

FNCA Newsletter

Forum for Nuclear Cooperation in Asia

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Republic of Korea

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The Third Meeting of the Forum for Nuclear Cooperation in Asia(FNCA) - Atoms for the Next Generation -



The Third Meeting of the Forum for Nuclear Cooperation in Asia (FNCA) was held in Seoul, Korea on 30-31 October 2002. The Meeting was co-hosted by the Ministry of Science and Technology, Republic of Korea and the Atomic Energy Commission of Japan.

Ministers and senior officials responsible for peaceful nuclear research, development and utilization from nine Asian countries comprising Australia, People's Republic of China, Republic of Indonesia, Japan, Republic of Korea, Malaysia, Republic of the Philippines, the Kingdom of Thailand, and Socialist Republic of Vietnam

participated. They also welcomed the participation of representatives of the International Atomic Energy Agency (IAEA) as an observer.

Acknowledging that the FNCA has made a great contribution toward the promotion of the safe and peaceful uses of nuclear energy, all delegates reiterated the importance of cooperation among the FNCA Countries for the benefits of a better life in a more comfortable environment.

The fourth meeting is scheduled in Autumn 2003 in Japan.

The Third Senior Officials Meeting (SOM) of the FNCA

The Third Senior Officials Meeting of the FNCA was held on 30 October 2002, in preparation for the Ministerial Level Meeting (MM) to be held next day. The report on the conclusion of the Third FNCA Coordinators Meeting (CM) and on the progress of FNCA activities since the Second SOM, was introduced for discussion by Dr. Suetō Machi, the FNCA Coordinator of Japan. Another topic, "Management and Operation of FNCA" was discussed, in which the proposal that the project on "Sustainable Development and Nuclear Energy in Asia", recommended by the Third CM be forwarded to the Third MM, was endorsed by the Third SOM. The anticipated elements of the statements from the Ministerial Level Representative of each country were briefly introduced for two topics: "Strategy for Human Resources Development" and "Sustainable Development and Nuclear Energy." Comments on the current situation for some countries were also made in the Third SOM.

Opening Ceremony

The Third FNCA MM commenced with the Welcoming Address by Dr. Young Bok Chae, Minister of Science and Technology of Korea. He emphasized the importance of active cooperation in the Asian region where nuclear energy has been increasingly used for power and non-power applications. He commended the FNCA for its "great contribution to the promotion of the peaceful and safe utilization of nuclear energy through active implementation of various projects." He also expressed his trust in the role of the FNCA as the forum to strengthen the regional partnership in the peaceful and safe utilization of nuclear technology. Mr. Hiroyuki Hosoda, Minister of State for Science and Technology Policy of Japan, also expressed the same view on the role of the FNCA in the Congratulatory Remarks. He expressed Japan's appreciation of the Ministry of Science and Technology, Republic of Korea as their co-host of the Meeting. He reiterated the significance of the FNCA's role, noting the necessity of nuclear energy for sustainable development and the increasing importance of the partnerships in the Asian region. Following the Congratulatory Remarks, Professor Yoichi Fuji-ie, Chairman of the Atomic Energy Commission (AEC) of Japan, made the opening address declaring the Meeting open. He introduced the topics to be discussed in the Meeting and expressed his hope and trust that the Meeting will "contribute to the on-going promotion of peaceful nuclear development in the Asian region."

Program of the 3rd FNCA

Date : October 30-31, 2002

Place : ASEM Hall, COEX, Seoul

Sponsored by : Ministry of Science & Technology of Korea

Atomic Energy Commission, Cabinet Office of Japan

Wednesday, October 30

Senior Officials Meeting (SOM)

- 10:00-10:15 Opening
- 10:15-11:15 Report on Third FNCA Coordinators Meeting (CM) and Progress of FNCA Activities
- 11:15-12:15 Management and Operation of FNCA Activities
- 13:45-16:00 Preliminary Talks on Round Table Discussion of MM
- 16:30-17:00 Closing

Thursday, October 31

Ministerial Level Meeting (MM)

- 09:30-09:50 Opening Session
- 10:00-12:00 Session 1 : Country Report
- 13:30-13:45 Presentation: "Improving Human Welfare through Partnership and Integrated Technologies".
- 13:45-15:15 Session 2: Round Table Discussion
- Topic 1: Strategy of Human Resources Development
- 15:30-17:00 Session 2 (Cont.)
- Topic 2: Sustainable Development and Nuclear Energy
- 17:15-17:30 Closing Session



Welcoming Address by
Dr. Young Bok Chae



Congratulatory Remarks by
Mr. Hiroyuki Hosoda



Opening Address by
Professor Yoichi Fuji-ie

Current Status and Policy on Nuclear Development in the FNCA Countries : Summary of Country Reports



Australia

Professor Helen Garnett

Executive Director
*Australian Nuclear Science and
 Technology Organization (ANSTO)*

Recent domestic reports in Australia can be made on the Replacement Research Reactor (RRR) project of the Australian Nuclear Science and Technology Organization (ANSTO), and the radioactive waste management of the Australian government. The RRR project, including the license application evaluation process and geo-technical inspections, has been successfully carried out by the ANSTO under the interaction with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), or a regulatory agency totally separate from the ANSTO. A site selection process for a national low-level radioactive waste repository has been carried out in several phases by the Australian government. Now the Australian government is seeking a place for a national store of long-lived intermediate level waste on Commonwealth land. Australia does not generate any high level waste. The Australian government has no intention of accepting radioactive waste from other countries for storage or disposal in Australia.

Australia has been playing an active role in the FNCA. Its recent contributions to the FNCA activities are found in the Nuclear Safety Culture Workshop for 2002 to be held in Australia in January 2003, the FNCA Radioactive Waste Workshop to be held in Daejeon, Korea in November 2002, and the Neutron Scattering Sub-workshop held in Beijing, China, in late 2001.



China

H.E. Mr. Zhang Huazhu

Chairman
China Atomic Energy Authority

China achieved steady and successful development this year in the field of nuclear power, with two NPP units in commercial operation, one NPP unit in the final stage of commissioning, and the other four units under construction to be put into operation by 2005. By that time, China's nuclear power capacity will reach 9,000 MW, supplying 3% of China's total power generation. China also achieved considerable progress in the fields

of nuclear fuel industry and nuclear technology applications to industry, agriculture, medicine, environmental protection and security, enhancing the people's welfare.

Under the principle of "moderate development of nuclear power" identified in China's Tenth Five-Year Plan for National Economy and Social Development, China has had planning and feasibility studies on nuclear power projects under way, and is now in the second stage of thermo reactors of the "three-step-development."

The general consensus reached among the participants in the Thirteenth Pacific Basin Nuclear Conference held in Shenzhen, China the previous week that nuclear energy and technology play an increasingly important role in the sustainable development of the national economy in the 21st century, represents China's recognition of nuclear energy as a safe, economical and clean energy, thus the primary solution to the world's sustainable development. Supporting the inclusion of nuclear power in the CDM, China is willing to cooperate with the FNCA countries in promoting the peaceful utilization of nuclear energy in this region.



Indonesia

Dr. Soedyartomo Soentono

Chairman
National Nuclear Energy Agency (BATAN)

Nuclear science and technology plays an imperative role in setting the "Landmarks 2020," enabling the achievement of supply security of food and energy. Under a more solid coordination program among research and development institutes such as the National Nuclear Energy Agency (BATAN) and Nuclear Regulatory Control Board (BAPETEN), as well as with the industries and NGO's, BATAN carried out R&D in agriculture joining the FNCA activities.

Indonesia proposes "cooperation under the auspices of the FNCA to install a network system with training centers and advanced nuclear facilities in our region" in order for BATAN and BAPETEN to meet the quality and quantity needs of human resources. Cooperation with the FNCA countries in the field of accelerators is also welcomed. Studies relating to the utilization of NPP's are pursued in collaboration with the IAEA and Korea, enabling the introduction of an NPP to optimize the energy mix for Java Bali in 2015.



Japan

Professor Yoichi Fuji-ie

Chairman
Atomic Energy Commission

Japan's "Long-Term Program for Research, Development, and Utilization of Nuclear Energy" identifies nuclear power generation as the nation's key energy source to be utilized to the maximum extent. In line with the Long-Term Program, Japan ratified the Kyoto Protocol last June, which increases nuclear power generation to reduce GHG emission. The recent event is the integration of the Japan Atomic Energy Research Institute (JAERI) and the Japan Nuclear Cycle Development Institute (JNC), which has been under way since December 2001.

As to the advanced nuclear science and engineering, Japan submitted Rokkasho-mura as a candidate site for the International Thermonuclear Experimental Reactor (ITER) project with the EU and Russia. Japan has also used nuclear energy and radiation for various applications including research on hydrogen production, life sciences and material sciences. Advanced R&D is going on in the areas of nuclear fusion, particle accelerators, innovative reactors, and basic and fundamental research.

Japan has cooperated with FNCA countries not only in R&D, but also in education and training on management and protection of radioactive materials.



Korea

Dr. Chung-Won Cho

Director General for Atomic Energy Bureau
Ministry of Science and Technology

Korea has committed to the utilization of nuclear energy as a major energy resource. Its current policy emphasizes the future nuclear reactor technology development and balanced coordination of power and non-power applications. Korea has also carried out a 10-year national R&D Program since 1997.

As to nuclear reactors, Korea has achieved the localization of the Korean Standard Nuclear Power Plant (KSNP), and is developing the improved version of the KSNP, advanced power reactor (APR) technology, APR1400 to be commissioned in 2010. Currently, Korea has 17 NPP units in operation, supplying 40% of the national total electricity, 3 KSNP's are under construction, and 8 more units will be built by 2015.

To accelerate the Radiation Technology (RT) development, the Korean government has drafted the "Act on the Utilization of Radiation and Radioisotopes"

for its review and approval of National Assembly.

Furthermore, Korea's efforts to place its top priority on the safety issue are reflected in the "Severe Accident Policy," "Periodic Safety Review," and "the Nuclear Safety Charter."

As for the liability system, Korea proposed to establish "Asian Mutual Fund for Nuclear Liability", which replaces current insurance payment.



Malaysia

Dato' Seri Law Hieng Ding

Minister
Ministry of Science, Technology and the Environment

Malaysia is grateful to the FNCA for supporting the "International Nuclear Conference 2002" with the participation of several speakers and participants from FNCA countries.

In Malaysia, nuclear science and technology, including radiation-processing technology, has been increasingly used in the medical, agricultural, biotechnological, and industrial sectors. It has enabled the provision of better healthcare services, the promotion of food production, and the improvement of the efficiency of industrial plants.

Despite its recognition of the contribution of nuclear energy to reduction of GHG emission, Malaysia has no plan to use nuclear power generation, thanks to abundant natural energy resources. The current energy policy of Malaysia is to utilize indigenous energy resources which are gas, coal, hydro, oil and biomass.



The Philippines

Dr. Estrella F. Alabastro

Secretary
Department of Science and Technology

The Philippine government recognized the importance of sustainable development in "The Philippine Agenda 21 (or PA 21)" within the frame of which nuclear science and technology ensures economic growth. The achievements of the Philippines with the help of the FNCA are as follows:

1. Mutation Breeding: multilateral research project on the "Drought Tolerance in Soybean" Workshop on Mutation Breeding to be hosted in 2003.
2. Utilization of Research Reactors: collaborative project on the characterization and analysis of carrageenan and carrageenan blends irradiated with gamma rays.
3. Utilization of Radioisotopes and Radiation for

- Medical Use: clinical study on radiation therapy for locally advanced uterine cervical cancer.
4. Radioactive Waste Management : implementation of a Philippine Action for the safety of sealed radiation sources
 5. Nuclear Safety Culture: the 2003 Workshop on Nuclear Safety Culture to be hosted.
 6. Public Information on Nuclear Energy: special efforts being made to target the young generation.
 7. Human Resources Development: the Fourth Workshop on HRD, National strategy for HRD in the nuclear field.



Thailand

Mr. Sunthad Somchevita
 Permanent Secretary
 Ministry of Science and Technology

Thailand's major policy on atomic energy applications is peaceful use of atomic energy. The Office of Atomic Energy for Peace (OAEP) ensures that "Thailand adheres to the NPT regime and properly establishes a national infrastructure for safe and peaceful application of nuclear technology."

Thailand reorganized OAEP and revised the basic atomic energy law in view of issuing the independent regulatory authority, accelerated by the radiological accident in 2000: OAEP is separated into the Office of Atoms for Peace (OAP) and the Thailand Institute on Nuclear Technology (TINT) under the MOST; the old Ministerial Regulation (safety regulation) was drafted to incorporate the issues the accident has addressed, and is to be promulgated by the end of 2002.

As to national infrastructure development, the present Atomic Energy for Peace Act is to be revised to incorporate internationally accepted standards and measures for strengthening the role of the OAP. As to R&D and the utilization of nuclear technology, the TINT is required to support export of agricultural products through irradiation and development of Small and Medium Enterprises (SMEs). Other strategy developments are also being carried out in other institutes and laboratories.



Vietnam

H.E. Mr. Hoang Van Huay
 Deputy Minister of Science and
 Technology

Under consistent Vietnam policy on peaceful

utilization of nuclear energy, Vietnam plans to strengthen the R&D, and to utilize nuclear energy for national socio-economic development. A draft "National Nuclear Policy and Long-Term Program for Research, Development and Utilization of Atomic Energy" is under formulation and compilation.

Recognizing the importance of public information to promote the utilization of nuclear energy, Vietnam hosted a Vietnam-IAEA Workshop "Regional Public Information on the Nuclear Energy and Sustainable Development," which helped the public gain a positive view on nuclear power development in Vietnam.

The Vietnamese government established a National Steering Committee for Nuclear Power Development to provide guidance for the implementation of the R&D activities on nuclear power. The two main duties being conducted for submission to the government by the end of 2003 are to prepare a report on Pre-FS on the first NPP's construction, and to study and elucidate seven aspects in relation to the nuclear power development in Vietnam.

Vietnam is willing to cooperate with the FNCA activities, as shown in its plans to host FNCA events in 2003, and the Fifth Ministerial Level Meeting of the FNCA in 2004.



IAEA

Mr. M. N. Razley
 Section Head, East Asia and the Pacific
 Section
 Department of Technical Cooperation
 International Atomic Energy Agency

The recent World Summit on Sustainable Development (WSSD) in Johannesburg produced the Ministers' agreement that the strategy for alleviation of poverty is based on improvements in 5 WEHAB goals (Water, Energy, Health, Agriculture and Biodiversity).

Applied technology helped to achieve progress in WEHAB-type goals. IAEA plays a role in improving access to clean drinking water, food security, health and environmental protection, and bring benefits to the region's poor.

The successes of the applied technology were made possible through partnerships between governments, research institutions and international agencies, integration of a range of technologies to solve specific development problems, and the ability of the IAEA to foster partnerships and assist with technology integration.

Roundtable Discussion

The FNCA Ministerial Level Representatives participated in the roundtable discussion on two topics: "Strategy for Human Resources Development (HRD)" and "Sustainable Development and Nuclear Energy."

The first roundtable discussion topic, "Strategy for HRD", was introduced by the lead-off speaker, Dr. Kyong Won Han, Head of the Nuclear Training Center at Korea Atomic Energy Research Institute. He presented the current situation in the field of HRD in nuclear science and technology, and emphasized nuclear knowledge preservation, gaining the other delegates' consensus. The participating countries agreed to put an emphasis on these five issues:

- * Promotion of an exchange of information on Human Resources Development strategies in connection with nuclear knowledge management,
- * Development of programs for attracting the younger generation to nuclear science and technology,
- * Harmonization of different interests in technical areas,
- * Formulation of an Asian network of higher

education and training in nuclear technology for the preparation of the establishment of the International Nuclear University in the future,

- * Cooperation and interaction with other regions for Human Resources Development.

The second roundtable discussion topic, "Sustainable Development and Nuclear Energy", was introduced by the lead-off speaker, Mr. Tetsuya Endo, Vice-Chairman of the Atomic Energy Commission, Japan. He presented an assessment on the utilization of nuclear energy both to power and non-power applications as its contribution to the sustainable development in the modern society. He further added that the proper use of nuclear energy can realize the achievement of the 3E's: 'Energy security', 'Environmental protection' and 'Economic growth'. His opinion gained positive responses from many delegates. Delegates recognized again the close relationship between energy supply and sustainable development. Many delegates expressed the view that nuclear energy would be one of the most important energy sources in the present and beyond. The relationship between the Clean Development Mechanism (CDM) and nuclear energy was discussed, and it was acknowledged that further studies including the proposed project could provide a firm platform for future considerations.

Chairperson's Summary of the Third Meeting of the Forum for Nuclear Cooperation in Asia

1

The Third Meeting of the Forum for Nuclear Cooperation in Asia (FNCA) was held in Seoul, Korea in the 30th-31st of October 2002 under the basic theme 'Atoms for the Next Generation'. Ministers and Senior Officials responsible for the peaceful nuclear research, development and utilization from nine Asian countries - Australia, the People's Republic of China, Indonesia, Japan, the Republic of Korea, Malaysia, the Philippines, Thailand and Viet Nam - participated in the meeting. Observers from the International Atomic Energy Agency (IAEA) and a regional organization also participated. The Third FNCA Ministerial Level Meeting began with the Welcoming Address by Dr. Young Bok Chae, Minister of Science and Technology, Korea, followed by the Congratulatory Address by Mr. Hiroyuki Hosoda,

Minister of State for Science and Technology Policy, Japan, and the Opening Address by Professor Yoichi Fuji-ie, Chairman, Atomic Energy Commission of Japan. The Chairperson, Dr. Chang-Kun Lee, Commissioner, Atomic Energy Commission of Korea, reiterated the basic spirit of the FNCA by revisiting the FNCA Vision Statement and Goals.

2

Mr. Soichi Nagamatsu, Deputy Director General for Science and Technology Policy of Cabinet Office of Japan reported the summary of the Senior Officials Meeting (SOM) that was held the previous day. The summary report indicated the progresses of on-going FNCA cooperative projects, and also highlighted three new projects, i.e., 'Application of

Electron Beam Accelerator,' 'Tc-99m Generator Production' and 'Bio-Fertilizer.' These three new projects were basically approved at the SOM in Tokyo in 2001, and have already been initiated since 2002. Another new project on 'Sustainable Development and Nuclear Energy in Asia' was reported for final endorsement at the Third FNCA MM. As for the new project on the 'Asian Institute of Nuclear Science and Technology (AINST)', it was agreed that this proposal should be reexamined in the light of discussions at the roundtable-meeting on Human Resource Development summarized under point 5 below with particular consideration on the IAEA's planned initiation of the International Nuclear University (INU). The proposed project on 'Marine Environmental Pollution Research' was endorsed but subject to revision not to duplicate RCA activities. With this report, the SOM Summary Report was duly adopted at the MM.

3

Each FNCA Country presented its respective country report at Session 1 in the morning of the 31st of October 2002. The Session was co-chaired by the Minister of Science and Technology of Korea and the Chairman of Atomic Energy Commission of Japan. The reports covered various endeavors of peaceful nuclear programs in each country including the latest progress of nuclear research and development, together with recent policy developments. After reviewing FNCA activities in the previous years, the participating countries expressed appreciation for the tangible progress of activities, and paid attention to the future cooperation within the FNCA framework. In the country reports, various issues were covered. Subsequent questions, answers and comments covered the following topics:

- * The vision of the FNCA that nuclear energy should be used strictly for peaceful purposes in the framework of NPT, and the forthcoming meeting in Japan on the universalization of the Additional Protocol for Safeguards,
- * Concern regarding the news on North Korean nuclear weapons program and the strong hope that the matter should be resolved peacefully and as early as possible,
- * An Asian Mutual Fund for nuclear liability,
- * Nuclear knowledge preservation particularly for the young generation, and other matters of concern.

At the meeting, all delegates reiterated the importance of cooperation among the FNCA Countries following the FNCA's goals set by the member countries for the benefits of a better life in a more comfortable

environment.

4

In the afternoon session, a representative from IAEA (Mr. M.N. Razley, Section Head, East Asia and the Pacific Section, Department of Technical Cooperation) who participated in this meeting as an observer, delivered a presentation on 'Improving Human Welfare through Partnership and Integrated Technologies.' Mr. Razley introduced some of the IAEA's efforts to benefit the FNCA countries, particularly to the Asia-Pacific Region that the nuclear techniques could provide.

5

At the Round Table Discussion, the FNCA Countries expressed their views and made comments on two topics, namely: 'Strategy for Human Resources Development (HRD)', and 'Sustainable Development and Nuclear Energy.' The first roundtable discussion topic entitled 'Strategy for HRD' was introduced by Mr. K. W. Han (Head of the Nuclear Training Center at Korea Atomic Energy Research Institute). The leadoff speaker emphasized the necessity for nuclear knowledge preservation as a preparatory measure for inducing the second nuclear Renaissance. This view gained other delegates' consensus along with the additional comments that continuous effort should be made to develop human resources in keeping abreast with today's needs and modus operandi. In particular, the following issues were considered important:

- * Promotion of the exchange of information on human resources development strategies in connection with nuclear knowledge management,
- * Development of programs for attracting the young generation to nuclear science and technology,
- * Harmonization of different interests in technical areas,
- * Formulation of an Asian network of higher education and training in nuclear technology for the preparation of the establishment of the International Nuclear University in the future,
- * Cooperation and interaction with other regions for human resources development.

In addition, it was suggested that a survey on available human resources with a clearly targeted direction and the future resource need be carried out in FNCA countries, which will provide valuable data for the development of HRD strategy. After further discussion, it was agreed that a high level task group be formed to further scope the potential activities under this topic.

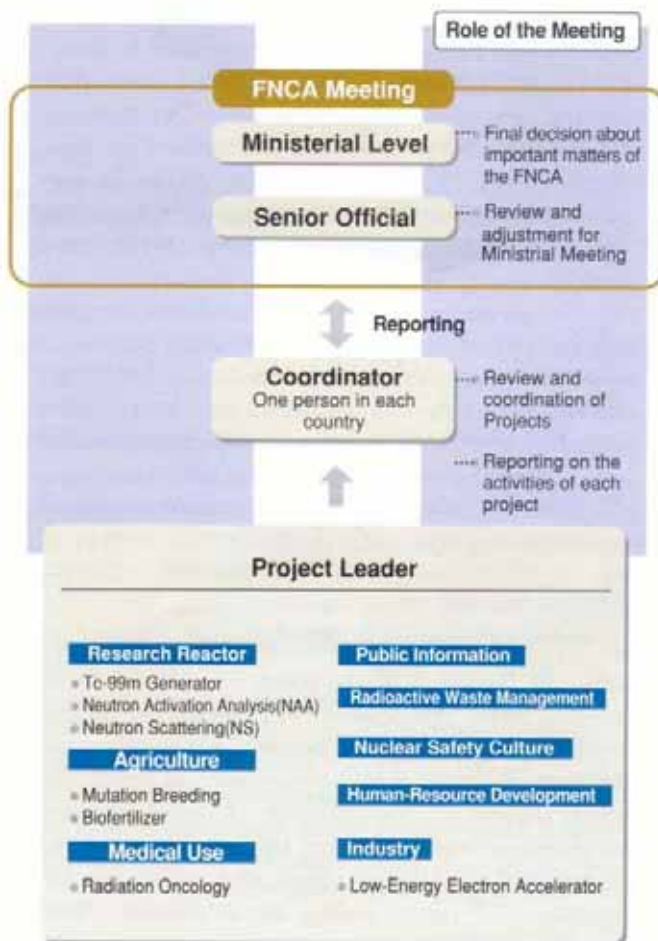
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Another topic 'Sustainable Development and Nuclear Energy' was introduced for the roundtable discussion by Japan (Mr. T. Endo, Vice-Chairman, Atomic Energy Commission of Japan). He presented an assessment on the utilization of nuclear energy both to power and non-power applications as its contribution to the sustainable development in the modern society. He further added that the proper use of nuclear energy can realize the achievement of the 3E's: 'Energy security', 'Environmental protection' and 'Economic growth'. Many delegates shared the same view with these points that Mr. T. Endo made. Delegates recognized again the close relationship between energy supply and sustainable development. Many delegates expressed the view that nuclear energy would be one of the most important energy sources in the present and beyond. The relationship between the Clean Development Mechanism (CDM) and nuclear energy was discussed, and it was acknowledged that further studies including the proposed project could provide a firm platform for future considerations.

7

The fourth FNCA meeting is scheduled in Autumn 2003 in Japan.

The FNCA Framework



Ministry of Science & Technology

Government Complex-Gwacheon, Gwacheon City, Gyeonggi-Do 427-715, Republic of Korea

Tel. +82-2-2110-3675 Fax. +82-2-504-6152