

SCIT.ATR.PI.2008.KR

Annual Technical Report 2008 on Patent Information Activities submitted by Republic of Korea (SCIT/ATR/PI/2008/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

In 2008, the number of patent applications was 170,632 representing a 1.1% decrease compared with the number for 2007; while the number of patent grants was 83,523, representing a 32.5% decrease compared with the figure for 2007. Similarly, there was a decline in the number of utility model applications but we witnessed an increase in the number of utility model grants. The number of utility model applications was 17,405, representing a 17.4% decrease while the number of utility model grants was 4,975, representing a 78% increase.

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.ip_info.ip_stat.BoardApp&c=1001&catmenu=m02_06_03

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 KIPO's website since July 2001 for quick and easy access by members of the public. Additionally, the gazettes are offered by email to people who are subscribed to the email service. Further, XML-formatted versions of the gazettes are produced on DVD-ROMs for distribution to 10 domestic and 11 foreign offices twice a month. The format of the DVD-ROM version was changed to XML from SGML in February 2005. The gazettes on patents and utility models published in 2008 contained the following:

- 114,833 patent applications and 85,148 patent grants
- 6,735 utility model applications and 5,017 utility model grants

Digitalization Center (Data Conversion Center)

Since January 2001, the Digitalization Center has been in operation for digitalizing paper-based gazettes, patent applications, utility model applications, and intermediate documents such as amendments, written opinions, and trials. The Center automatically receives applications and performs formality checks and data conversions on them. Delays and/or errors during the conversion process is 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 2008, the Center digitalized a total of 116,786 documents; on the average, the Center handled 465 documents per day for digitalization and it took about 2.26 days to digitalize each document. In all, about 777 different kinds of paper-based documents, including 4,605 patent applications and 2,467 utility model applications were digitalized.

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

KIPO's Website (<http://www.kipo.go.kr>)

On KIPO's website, applicants can find the following:

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

Internet gazette search service

Since July 2001, an Internet gazette search service has been made available through KIPO's website. At the website, customers can refer to publications from the year 2002 to date in PDF format. In addition, they can register to receive notifications about their topics of interests through a push-mail service or a Short Message Service (SMS).

Word processing and office automation

With the launch of the KIPOnet system in 1999, almost all Industrial Property Right (IPR) administrative processes were computerized including the receiving, examining, and granting of applications. In 2001, we began sending examination results to applicants via email and SMS; publishing official gazettes on the Internet, and handling most registration and opposition procedures online. And in 2002, we started handling all trial-related procedures online. From 2003 to 2004, the KIPOnet system was upgraded through the integration and re-design of its legacy subsystems, architectures, databases as well as the adoption of middleware and workflows. As a result of these, 24-7 nonstop services, a work-at-home examination system, an online PCT e-filing system, and a real-time notification service were realized in 2005.

In 2006, KIPO set up an infrastructure for sharing patent information and examination results with other IPOs and began a public service for informing applicants of when their applications would be examined. In addition, we continued to improve on the quality of the KIPOnet system. In November 2007, KIPO started receiving patent and utility model applications filed through the WEB-PASS, which is a web-based e-filing system.

And starting 2008, for the user's convenience, through the WEB-PASS, applicants can now submit documents related to registration, trial or other intermediate processes online. In addition, we started having automatic notifications mailed to applicants and handling semiconductor integrated circuit layout registration procedures online.

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=4135&catmenu=m02_01_02

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

Abstracting, reviewing, translating

Data Management Center

Since May 2002, the Data Management Center has been operating to provide high-quality data through the systematic analysis of patent and utility model data stored in the KIPOnet system by digitalizing those data and fixing any errors found in them.

As at 2008, KIPO's internal database amounted to 12.18 million (comprising 744,000 domestic data and 11,439,000 foreign data on patents and utility models) and the analysis of this database was conducted for the following:

- 1) Data verification: 50,051 gazette data on patents and utility models, 383,372 utility model application numbers, and comparisons between the 367,089 data stored in the search system and in the administration server of KIPOnet.
- 2) Data quality management: Guidelines for data management were updated and approximately 10.6 million data in the KIPOnet system were modified appropriately.
- 3) Data transfer: For online public services, in 2008, approximately 2.58 million raw patent data and 6.56 million raw utility model data were provided to the Korea Institute of Patent Information (KIPI). The KIPI serves the public by properly packaging these raw data, and making them available on the Internet through a free patent information search service - KIPRIS (Korea Industrial Property Rights Information Service).
- 4) Media management system: In 2008, newly collected 53,168 media were registered in the Media Management Center and assigned individual ID numbers which were used to store them in the system.

Korean Patent Abstracts

For international information sharing and overseas protection of Korean industrial property rights, the Korean Patent Abstracts (KPA), a publication of the abstracts of domestic patent applications and grants in English, have 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. As at the end of 2008, approximately 296,000 granted patents and 1,014,000 patent applications had been published and built into a database.

Classification¹, preclassification² (if applicable), and reclassification³ 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 2008, about 206,000 data were classified according to the 8th edition of the IPC, which has been in use since January 2006. Additionally, 35,200 data related to the classes that were revised in the 8th IPC edition (i.e., classes A62D, H02M, B60K, H04H, G05G, H04W) were reclassified in accordance with the 8th edition.

Hybrid system indexing

For classifying patents and utility models according to the IPC, a hybrid system, which consists of classification codes and complementary indexing codes, are used.

Bibliographic data and full-text processing

KIPO uses the searchable SGML and XML formats for its search system. Currently, KIPO's examiners are able to search the full text of Korean patent and utility model applications published as far back as 1983; and examine Korean patents and utility models granted since 1947. They can also search bibliographic and image data from the EPO, JPO, and USPTO, as well as Australia, Canada, China, France, Germany, Taiwan, and the UK.

IV. Search file establishment and upkeep

File building

Along with domestic official gazettes, foreign patent data is continuously being collected from the following sources: the EPO's FPD and IFD, the JPO's Patent Gazettes, Search Master and PAJ, and the USPTO's Patent Specifications, and from the countries listed in the preceding sub-section.

For continued improvement of the quality of such data, in 2008, a portal system was developed to access the Meta Management System, Data Quality Management System and the Application Impact Management System. In addition, reverse engineering was introduced to refine the data architecture and a working group for discussing and coordinating data quality issues was established. Additionally, the working group is expected to induce validation queries for patent data and prepare guidelines for data quality management.

As at the end of 2008, the amount of patent technology data in the KIPOnet search system had reached almost 140 million, comprising of about 11 million domestic patent data and 129 million foreign patent data.

Storage, including mass storage media

Storage configuration

Depending on the importance and use of data, KIPOnet's storage configuration is divided into two sections; an internal transaction system section and a search system section. The internal transaction system uses RAID 1 for its integrated database, imaging system and XML data, using 50% of the disk, while forming a business continuous volume that will facilitate quick daily data 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 large-sized images, search database, indexes, and representative drawings.

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

For the database on patents and utility models, please refer to the attached file, below.

[Patent_UtilityModelDB](#) - Patent and Utility Model Database of KIPO

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

In-house systems (online/offline)

Patent and Utility Model Search System

The Patent and Utility Model Search System supports simple and convenient search of full text data collected from the patent gazettes of the EPO, JPO, and the USPTO, including our domestic gazette data. Due to the intelligent automated search functions, our examiners only need to input natural languages to search prior art documents. More detailed functions are as follows:

- An integrated viewer for patents and utility models enables our examiners to confirm a great number of search results that have been collectively stored on their own computer by a personal database client called PMS.
- Meta-search function allows searching of non-patent literature categorized by technology such as thesis, reports, and periodicals. It can also search multiple Internet sites and show the results on the same screen including electronic journals such as IEEE, ScienceDirect, and OSA.
- A matrix for IPC, F-term, USPC, E-CLA enables examiners to simultaneously view relevant applications for a prior art with a maximum of 30 representative drawings.
- When a user inputs a Korean keyword, he/she can get the corresponding English/Japanese results.
- The System enables KIPO examiners to conduct reserved search requests and delivers the results to them through an after-hours batch work system.
- To improve on the search function, a master plan to build a multilingual translation system was drawn and non-patent data related to architectural engineering was included in 2007.

In 2008, toward a future-oriented search environment, an English to Korean translation system was incorporated into the search system and integrated search services on both patent and non-patent literature launched. In addition, for the user's convenience, the performance of the Patent and Utility Model Search System was improved with the upgrade of the search engine and the expansion and refinement of the search data.

Online Work-at-Home System

Since March 2005, a remote online work-at-home examination system has been deployed and is being used by 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 2008 and 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. 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 2008, 79 examiners (approximately 10% of the total number of patent examiners at KIPO) were participating in this system.

External databases

Through the Non-Patent Literature Search System, our examiners efficiently search the databases of STN, Chemical Abstracts and IEEE Abstracts. Every year, the scope of database is extended along with provisions for an integrated user-interface. In addition, access is provided to science literatures, such as Delphion, Westlaw, ScienceDirect, and KP-Journal, JJAP, BCSJ, ACS, OSA, CCD, Science, Nature, Wiley-Interscience, Springer, including domestic journals such as DBPIA and KISS, via the Internet.

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

As at the end of 2008, the KIPOnet had about 39 subsystems, some of which are listed below. Each subsystem plays an important role in managing data produced during the various phases of the IPR administrative processes; such as, dealing with matters that originate in the transfer of data from one phase to another, and streamlining search-related administration.

General Information Management System

The General Information Management System 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 System

The Electronic Approval and Routing System 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 and upgraded in January 2004. The system 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: posting and review
- 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 99.9% of all the documents approved in 2008.

Knowledge Oasis

In 2006, the Knowledge Management System that was launched in 2001, was renamed Knowledge Oasis (KOASIS). The KOASIS does not only represent a change in name, but also represents a significant upgrade to the previous version of the system. The system is dedicated to the efficient management of a variety of knowledge and information created by KIPO staff. It is for assisting them in their work, and enables them to discuss and 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 (ETRI) through an online Q&A communication corner. Some high quality information posted on the KOASIS is available to the public through KIPO's homepage and private search portals like Naver. Since November 2007, it has been linked to the Government's Knowledge Management System for more extended information sharing between government agencies.

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

Hardware

As at the end of 2008, KIPOnet had 48 UNIX Enterprise servers, 64 NT servers, and 17 Linux servers. For higher availability, individual servers are clustered for the e-filing system, internal transaction 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. Since servers based on the clustering structure use the same database when applying the Oracle Parallel System, the accuracy and consistency of data is maintained even when server failures occur. The storage capacity of the servers is 311 terabytes. RAID 0, 1, or 5 is used according to the method of data protection. For security, 44 sets of equipment, such as VPNs and IDSs have been deployed. The peripherals consist of 6 backup devices, 5 jukeboxes and 341 sets of network equipment. The improvements made in terms of hardware performance in 2008 are as follows:

- Increase and adjustment of server resources for the internal transaction system
- Increase and adjustment of sever resources for the search system
- Change of disc configuration for the search system
- Replacement of servers for the e-filing system and the internal transaction system
- Replacement of database servers for the search system

Network

In 2008, two sets of communication devices were configured for search services and 22 old communication devices were replaced with new ones. The communication line and devices were doubled for improved services at the Call Center, targeting applicants and the public. In addition, the KIPOnet system was linked to the email one-stop service system of the Korea Post, as well as to a new outsourcing agency for prior art searches. The placement of KIPO's IT resources and network connections were as follows:

- 45Mbps * 2 lines between the Headquarters and the Seoul Branch office
- 45Mbps * 1 line between the Headquarters and the International Intellectual Property Training Institute (IIPTI)
- 40Mbps * 1 line for the intra-network connection between the Headquarters and the Call Center
- 10Mbps * 1 line for Internet connection between the Headquarters and the Call Center

Software

For databases, performance tests are regularly conducted with support from Oracle's customer support team. In addition, we continuously upgrade the backup tools, middleware, and web servers to improve the KIPOnet system's performance and functionality.

As at the end of 2008, about 177 commercial software applications were in use. The software applications can be grouped into three major groups and are mostly related to database and middleware. The major groups are:

- 164 perpetual licensed software including DBMS and web servers
- 6 subscription licensed software including V3
- 7 packaged software for KOASIS, web mail, messenger, performance management, electronic approval, six sigma, and et

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-Patent Portal System, while other departments support customers according to their duties and responsibilities.

e-Patent Portal System

The e-Patent Portal System was established to transform KIPO's website into an online service for the cyber community. Owing to this service, applicants can file all the various kinds of industrial property applications online and pay the relevant fees by Internet banking. They are informed of the legal status of their applications by e-mail and/or SMS. They can request and receive certificates, download electronic dossiers, such as priority certificates via the Internet and check the progress of their request. In addition, in October 2006, a public service for informing applicants in advance, of when their applications would be examined was launched.

Moreover, individual applicants can check the status of their applications through an HTML-based service titled "How is my application going?" while enterprises, universities, institutes and IP law firms through a SOAP-based web service. This e-Patent Portal System is linked to the WEB-PASS, which is a web-based e-filing system that is being used for receiving all kinds of IPR applications. In 2008, the WEB-PASS service was extended to include intermediate, registration and trial documents.

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 of non-patent literature the Library has. They could also order copies of published patent applications as filed.

Call Center

To integrate scattered counseling resources and promptly provide technical advice, the Call Center was established in March 2002. Its roles can be summarized as follows:

- Counseling: procedural and technical advice on (electronic) filing; examination; registration; trial; search and use of IPR information; and on the evaluation of disputes, such as IPR infringement.
- Customer Relationship Management: customized information based on the record of past phone requests and opinions collected through customer satisfaction surveys for better policies and promotional events.
- Outreach service: informs applicants in advance that their applications would be extinguished and suggests reasonable solutions.
- Others: managing a quick response system that is available on the Internet; dispatching a troubleshooter to help applicants with their e-filing problems, online meetings between an examiner and an applicant through the local IP information center and the Multimedia Center

Security

In terms of security, the digital signature of electronic documents is used based on a public key infrastructure for encryption and decoding. To protect customers' computers from external attack, a lot of security equipment such as IDS, firewall, and VPN have been deployed. Unauthorized access to the main database is prohibited via database security tools. 24-7 Enterprise Security Management has been introduced for security equipments and servers. Also, a key logger security and hacking-diagnostic system is 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. The KIPOnet system 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.

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, and CD-ROM. The documents are obtained through an exchange agreement with 18 countries and 4 international organizations, including the USPTO, WIPO, and EPO.

The library has non-patent literatures (some of which were donated while others were purchased), which comprises of over 31,760 volumes and 536 kinds of periodicals related to science and technology, CD-ROMs of annual reports, and statistics. The collections are arranged in class or numerical order. 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 copies of original electronic materials, such as electronic journals and e-books.

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

Cooperation between Libraries

In 1978, KIPO became a member of the Korea Institute of Science and Technology Information (KISTI). The institute provides interlibrary loan and document delivery services on a variety of IP-related publications.

Since 2002, KIPO examiners have conducted online searches on over 3.45million volumes of thesis, government publications, seminar materials, and books. This is based on an agreement with the National Assembly Library to exchange such information.

National Digital Science Library

KIPO is also a member of the National Digital Science Library, managed by KISTI. The library provides access to the academic thesis and scientific journals of 454 domestic libraries and information centers.

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)

KIPO's Web site

KIPO's website is an information portal for its customers. General information on IP and some individual announcements; such as undelivered notifications due to applicants changing their addresses, notice on patents expiring due to the non-payment of fees, etc. are available at the website. Also available on the website is 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 at 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. Specifically, underprivileged users now have an easier and more comfortable access since they can scale the screen up and down; and the video files are subtitled for the benefit of those who cannot hear but can read. Additional activities to improve the public services for 2008 were done in the aspect of:

- Service contents: supplemented based on feedbacks collected from users through live polls and consultations
- Accessibility of services: implemented web standards to enable access under diverse web browsing environments; introduced I-PIN for privacy protection; modified the homepage and simplified the menus; as well as refined domain and portal sites similar to KIPO. Above all, the domain for online filing services was completely separated from KIPO's homepage. The domain for online filing services is now <http://www.kiporo.go.kr>.

Korea Industrial Property Rights Information Service

Since January 2001, domestic IPR information has been offered (including KPAs) for 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 2008, the number of search hits by visitors was over 18.6 million while the number of visits was 15.9 million. Additional achievements are as follows:

- Started the English to Korean (E2K) and Korean to English (K2E) translation service
- Began a free trial service for E2K and Japanese to Korean machine translations
- Implemented a function for enabling searches on Japanese full texts using search strings in Korean language
- Enabled the downloading of search results at one time
- Established a Chinese patents and patent family database
- Offered legal status information through WIPO's PatentScope
- Provided major judicial precedents of the Patent Court and the Supreme Court
- Improved the English website to observe relevant web standards

IP Mart

In April 2000, the Internet Patent Mart (<http://www.patentmart.or.kr>), 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. The mart provides a variety of IP information to individual inventors and SMEs on promoting innovation.

In 2008, the IP-Mart database grew to 41,628 technologies with 31,796 users, while 72 technology transfers were made.

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

<http://www.kiporo.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=m07_01_11_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.kipo.go.kr/kpo/user.tdf?a=user.html.HtmlApp&c=4012&catmenu=m02_01_01

<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 2008, 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 the Trilateral Offices (i.e., EPO, JPO, and USPTO). These data are loaded into our search system for our examiners' reference. The IT experts meeting with the other IPOs such as the JPO, EPO, and SIPO on the use and dissemination of patent information as well as on the electronic exchange of search databases including priority documents, is ongoing.

Dissemination of Korean patent information by K-PION

Since Korean patent documents were incorporated into the PCT minimum documentation, the importance of referring to Korean patent documents when other IPOs perform examinations has increased. Therefore, to help examiners of foreign IP offices with their examination, KIPO launched a Korean to English 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 through a Korean-English translation engine customized for patent documents. It has approximately three million sentence patterns and technical terms. It enables IPO examiners who are not familiar with the Korean language to easily understand Korean patent documents. It is available to them for free, 24/7 via the Internet through the translation of file wrapper information and a keyword search service on KPAs in English. Further, the service has been linked to the in-house system of the EPO. Since December 8, 2008, Korean gazettes on patents and utility models have been available for English keyword searches by foreign examiners.

Trilateral Document Access Services

In collaboration with the JPO, the TDA-FWA (File Wrapper Access) system was launched for sharing examination results online with the JPO. This was done in April 2007 and under a project called the Korea-Japan Patent Prosecution Highway. It was linked to our internal system in July of the same year. And in April 2008, it was extended to the USPTO in order to reduce examination pendency period and to increase the quality of examinations conducted at the IPOs; ultimately strengthening the international protection of the industries and technologies of each country.

Medium used for exchange of priority documents

The electronic exchange of priority documents with the JPO started on CD-ROM in July 2001. In August 2002, the exchange channel was changed to the TriNet and in April 2008, it was changed to the Trilateral Document Access (TDA) method. The TDA method fully automates the priority document exchange process and has been extended to both the USPTO (in October 2008) and the EPO (in December 2008). In 2008, 12,950 priority documents were exchanged with the JPO, 1576 with the USPTO and 3167 with the EPO.

KIPO has also been electronically exchanging priority documents with WIPO since September 2004 and extended the electronic exchange of documents to 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. Specifications, drawings, and bibliographical data submitted to KIPO on floppy disks are uploaded to the KIPOnet system. After implementing the online filing system in January 1999, KIPO was able to cut its operating expenses and began providing various online services, including information referral and requests for certificates. In 2008, the e-filing rate for patent applications rose to an average of 97.4% amounting to 166,223 applications, while for utility model applications, it got up to 85.7% amounting to 14,909 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

Cyber International Patent Academy

The Cyber International Patent Academy was opened in May 2002. It offers general training programs to a diverse group of people interested in IPRs and inventions. Trainees range from elementary school students to senior citizens. During the courses, experts from industry, law, administration, and education give presentations on relevant IP information, including basic knowledge of IPRs. As at 2008, it had managed 140 contents and hosted approximately 277,375 users. Specifically, the Academy has supported 63 universities in providing online education on IP and professional tutoring programs to their students.

International Intellectual Property Training Institute

In 1987, the International Intellectual Property Training Institute (IIPTI) was established in Seoul as an organization affiliated with KIPO. It initially offered 11 IPR training courses and then moved in February 1991, to the Daedeok Science Valley in Daejeon with the support of WIPO and the United Nations Development Programme.

The courses for government officials are given in English and it is based on their level / grade. The courses include courses such as the WWA DL-101 Course, courses on controversial issues in IP as well as other relevant courses. Whereas, for the private sector, the courses are focused on both expanding the nation's IP base and for raising awareness of IP. The courses target patent attorneys, R&D researchers and IP staff of enterprises. In addition, these courses will contribute to cultivating IP experts in the industry and help to secure more customized programs and practical exercises.

As at 2008, out of a total of 91 courses, the IIPTI offered seven courses to foreign trainees. Notably, customized courses were offered to the officials and examiners of the Vietnamese government on the special request of their government. The IIPTI also provided consultations on the establishment of an IP education center in Indonesia in cooperation with WIPO.

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

KIPO-WIPO Technical Cooperation for Developing IPOs

In May 2005 and in conjunction with WIPO, KIPO developed the PCT Receiving Office Administration software, so-called PCT-ROAD, using the Korea Funds-in-Trust at WIPO. The PCT-ROAD supplemented the function of the PCT-EDI (Electronic Data Interchange) to enable the online exchange of PCT-related documents in 2007 and as at the end of 2008; it had been distributed to 24 countries, including Malaysia, Indonesia, South Africa, and Mexico.

A digital IPR educational program called IP Panorama was developed in collaboration with the Korea Invention Promotion Association and WIPO using animations to facilitate the learning of IPR concepts in ten fields including patent information, technology trade, M&As, e-commerce, and patent disputes. The program is useful for IP education and training, as well as for the development of human resources. In 2008, two additional contents (i.e., on IP Valuation and Trademark Licensing) were developed and the IP Panorama is scheduled to be available in other languages.

In conjunction with the SMEs Division of WIPO, e-learning IPR courses have been managed in order to help the SMEs of developing countries to create their own IP. These courses have also been made available to our domestic companies and universities. Furthermore, to raise the IP awareness of our domestic college students, in collaboration with the WIPO Worldwide Academy (WWA), courses such as the DL-101 (that covers the main areas of IPR in English language) and the KL 101 (that covers science technologies including IP in Korean language) are being offered to students of domestic universities that are affiliated with KIPO. Students, who take these courses, are issued with WIPO WWA and KIPO joint certificates.

Joint Cooperation with APEC

In 2006 and 2007, with 260,000 USD worth of support from APEC, an IP e-learning program called IP Xpedite was developed. This program has been distributed to APEC member economies to assist in enhancing their ability to use IPR information as well as their public awareness of IPR protection. This program is available at APEC's website.

The material covers best practices on IP usage from the EPO, JPO, USPTO, and WIPO. It is composed of 14 modules: eight of the modules, which were created in 2006, pertain to the use of patent information; the other six modules, which were developed in 2007, are concerned with the preparation and interpretation of the patent documents required in major IP countries.

In 2008, the 'APEC Project for Training IPR Information Facilitators using e-learning contents, IP Xpedite' was approved by the APEC Concluding Senior Officials Meeting. The project aims to enhance the utilization of information on IPRs within the APEC region by offering the facilitators of IPR information appropriate training and education on up-to-date IPR information and the IPR systems of member economies. Further, it aims to help APEC member economies improve their efficiency in establishing government policies on science and technology. It will begin in 2009 with 270,000 USD support from APEC and KIPO.

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

2008 PATINEX

To exchange information and explore more efficient strategies and tools in the utilization of IP information, an annual IP conference titled PATINEX (PATent Information EXpo) has been held by KIPO since 2005. The conference provides participants with up-to-date information on the patent strategies of advanced enterprises, solutions and tools for using and analyzing patent information. In addition, it brings together IP professionals and businesses from IPOs around the world, and creates an opportunity for a diverse set of IP service providers to exhibit the relevant software products and services that they have developed.

The main theme of the fourth expo, which was held in November 2008, was on the IP information strategies for exploring overseas markets, standard strategies for patents, search strategies of core patents, as well as the status of the use of patent information by enterprises and R&D institutes. At the exhibition, a total of 25 IP information service providers and institutions presented IP information products and gave a demonstration on their IP solution packages.

Activities for Disseminating the Use of IPR Information

To consult on matters and difficulties that researchers face in conducting R&D projects, an IPR Help-desk online has been made available at <http://www.ipr-guide.org> since September 2005. And the use of an R&D note by researchers (which we started promoting in 2006) is being continually encouraged to improve the capacity of researchers to develop successful patent strategies and yield good R&D results.

As at 2008, nine courses were offered online and consulting services were provided to 50 R&D institutions to raise their capability of using IPR information, through visits to their locations to analyze their current IPR status and strategies and then give coaching sessions on how they can improve by strategically using patent information.

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 the Patent Trends of Korea is being periodically published. In 2008, it reported the results of analyzing the trend of approximately 1.57 million patent applications filed from 1983 to 2007 and 680,000 patents granted from 1948 to 2007 in Korea.

The data was analyzed in terms of type of applicants (domestic or foreign), technology, academic field, region and company. The performance and efficiency of R&D bodies was observed to depend on their amount of investment and the number of university researchers, public R&D institutes, and private companies involved.

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_03_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_04_04
<http://www.kipo.go.kr/en/>

contain patent-related news regarding the Office

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.