remote consultation
- Consultation through mobile Web/App or Twitter
- Outreach service: informing applicants in advance that their applications would be extinguished and suggests reasonable solutions

#### Security

In terms of security, the digital signature of electronic documents is used based on a public key infrastructure for encryption and decoding. 24/7 Enterprise Security Management has been introduced for security equipments and servers. Also, a key logger security and a hacking-diagnostic system are used for protecting PCs against other risks, such as spy-wares; and a single sign-on system has been implemented for tighter security in accordance with the standardized Directory Access Protocol. Diverse security tools have been used to block illegal access to undisclosed database and unauthorized access to the main database.

Particularly, in 2010, SBC (Server Based Computing) was introduced for enhancing the security of patent information. Against external attack threats, network based security systems such as UTM, Firewall, IPS, and VPN have been operated. The extended application of SecureOS is also useful for authorization control to servers.

KIPOnet won the ISO 27001 certification in 2006 in recognition of its highly secure web services for applicants, SecureOS for servers, individual information protection marks, and secure site mark. Accordingly, among government departments, KIPO has consecutively won the top spot in security assessment (from 2007 to 2010) and in personal information protection (from 2008 to 2010).

### **Collection management, preservation**

#### IP Digital Library

The IP Digital Library archives patent documents, such as bibliographic data, abstracts and full texts, in a variety of media such as paper, microform, CD-ROM, and DVD-ROM. The documents are obtained through exchange agreements with 18 countries and 4 international organizations, including the USPTO, WIPO, and EPO. The Library also has non-patent literature (some of which were donated while others were purchased), which comprises of over 32,310 volumes and 546 kinds of periodicals related to science and technology, CD-ROMs of annual reports and statistics. The collections are arranged according to their category and volume number. KIPO examiners and the public are allowed access to this collection. The electronic database is provided at the Internet corner of the IP Digital Library. The library also offers original copies of electronic materials, such as electronic journals and e-books.

### **Interlibrary lending, resource sharing, networks of patent libraries in the country**

#### Cooperation between Libraries

KIPO has shared IP related publications with:

- the Korea Institute of Science and Technology Information through DDS (Document Delivery Service) for complimentary or subscription based materials and through the NDSL (National Digital Science Library) service that provides access to the academic theses and scientific journals of 590 domestic libraries and information centers
- the National Assembly Library since 2002 on over 3.46 million volumes of thesis, government publications, seminar materials, and books
- the Korea Education & Research Information Service through WILL (Web Inter Library Loan) and DDS.

### **Information services available to the public (including computerized services and search files contained in libraries remote from your Office and patent information posted by your Office on the World Wide Web)**

#### Website Services

KIPO's homepage (<http://www.kipo.go.kr>) is an information portal for its customers. General information on IP and some individual announcements, such as undelivered notifications due to the changes of an applicant's address, notice on patents expiring due to the non-payment of fees, etc., are available at the website. Also available on the website are the Internet gazette search service and notifications on customers' areas of interests through a push-mail and/or an SMS service. To facilitate access to IP information available on the website by the sick, aged and/or disabled, the web technologies defined by W3C and a voice service have been implemented. The voice service reads texts on the website out loud for the benefit of people who can either not see or read. Web standards have been implemented for the access under diverse web browsing environments and I-PIN for the protection of personal information.

Besides, there are two additional domains for our public: one is for online filing services (<http://www.patent.go.kr>), which was completely separated from KIPO's homepage in 2009 and the other is for mobile services ([m.kipo.go.kr](http://m.kipo.go.kr)), which was built in 2010 to meet the needs of smart phone users.

#### Korea Industrial Property Rights Information Service

Since January 2001, domestic IPR information (including KPAs) has been offered free-of-charge through the Korea Industrial Property Rights Information Service (KIPRIS), which is available at <http://www.kipris.or.kr/kor/main/main.jsp>. The service also covers business method patents, up-to-date information on the legal status of applications, the full text of Korean applications and granted patents in PDF, as well as full texts of foreign patents from the US, JP, Europe, and WIPO. For foreign users, KIPRIS offers 'K2E-PAT' service that is a real-time machine translation service of the full texts of Korean patents and utility models into English language. It also offers legal status information on applications in English, and citation information on prior arts in the search retrieval menu. In 2010, the number of search hits by visitors was over 27.6 million while the number of visits was 15.5 million. Additional achievements are as follows:

- Database of 2.8 million domestic data and 24.4 million foreign data (on the basis of the number of applications)
- Unification of patent database between KOMPASS (search system for KIPO examiners) and KIPRIS (search system for the public)
- Launch of 'Patents of my concern (interest)' service
- Service improvement of KPAs
- Launch of KIPRISplus service

#### IP Mart

In April 2000, the Internet Patent Mart, so-called IP-Mart, was launched to create opportunities for transferring patented technologies online and to overcome the limitation of short-lived traditional technology fairs. It provides a variety of IP information to individual inventors and SMEs on promoting innovation. In 2010, the IP-Mart database grew to a total of 53,620 technologies with 52,712 members, while 140 technology transfers were made.

#### URLs of web pages of the Office's website for electronic filing of patent applications

<http://www.patent.go.kr>

#### URLs of web pages of the Office's website that provide information on business procedures such as: filing, publication, examination and grant procedures related to patents; opposition and appeal procedures related to patents; etc.

[http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=10001&catmenu=m04\\_01\\_01](http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=10001&catmenu=m04_01_01)  
<http://www.kipo.go.kr/en/>

#### URLs of web pages of the Office's website that provide a description of information products and services offered by the Office (e.g., patent search service(s) and patent databases), as well as information on how to access and utilize them

<http://www.kipris.or.kr/kor/main/main.jsp>

## VII. Matters concerning mutual exchange of patent documentation and information

#### International or regional cooperation in the exchange of machine-readable information, e.g., bibliographic data, abstract and/or full text information

As at the end of 2010, patent documents were being collected from 25 offices including the EPO and WIPO. In particular, bibliographic, image, and full text data are regularly obtained from Australia, Canada, China, the United Kingdom, and Taiwan as well as from EPO, JPO, and USPTO. These data are loaded into our search system for our examiners' reference.

IT experts meetings with EPO, JPO, SIPO, USPTO, and WIPO on the use and dissemination of patent information as well as on the electronic exchange of search databases including priority documents are ongoing.

#### Dissemination of Korean patent information by K-PION

To help examiners of foreign IPOs with their examination, KIPO launched a Korean to English (K2E) translation service for publications on patent/utility model applications, the so-called "the Korean Patent Information Online Network (K-PION)" in November 2005, which is now available at <http://k-pion.kipo.go.kr/>.

The K-PION service is operated 24/7 based on a K2E translation engine customized for patent documents and approximately 3.7 million technical terms and sentence patterns. It has covered translation of file wrapper information since November 2006, English keyword search for gazettes since December 2008, and Korean trademarks and designs since 2009. More remarkably, in 2010, K-PION Web Services were developed to be on-board into search systems of other IPOs and search functions such as thesaurus and similar search queries were advanced.

#### Trilateral Document Access Services

KIPO launched the TDA-FWA (Trilateral Document Access-File Wrapper Access) system to share examination results online with the JPO under a project called the Korea-Japan Patent Prosecution Highway in April 2007 and linked it to our internal system in July of the same year. The TDA-FWA was extended to the USPTO in November 2008 in order to reduce examination pendency period and to increase the quality of examinations of both offices; ultimately strengthening the international protection of industries and technologies of each country. In 2009, KIPO undertook a pilot project with the USPTO for the Strategic Handling of Application for Rapid Examination, a project through which the office of second filing awaits the search and examination results of the office of first filing to reduce the workload. As an effort to strengthen the security of the TDA, the VPN equipment was replaced with a new one in 2010.

## **Medium used for exchange of priority documents**

The electronic exchange of priority documents with the JPO started via CD-ROMs in July 2001 and was made possible online in August 2002. Since April 2008, it has been conducted through the TDA method, which fully automates the priority document exchange process. The TDA method has also been extended to both the USPTO in October 2008 and the EPO in December 2008. The number of priority documents exchanged via the TDA in 2010 was 9152 between KIPO-JPO, 2612 between KIPO-EPO, and 16,413 between KIPO-USPTO, respectively. In addition, KIPO has also been electronically exchanging priority documents with WIPO since September 2004 and continued extending the scope of documents, for example, translations and applications under the PCT.

## **Medium allowed for filing applications**

KIPO allows applicants to file applications either online, on paper, or on floppy disks. All paper-based applications are converted into electronic format. In 2010, the e-filing rate for patent applications rose to an average of 98.1% amounting to 166,790 applications, while utility model applications went up by 88% amounting to 12,020 applications.

## **VIII. Other relevant matters concerning education and training in, and promotion of, the use of patent information, including technical assistance to developing countries (please indicate URLs of web pages of the Office's website wherever appropriate)**

### **Training courses for national and foreign participants, use of audiovisual means**

#### **National IP Education Portal**

The National IP Education Portal was opened in May 2002. It is managed by the International Intellectual Property Training Institute (IIPTI) and offers general training programs to a diverse group of people interested in IPRs and inventions. Trainees range from elementary school students to senior citizens. In these courses, experts from the industry, law, administration, and educational sectors give presentations on relevant IP information, including basic knowledge of IPRs. As at 2010, the IIPTI had managed 156 contents and hosted approximately 322,965 users. Specifically, through the Portal, it has supported 44 universities by providing online education on IP and professional tutoring programs to students.

#### **International Intellectual Property Training Institute**

In 1987, the International Intellectual Property Training Institute (IIPTI) was established in Seoul as an affiliate of KIPO. It initially offered 11 IPR training courses. In February 1991, it moved to the Daedeok Science Valley in Daejeon with the support of WIPO and the United Nations Development Programme. The IIPTI offers the following training programs, depending on the targeted trainees:

- Courses for government officials: Provided in English depending on their level/grade, including the WWA DL-101 Course, courses on controversial issues in IP as well as other relevant courses
- Courses for the private sector: Focused on both expanding the nation's IP base and for raising awareness of IP. These courses mostly target patent attorneys, R&D personnel and IP staff of enterprises, towards cultivating IP experts and helping to secure more customized programs and practical exercises.
- International courses: About eight courses are offered for foreign trainees including the WIPO ASIA-PACIFIC Regional Seminar, courses on Korean IP legal systems and the KIPOnet system, etc.
- Invention education: To cultivate invention and train invention coaches. In 2009, a new team was entrusted with strengthening the invention education process for gifted students.
- Courses for enterprisers: To train business persons on future-oriented, new growth industries, particularly by offering special courses to gifted students at special centers in KAIST and POSTECH

#### **KIPO-WIPO Joint IPR Education Projects**

Following the success of the English version of the online educational material, IP Panorama, KIPO and WIPO have developed it in other languages since 2009. In 2010, it was developed in official UN languages such as Arabic, French, and Spanish. Particularly, in March of the same year, an international symposium was held at the headquarters of the League of Arab States (LAS) in Cairo, Egypt, to celebrate the official release of the Arabic version of 'IP Panorama.' The symposium culminated in the adoption of the Cairo Declaration, the aim of which is to strengthen IP cooperation between WIPO, KIPO, and LAS.

In addition, WIPO and KIPO have jointly managed a blended IP program based on the IP Panorama targeting WIPO member states. In 2010, 603 trainees took the online course and 33 trainees the offline course of the blended program. In collaboration with the WIPO Worldwide Academy (WWA), KIPO has offered the DL-101 course that covers the main areas of IPR in English to students of domestic universities that are affiliated with KIPO. Students, who take these courses, are issued with WIPO WWA and KIPO joint certificates. In 2010, 2220 students completed the course in 54 sessions. During the same year, 1020 trainees from industries, R&D institutes, and patent attorney offices took the specialized course for industry in 23 sessions.

### **Assistance to developing countries (sending consultants and experts, receiving trainees from developing countries, etc.)**

#### **PCT-ROAD**

The PCT Receiving Office ADministration (PCT-ROAD), which was developed in conjunction with WIPO using the Korea Funds-in-Trust at WIPO in May 2005, supplemented the function of the PCT-EDI (Electronic Data Interchange) to enable the online exchange of PCT-related documents in 2007. As at 2009, it had been distributed to 28 countries, including Malaysia, Philippines, Thailand, and Mexico. Particularly, in February 2009, KIPO and WIPO jointly held a PCT-ROAD user training program titled 'In-depth Training Program on the PCT E-Processing System,' targeting patent examiners from five IPOs including Egypt and Malaysia, to give them a better understanding of the PCT-ROAD system and thus facilitate their efficient use of PCT-ROAD. Due to the occasional revision of PCT regulations, PCT-ROAD has also accepted such legal changes with continued quality improvement.

#### **KIPO-APEC Training Program for IPR Information Facilitators**

In 2010, a training program for IPR information facilitator, for which approximately 140 thousand dollars was approved by APEC, would be conducted in 2011 with further financial support from KIPO. The program would comprise three steps: online training based on IP Xpedite, offline training given to the two groups (one group focusing on IP information searches, and the other group on an intensive course), and the final practice teaching course.

### **Promotional activities (seminars, exhibitions, visits, advertising, etc.)**

## 2010 PATINEX

To exchange information and facilitate the use and dissemination of IP information, an annual IP conference titled PATINEX (PATent INformation EXpo) has been conducted by KIPO since 2005. The conference comprises of three events: a conference which focuses on the introduction of strategies and practices of IP information; an exhibition which shows diverse up-to-date services and solutions of IP information; and a workshop where participant service providers give in-depth consultations on the use of IP information. The sixth PATINEX was held in September 2010 with:

- two main themes 'IP & Open Innovation' and 'IP & Essential Patent,' aiming to raise awareness of open innovation and standard patents and to assist companies in building their strategic IP portfolios and
- an exhibition which gave IP information service providers an opportunity to promote and market their products and services at ten exhibition booths and six workshops.

## Studies to identify trends in new technology, e.g., by the use of patent statistics and preparation of monographs

### Survey and Analysis of Patent Statistics

To encourage the greater use of valuable patent information for R&D, an analytical report titled 'Patent Trends of Korea' is being periodically published. In 2010, it reported the results of analyzing the trend of approximately 1.4 million patent applications filed from 2000 to 2009. The data was analyzed in terms of country, region, technology, and industrial area.

## IX. Other general information related to the Office that is available on the Internet -- URLs of web pages of the Office's website that:

### provide information on legislation related to patents

[http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=3031&catmenu=m02\\_02\\_01](http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=3031&catmenu=m02_02_01)  
<http://www.kipo.go.kr/en/>

### contain the Annual Report of the Office

[http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=3072&catmenu=m02\\_03\\_04](http://www.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=3072&catmenu=m02_03_04)  
<http://www.kipo.go.kr/en/>

### contain patent-related news regarding the Office

[http://www.kipo.go.kr/kpo/user.tdf?a=user.news.trot.BoardApp&c=1001&board\\_id=trot&catmenu=m02\\_01\\_01](http://www.kipo.go.kr/kpo/user.tdf?a=user.news.trot.BoardApp&c=1001&board_id=trot&catmenu=m02_01_01)

## X. Other relevant matters

1.	Classification is allotting one or more classification symbols (e.g., IPC symbols) to a patent application, either before or during search and examination, which symbols are then published with the patent application.
2.	Preclassification is allotting an initial broad classification symbol (e.g., IPC class or subclass, or administrative unit) to a patent application, using human or automated means for internal administrative purposes (e.g., routing an application to the appropriate examiner). Usually preclassification is applied by the administration of an office.
3.	Reclassification is the reconsideration and usually the replacement of one or more previously allotted classification symbols to a patent document, following a revision and the entry into force of a new version of the Classification system (e.g., the IPC). The new symbols are available on patent databases.