International Knowledge Centre
for Engineering Sciences and Technology
under the Auspices of UNESCO
联合国教科文组织国际工程科技知识中心

Newsletter

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International Knowledge Centre for Engineering Sciences
and Technology under the Auspices of UNESCO

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联合国教科文组织国际工程科技知识中心

The International Knowledge Centre for Engineering Sciences and Technology (shortened as "IKCEST") is a category 2 centre under the auspices of the United Nations Educational, Scientific and Cultural Organization (shortened as "UNESCO"). IKCEST was established on June 2, 2014. The Chinese Academy of Engineering is responsible for the operation and management of the IKCEST.

Under the auspices of UNESCO, IKCEST is a comprehensive and international knowledge centre devoted to the engineering sciences, technology and applied technology. IKCEST aims at connecting engineering sciences and technology institutions globally, assembling various digital resources relating to engineering sciences and technology, building up a public data service platform and corresponding service environment, and coordinating the building of various professional knowledge systems, thus providing knowledge-based services at a global scale in the form of consultancies, scientific research and education for policy-makers and engineering science and technology professionals in the world, with particular reference to the developing countries.

The specific tasks and functions of IKCEST are as follows: to establish an international engineering and technology resources hub; to establish a public data service platform, and to develop the technology for mining and analyzing knowledge from big data; to cooperatively build professional knowledge service systems, and to build capacity in developing countries; to foster interdisciplinary engineering talents with big data processing ability; and to assist UNESCO to fulfill its aims and support its action plans.

CONTENTS

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IKCEST News

CKCEST News

Top News for Big Data Era

Terms on Big Data

IKCEST News

IKCEST conducted survey and study of Silk Road Science and Technology Knowledge Service System sub-project

The Secretariat of the International Knowledge Centre for Engineering Sciences and Technology (shortened as "IKCEST") conducted survey and study at Xi'an Jiaotong University on July 4, 2016. Zheng Qinghua, Vice-President of Xi'an Jiaotong University made a presentation on the sub-project of the Silk Road Science and Technology Knowledge Service System. Song Dexiong, Executive Deputy Director of IKCEST, Liu Chang and Ma Yingchen from the IKCEST Secretariat, and Liu Wei and Shen Ying, experts from the Platform Development Team of IKCEST, heard the report. Heads of various concerned functional departments of Xi'an Jiaotong University also attended the meeting, including Xu Zhongfeng, Director of the Office of Teaching Affairs, Hui Shi'en, Dean of the School of Continuing Education, Li Xiubing, Deputy Dean of the Graduate School and Head of the Postgraduate Work Department, Song Yuxia, Executive Deputy Dean of the School of International Education, Chao Qiuling, Deputy Director of the Department of International Exchanges, Suo Zhihai, Director of the Data and Information Center, Gong Wending, Deputy Director of the Department of Social Education Administration, Chen Ling, Deputy Dean of the School of Continuing Education and relevant staff. At the meeting, the two sides held in-depth discussions on project implementation.

In his report, Vice-President Zheng Qinghua detailed the project history, progress in Silk Road technology platform construction, feature resources construction for countries along the Belt and Road, training for internationalized talents, and work arrangements for the next stage. The Data and Information Center of Xi'an Jiaotong University is the lead unit in the implementation of the Silk Road Science and Technology Knowledge Service System sub-project, with participation from the Office of Teaching Affairs, the Graduate School, the International Affairs Department, the Department of Social Education Administration, the Library, the School of Telecommunications, the School of Continuing Education, the School of Online Education, the School of International Education of the University. So far, 6 core functional modules, including knowledge hotspot focusing and unified knowledge discovery, have been completed. An online learning platform, user management and behavioral analysis and other personalized service modules, and 3 major feature resources databases: Silk Road environmental database, policies and regulations database and video resources database, have all been established. More than 140,000 journal articles, e-books and various reports have been integrated. The Training Program for Silk Road Engineering Science and Technology

Development concurrently implemented with the sub-project is a joint effort with IKCEST within the task framework of the Silk Road Science and Technology Knowledge Service System sub-project, aiming to establish a Belt and Road talent training brand.

Subsequently, staff of the Data and Information Center demonstrated the portal construction and service condition of the Silk Road Science and Technology Knowledge Service System.

The two sides also held in-depth discussions on several aspects between the general platform and the sub-center platform, including design relationship, resources sharing, technical plan and training, which will provide powerful support for IKCEST's general platform construction plan.

Executive Deputy Director Song Dexiong made specific instructions for project implementation. He remarked that great attention from university leaders, high university inputs and fast team action are 3 main features of task implementations of the Silk Road Science and Technology Knowledge Service System sub-project. Xi'an Jiaotong University has attached great importance to the sub-project and pushed it forward as an important effort to showcase China's soft power to the world. This will promise an efficient, quality and high-level completion of the sub-center construction tasks. Executive Deputy Director Song Dexiong put forward 4 requirements for project implementation and hoped that the implementation units conduct further surveys on users' demand, strengthen construction planning for feature resources, consolidate training arrangements and enhance technical support. He planned key work at the next stage: 1. discuss as soon as possible mechanisms and plans for the construction of training base; and 2. think about and map out the task arrangement for the general center and the sub-center in 2017. Finally, he hoped that Xi'an Jiaotong University could continue to work with the Chinese Academy of Engineering to better serve China's Belt and Road strategy.

First Training Program for Silk Road Engineering Science and Technology Development held at Xi'an Jiaotong University

Training Program on Big Data Theory and Practice Innovations and Applications, the first Training Program for Silk Road Engineering Science and Technology Development, was held at Xi'an Jiaotong University from July 4 to July 8, 2016. An opening ceremony was held on the morning of July 4. More than 90 participants, including students from more than 20 countries and key technical management personnel from export-oriented companies in Xi'an Hi-Tech Development Zone, took part in the training. Jointly organized by the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (shortened as "IKCEST") and Xi'an Jiaotong University, the Program aims to provide training classes on engineering sciences and technology for international students from countries along the Silk Road who are studying in China and key business staff from Chinese export-oriented companies and offer support of high caliber personnel for social and economic development in countries along the Silk Road.

Wang Shuguo, President of Xi'an Jiaotong University, Song Dexiong, Executive Deputy Director of IKCEST, and Xing Xin, Deputy Director of Xi'an High-Tech Development Zone attended and addressed the opening ceremony. The opening ceremony was presided over by Vice-President Zheng Qinghua of Xi'an Jiaotong University.

At the opening ceremony, President Wang Shuguo welcomed participants from various countries to the training class and explained the background and significance of the Training Program for Silk Road Engineering Science and Technology Development. He pointed out that the Program will promote international exchanges between China and countries along the Silk Road in culture, technology, product, resources and talent cultivation. He hoped that participants from various countries could enhance mutual understanding and friendship, enjoy their lives and benefit from the training class in the real sense, so as to build a more harmonious and beautiful world together.

Deputy Director Song Dexiong introduced to participants the tasks, goals and missions of IKCEST and spoke highly of the value and significance of the Program. He expressed the hope that the training class should fully leverage its advantages in resources and that IKCEST and Xi'an Jiaotong University should strengthen their cooperation in the future and train specialized talents for the Belt and Road Initiative so as to provide support for Chinese culture and companies to take root in countries along the Silk Road and inject impetus for the development of countries along the Silk Road.

Deputy Director Xing Xin remarked that some leading technical personnel from Xi'an Hi-Tech Development Zone also took part in the training class. She thanked Xi'an Jiaotong University for its consistent support to the innovation-driven development of Xi'an Hi-Tech Development Zone and expressed her high expectations towards the training class.

On behalf of participants, Kheshti Mostafa,

a Ph.D. student from the School of Electrical Engineering, made a speech and spoke of his understanding of the significance and prospects of the Belt and Road initiative and his expectations towards the training class. He hoped that participants could serve their countries and continue to promote friendship and cooperation between countries along the Silk Road after they complete their training and returning home.

The 5-day training class featured face-to-face lectures and visit-based learning. The training includes state-of-the-art technologies in big data and cloud computing and their applications in business fields, history and social development of regions along the Belt and Road, etc. Participants said that the training expanded their vision on computer science and related industries, and enhanced their understanding of development in countries along the Belt and Road and the importance of greater cooperation between countries in the region. After the training, the joint organizers issued certificates to participants who completed all the courses and passed the examinations.

The Program aims to offer intensive training and online and offline learning and exchanges so that participants can master frontier knowledge of international engineering sciences and technology in Internet plus, intelligent manufacturing, biopharmaceuticals, big data and cloud computing, broaden their horizons, promote Sino-foreign exchanges in culture, education and science and technology, thus training a large number of high-end talents, young people and future leaders who are familiar with international rules, shoulder the mission of their own countries, and can meet the urgent demand in infrastructure project construction, product promotion, technical support services, cultural and science and technology exchanges along the Belt and Road and play an important role in serving the Belt and Road strategy.

Second Training Program for Silk Road Engineering Science and Technology Development held at Xi'an Jiaotong University

Training Program on State-of-the-Art Developments in Medical Science and Technology was held at Xi'an Jiaotong University from July 11 to July 15, 2016. This training class was the second of its kind jointly organized by the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (shortened as "IKECEST") and Xi'an Jiaotong University. More than 40 participants, including students from more than 20 countries and key technical management personnel from export-oriented companies in Xi'an High-tech Development Zone, took part in the training. The special training aims to hold a series of training classes on different themes to provide engineering science and technology training to students from countries along the Silk Road who are studying in China, as well as key business staff from Chinese export-oriented companies and offer support of high caliber personnel for social and economic development in countries along the Silk Road.

The 5-day training class mainly featured thematic lectures on individual subject, introducing the latest developments in main medical fields, supplemented by knowledge relating to traditional Chinese culture and big data applications. The Program consisted of 3 sections: state-of-the-art developments in basic medical sciences, pioneering developments in clinical medical sciences, and public knowledge lectures. After the training, the joint organizers issued certificates to participants who completed all the courses and passed the examinations.

IKCEST conducted survey and study of Disaster Risk Reduction Knowledge Service System sub-project

The International Knowledge Centre for Engineering Sciences and Technology Knowledge Center (shortened as "IKCEST") conduct survey and study of Disaster Risk Reduction Knowledge Service System sub-project at the Institute of Geographical Sciences and Natural Resources Research (shortened as "IGSNRR") of the Chinese Academy of Sciences on July 13, 2016. The event was attended by Sun Jiulin, Member of the Chinese Academy of Engineering; Song Dexiong, Executive Deputy Director of IKCEST; Liu Chang, Liu Hongyang and Ma Yingchen, from IKCEST Secretariat; Liu Wei and Shen Ying, platform experts from IKCEST; Wang Shaoqiang, Assistant Director and Head of Research Division of IGSNRR; Deng Xiangzheng, Head of Foreign Cooperation Division of IGSNRR; Wang Juanle and Yang Yaping, Deputy Directors of Earth Data Science and Sharing Research Section of IGSNRR, and staff and postgraduate students from the IGSNRR project team.

The survey was chaired by Prof. Sun Jiulin. On behalf of IGSNRR, Assistant Director Wang Shaoqiang welcomed the IKCEST delegation. Representing the Disaster Risk Reduction Knowledge Service System Project Team, researcher Wang Juanle reported on the project progress, with focus on 6 areas, including survey on domestic and foreign institutions, disaster metadata development, data resources construction, platform system development, international training, and international cooperation. The IKCEST delegation gave its high recognition to the progress, and the research personnel engaged in detailed consulting and discussions on work related to disaster risk reduction and analysis of the top-level design requirements of the IKCEST general platform. Key discussions were made on various technical details, including international cooperation in Disaster Risk Reduction Knowledge Service System, technical connectivity between the general platform and sub-centres, user authorization and openness and sharing policy.

In his concluding remarks, IKCEST Executive Deputy Director Song Dexiong pointed out that the disaster risk reduction knowledge service system has clear goals and direction, with standardized project management and strong implementation. He hoped that further efforts should capitalize on the excellent, existing work to further strengthen the building of metadata standards and collaboration with the National Disaster Reduction Center and offer good international training. Song stressed that the principle should be upheld that the IKCEST provides knowledge-based services for developing and underdeveloped countries, so as to raise the influence of IKCEST within UNESCO. Finally, Song expressed special thanks to Prof. Sun Jiulin, IGSNRR officials and its technical team.

2016 Workshop on Big Data for International Engineering Science and Technology Development in Countries along the Belt and Road held in Beijing

The 2016 Workshop on Big Data for International Engineering Science and Technology Development in Countries along the Belt and Road was held at the training center of the Ministry of Commerce from July 13 to August 2, 2016. Sponsored by the Ministry of Commerce, and organized by the Academy for International Business Officials of the Ministry of Commerce with the support of the Chinese Academy of Engineering and several other institutions, the workshop was attended by more than 20 officials from the relevant government departments of countries along the Belt and Road.

The workshop featured themed presentations and field trips. The themed presentations were made up of general courses and specialized courses, which were designed to help participants understand China's national conditions and learn from the country's industry-specific development experience. The specialized courses covered big data and its application in various specialized fields, data mining, processing and analysis, knowledge service and cloud storage. These courses were given by experts from the technical team at the International Knowledge Center for Engineering Sciences and Technology (shortened as "IKCEST") and aimed at helping the participants with their capacity building in engineering science and technology.

Participants also went to Qingdao and Yinchuan to visit local enterprises and exchanged ideas with local government officials and business leaders. This allowed them to get a better understanding of China's economic development and at the same time seek opportunities for further cooperation.

IKCEST representative attended UNESCO regional cooperation meeting in Indonesia

At the invitation of UNESCO Beijing Office, Ms Liu Chang from the Secretariat of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (shortened as "IKCEST") attended the UNESCO event "Fostering Collaboration between UNESCO in the Field and Networks towards the 2030 Agenda, in conjunction with the Third Asia Pacific Biosphere Reserves Network Strategic Meeting" in Bali (Indonesia) from July 21 to July 22, 2016, where she gave a presentation on UNESCO Science Centres Coordination Meeting outcome document Beijing Action Plan.

The meeting was organized by UNESCO Office in Jakarta and its objectives were to discuss and elaborate the strategies for fostering dialogue, cooperation, networking and sharing of knowledge as well as resources among the UNESCO field offices and its network, support interdisciplinary initiatives and develop joint proposals for Sciences

projects so as to support the delivering of the 2030 Agenda and the Sustainable Development Goals (shortened as "SDGs"). Participants included UNESCO Natural Sciences Sector officials and project experts, National Committee of the Man and Biosphere (shortened as "MAB") Program and representatives from MAB Asia-Pacific Networks, UNESCO Natural Sciences Category 2 Centres and Water Chairs, and partners of UNESCO Jakarta Office Sciences project.

The workshop was officially opened on the morning of July 21 by a video message from Ms Flavia Schlegel, Assistant Director-General for the Natural Sciences Sector of UNESCO, who said that the event was convened at the right time and expressed her expectations of its outcomes.The event began its first session with a presentation by Mr Hubert Gijzen, UNESCO Harare (capital of Zimbabwe) on "Transforming Our World: The 2030 Agenda for Global Action – The Role of Science, Technology and Innovation". The second session focused on the Asia and Pacific Biosphere Reserve Network (APBRN), discussing the potential role of the Silk Road Initiative for achievement of the Sustainable Development Goals (SDGs) .The third session consisted of two parallel meetings dedicated to "UNESCO Field Coordination Mechanisms to promote field and inter-regional cooperation". During this session, representative from IKCEST introduced IKCEST to the attendees from other organisations and centres. The fourth session, "International Hydrological Programme Perspectives" discussed how international hydrological programmes can advance the achievements of the SDGs and water-related goals. The fifth session was "Interdisciplinary Perspectives", where IKCEST representative gave a presentation on Beijing Action Plan.

In her presentation, IKCEST representative gave an introduction to IKCEST, including its vision, functions, establishment procedure and development status and the Chinese Academy of Engineering where the centre is hosted and its important position as the highest honorary and advisory academic institution in engineering sciences and technology in China and its important mission to carry out international exchange and cooperation in engineering sciences and technology on behalf of China.

IKCEST representative also briefed the

attendees on the UNESCO Science Centres Coordination Meeting co-organized by IKCEST in May and the nine agreements included in the outcome document Beijing Action Plan, giving prominence to the consensus on establishing an information and knowledge sharing platform of UNESCO Category 2 institutes and centres to increase mutual understanding, promote cooperation and build up synergy. IKCEST representative asked relevant institutes and centres to give more attention and support to the effort and join forces to advance the subsequent work. The presentation received the support of the attending representatives, and relevant institutes and centres also filled out an questionnaire regarding user needs, which provided a new support for IKCEST to push ahead with relevant activities based on more informed understanding of user needs.

IKCEST representative also introduced a number of important events to be organized by IKCEST within the year, including the IKCEST International Symposium 2016 on Knowledge Service and Intelligent City scheduled for September 4 in Beijing and the IKCEST International Training Workshop 2016 on Big Data Technology Application and Knowledge Service scheduled for November 2 to November 9, and invited relevant organisations and individuals to sign up for the events. Representatives from several centres signed up immediately after the meeting.

After the presentation, a number of Pacific island countries and UNESCO Category 2 centres expressed their intents of cooperation and mentioned their specific needs and cooperation methods. By attending the event, IKCEST introduced its specialized areas, missions and goals and opened cooperation channels with more international organisations.

The participation of IKCEST in the event strengthened its position as an important member of the UNESCO Sciences Category 2 centre family, promoted the implementation of relevant contents of Beijing Action Plan (especially with regard to the construction of the Category 2 centre information sharing platform), further strengthened mutual understanding with more attending organisations, and explored possibilities of cooperation with other Sciences centres and projects.

IKCEST delegation visited Japan and France to implement DRR-related tasks

From July 24 to July 31, 2016, a 5-person delegation from the International Knowledge Centre for Engineering Sciences and Technology (shortened as "IKCEST") visited Japan and France at the invitations of the Natural Sciences Sector, Earth Sciences and Geo-Hazards Risk Reduction (shortened as "DRR") of the United Nations Educational, Scientific and Cultural Organization (shortened as "UNESCO"), the International Centre for Water Hazard and Risk Management (shortened as "ICHARM") in Japan and other organizations. The IKCEST delegation consisted of Song Dexiong, Executive Deputy Director of IKCEST, Liu Chang, Director of IKCEST's International Cooperation Division, and Research Professor Wang Juanle and associate professors Yang Fei and Bu Kun, who are technical leaders of the IKCEST Disaster Risk Reduction Knowledge Service System.

Through its visits to the 3 disaster risk reduction institutions in Japan, the IKCEST delegation hoped to get a better understanding of IKCEST's disaster risk reduction knowledge service tasks among international peers and strengthen cooperation and exchanges between IKCEST and related international institutions.

The delegation called upon UNESCO's DRR Section, reported and exchanged ideas on the working goals, tasks and progress of IKCEST's Disaster Risk Reduction Knowledge Services and further specified UNESCO DRR's actual needs and direction of future cooperation.

The IKCEST delegation also visited UNESCO Headquarters, reported on IKCEST's various work on Category 2 data sharing platform construction and was warmly received by Flavia Schlegel, Assistant Director-General for the Natural Sciences Sector of UNESCO. The visit boosted exchanges and understanding between IKCEST and UNESCO and expanded IKCEST's influence in UNESCO.

(I) Visit to and exchanges with IRIDes, Tohoku University, Japan

The IKCEST delegation visited International Research Institute of Disaster Science ("IRIDes") of

Tohoku University on July 25, 2016.

Founded in 2011, IRIDes is affiliated to Tohoku University. Its main research features include earthquakes and tsunami, covering the whole process from occurrence of disasters to emergency measures and post-disaster reconstruction, online course design, early warning system development, watershed modeling, etc. In April 2015, United Nations Development Programme (shortened as "UNDP") set up a Global Centre for Disaster Statistics ("GCDS") at Tohoku University

Executive Deputy Director Song Dexiong introduced the host to the purpose of the IKCEST visit, Liu Chang gave a briefing on IKCEST and Wang Juanle reported on the progress of the IKCEST Disaster Risk Reduction Knowledge Service System. Prof. Yuichi Ono made an introduction to the International Research Institute of Disaster Science, Tohoku University, with focus on its practices and experience in accumulation of disaster history, science popularization and education of disaster prevention, design of disaster statistical indicators, etc.

(II) Visit to and exchanges with NIED

The IKCEST delegation visited National Research Institute for Earth Science and Disaster Prevention ("NIED"), Japan on July 26, 2016.

Founded in April 1963, NIED is affiliated to the Ministry of Internal Affairs and Communications and the Ministry of Education, Culture, Sports, Science and Technology. Its main research fields include earthquake and fire disaster prevention research, water and sediment disaster prevention research, snow water disaster prevention research, disaster prevention experimental research, social disaster prevention research field, international earthquake and typhoon disaster long-term forecast, and snow and ice disaster forecast systems.

Executive Deputy Director Song Dexiong introduced the host to the purpose of the IKCEST visit, Liu Chang gave a briefing on IKCEST and Wang Juanle reported on the progress of the IKCEST Disaster Risk Reduction Knowledge Service System. Prof. Ken Xiansheng Hao made a report on progress of earthquake forecast modeling. NIED has developed a GEM global earthquake model. In 2014, NIED improved on this model and undertook re-simulation and evaluation based on raw and monitoring data to obtain more accurate evaluation results. The two sides also held academic exchanges on disaster forecast mapping, disaster forecast uncertainty and other aspects.

(III) Visit to and exchanges with ICHARM

The IKCEST delegation visited the International Centre for Water Hazard and Risk Management ("ICHARM") on July 27, 2016.

Founded in 2006 under the auspices of UNESCO, ICHARM is affiliated to the Public Works Research Institute (a national research institution) of the Ministry of Land, Infrastructure, Transport

and Tourism. Its goal is to become a global centre of excellence in water disaster and risk management. The mission of ICHARM is to serve as a global centre of excellence in water disaster and risk management and especially to help the government and all stakeholders to manage water disaster risks at community, national and global levels through observing and analyzing natural and social phenomena, formulating measures and tools, creating knowledge networks, and disseminating experience, lessons and information.

Executive Deputy Director Song Dexiong introduced the host to the purpose of the IKCEST visit, Liu Chang gave a briefing on IKCEST and Wang Juanle reported on the progress of the IKCEST disaster risk reduction knowledge service system. ICHARM shared its application model of data obtaining from University of Tokyo's data integration and analysis system (DIAS) and other international open sources and using its own water disaster risk management model to generate information. Yoichi IWAMI of ICHARM mentioned that they were thinking about how to gradually open the 20PB data in DIAS. The two sides held academic exchanges in the areas of river flood, urban inundation data analysis, big data-based water disaster risk management, and flood forecast downscaling methodology, etc.

(IV) Visit to UNESCO's DRR Section

On July 29, 2016, the IKCEST delegation visited UNESCO's DRR Section, reported and exchanged ideas on the working goals, tasks and progress of IKCEST's disaster risk reduction knowledge services, held in-depth, detailed discussions with Soichiro Yasukawa, head of UNESCO's DRR Section and other departmental staff and further specified UNESCO DRR's actual needs and direction of future cooperation.

(V) Visit to UNESCO Headquarters

The IKCEST delegation visited UNESCO Headquarters and reported on IKCEST's various work on Category 2 data sharing platform construction on July 29, 2016. The delegation was warmly received by Flavia Schlegel, Assistant Director-General for the Natural Sciences Sector of UNESCO, and the two sides held in-depth talk.

In the talk, Flavia recalled the great success of the UNESCO Science Centres Coordination Meeting held in mid-May, stressed its great significance as the first ever event of this kind in history and expressed her thanks to President Zhou Ji and the Chinese Academy of Engineering for their great support and to the IKCEST team for their efficient work. Flavia also highly recognized the importance of international disaster risk reduction work and believed that such work could contribute to the implementation of the 2030 Agenda and the Sustainable Development Goals, calling it a model of cooperation between Category 2 centres and the concerned sections at UNESCO Headquarters. She had full expectations of IKCEST's future work in the areas of UNESCO Category 2 information sharing platform construction and disaster risk reduction. The IKCEST delegation also met with Mr. Han Qunli of the Natural Sciences Sector of UNESCO.

Through considerable exchanges, discussions and on-site surveys, the IKCEST delegation obtained a series of results from its visits to disaster risk reduction institutions in Japan: strengthened cooperation and exchanges concerning data sharing policies in the disaster risk reduction field in Japan; enhanced cooperation and exchanges with Japanese disaster risk reduction institutions in the areas of disaster loss statistical indicators and metadata standards and elements; and learned Japanese experience in social services for disaster risk reduction. Japanese disaster risk reduction institutions said that they could share with the international community their earthquake data catalogues of the past 50 more years. IKCEST will obtain their data opening information by visiting relevant websites.

After reporting to and exchanging ideas with UNESCO's DRR Section on the working goals, tasks and progress of IKCEST's disaster risk reduction knowledge services, the delegation won recognition and support from UNESCO's DRR Section. UNESCO's DRR Section agreed to and supported the idea that IKCEST should organize DRR-related workshops and said that it would assist in the invitation of international experts. UNESCO's DRR Section also agreed to adopt a model of bilateral cooperation to implement the relevant tasks of disaster risk reduction database construction and knowledge services and put forward to IKCEST in writing the objectives and tasks of cooperation.

When receiving the delegation, Flavia Schlegel spoke highly of IKCEST, calling it "an active, committed and outstanding Category 2 centre"

which has set a good example for other Category 2 centres around the world. She considered IKCEST a model for other UNESCO Category 2 centres.

To implement the results of the visits, IKCEST will continue to deepen its cooperation and exchanges with UNESCO's DRR Section, pool consensus, and solidly push forward the construction of its disaster risk reduction knowledge service system. The specific plans are as follows:

As for business capacity building, IKCEST will strengthen its application service capabilities in accordance with the requirements of UNESCO. IKCEST plans to closely link up with international demand, national strategies and local needs and develop a series of application services in the fields of drought monitoring in the Belt and Road region, earthquake disaster relief and reconstruction in China and Central Asia, flood control of densely populated areas in China and Southeast Asia, and ecological recovery from snow and ice freeze disasters due to extreme weather events.

At the level of cooperation with UNESCO, IKCEST will make active preparations for the UNESCO Workshop of International Experts on Disaster Risk Reduction Knowledge Service and the Working Conference of Experts to be held in Beijing in November 2017. IKCEST plans to work out a preparation plan in the fourth quarter of 2016 and contact UNESCO's DRR Section to recommend international experts. The first circular will be written and sent out in the first half of 2017, while the second circular will be ready and the conference agenda be specified in mid-2017. Through this work system, IKCEST will summarize and hold exchanges on the progress and results of its disaster risk reduction knowledge service system in the past year or so and listen to suggestions from international experts.

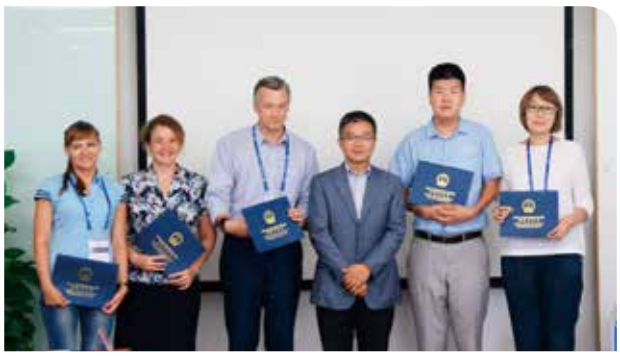
At the level of academic exchanges with international experts, IKCEST will continue to expand and strengthen its cooperation with the international disaster risk reduction institutions which it has already visited, and widen its exchanges and cooperation with disaster risk reduction institutions in other developed and developing countries. IKCEST will focus on strengthening its cooperation with the International Research Institute of Disaster Science, Tohoku University, Japan in UNDP disaster statistics database construction and plan to attend the international disaster conference to be organized by the Institute in Sendai, Japan in November 2017. IKCEST will strengthen its cooperation with ICHARM in the areas of data sharing, flood control and international talent training, expand its exchanges with data science centres and disaster risk reduction institutions in key fields in the United States, Europe and other developed countries, and enhance its exchanges with institutions in China's neighboring countries, as well as developing countries in the Belt and Road region.

As for domestic cooperation level, IKCEST will continue to consolidate the achievements of its cooperation and exchanges with the National Disaster Reduction Centre of the Ministry of Civil Affairs and other institutions, and strengthen cooperation in the areas of international disaster risk reduction information exchanges, training of young scientists, and disaster risk reduction data product release. To leverage the research strengths of the Chinese Academy of Sciences, IKCEST will strengthen exchanges and cooperation with the concerned disaster research laboratories of both the Chinese Academy of Sciences and the Ministry of Education, and actively promote the connectivity of scientific research and disaster risk reduction knowledge service system.

2016 International Training Workshop on Resources and Environment Data Sharing Technology for the Silk Road Economic Belt held in Beijing

The 2016 International Training Workshop on Resources and Environment Data Sharing Technology for the Silk Road Economic Belt was held in Beijing from August 6 to August 25, 2016. Sponsored by the International Cooperation and Exchange Center of the Ministry of Science and Technology and co-sponsored by the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (shortened as "IKCEST") and other agencies, the training workshop was organized by the Institute of Geographic Sciences and Natural Resources Research of the Chinese Academy of Sciences where the IKCEST Disaster Risk Reduction Knowledge Service System was based. On August 24, Song Dexiong, Executive Deputy Director of IKCEST, Liu Chang, Director of the Division of International Cooperation of IKCEST and Ma Yingchen, Project Manager of IKCEST, attended the closing ceremony and issued certificates to the participants.

The 20-day training program was attended by nearly 20 young scientists from developing countries along the Belt and Road and offered more than 20 lectures, covering the Belt and Road strategy, resources, environment and big data, disaster risk reduction applications, informatization of scientific researches, data sharing technology, data production and mapping, and international cooperation in data sharing. International experts from the University of Michigan, the ICSU World Data System and other institutions were invited to give lectures in China. Meanwhile, arrangements were also made to visit scientific data sharing and data industry bases. IKCEST expert gave a lecture on "IKCEST: Founding Philosophies and Current Practices", which was well received by the trainees. The training program aimed to provide developing countries along the Silk Road Economic Belt with theoretical and practical training on scientific data sharing and disaster risk reduction-related policies, standards and specifications, technical methods, software platforms and data management. The training class improved those young scientists' understanding of disaster risk reduction knowledge service and expanded the influence of IKCEST on international stage.



XJTU delegation visited CAE for IKCEST cooperation

In order to better implement the country's "Belt and Road Initiative" by giving full scope to the role of the Silk Road Universities Network, a Xi'an Jiaotong University (shortened as "XJTU") delegation led by its President Wang Shuguo, CAE Member Zheng Nanning and Vice President Zheng Qinghua visited CAE on August 30 for a discussion on the establishment of "IKCEST Training Base" at the university. The meeting was chaired by CAE President Zhou Ji and attended by CAE Vice President Chen Zuoning, Secretary-General Zhong Zhihua, Deputy Secretary-General Wu Guokai, and Executive Deputy Director of IKCEST Song Dexiong, among others.

At the meeting, XJTU President Wang Shuguo stated that talent is a key factor for the Belt and Road Initiative, which is needed in large amounts of countries along the Belt and Road routes as well as in China's efforts to introduce its culture, capital, technology and products to those countries. Through the establishment of the IKCEST Training Base, XJTU hopes to train a strong force of engineering sciences and technology talent that are familiar with international practices and capable of ably undertaking given missions for countries along the Road and Belt routes. He said that it is a strategic decision which both serves China's national strategy and meets the needs of the countries along the routes and will prove to be a powerful force in strengthening China's soft power globally.

Prof. Zheng Nanning stated that against the backdrop of China's overall diplomatic guideline of "combining the countries along the Belt and Road routes and connecting Asia and Europe", the Belt and Road Initiative is not only an economic strategy but also a humanistic and cultural strategy, a drive where the IKCEST Training Base will play an important role.

XJTU Vice President Zheng Qinghua reported on the construction framework of the IKCEST Training Base at XJTU, giving detailed information on the development goals, development roadmap and development plan of the base.

CAE President Zhou Ji spoke highly of the base development plan and expressed thanks for what the university has done in relation to the IKCEST Silk Road Technology Sub-centre. Mentioning the university's westward relocation in history, he said that XJTU has a tradition of shouldering historic tasks assigned by the state and has taken a series of important measures in furtherance of the Belt and Road Initiative, including the establishment of the Silk Road Universities Network, West China Science, Technology and Innovation Harbour and the IKCEST Training Base, reflecting the university's stature and strong standing. Zhou Ji expressed the hope of strengthening cooperation with XJTU to complete the various tasks of the construction of the IKCEST Training Base and attain even greater achievements in the Belt and Road Initiative.

IKCEST International Symposium 2016 on "Knowledge Service and Intelligent City" held in Beijing

The IKCEST International Symposium 2016 was held in the headquarters of the Chinese Academy of Engineering (shortened as "CAE") in Beijing on September 4, 2016. Themed on "Knowledge Service and Intelligent City", the symposium was hosted by CAE and organized by the International Knowledge Centre for Engineering Sciences and Technology under the auspices of UNESCO (shortened as "IKCEST"). More than 400 representatives attended the symposium, including over 20 renowned foreign and domestic academicians and experts.

Zhou Ji, President of CAE, Chen Zuoning, Vice President of CAE, Zhou Jiagui, Deputy Secretary-General of the Chinese National Commission for UNESCO and Hans Thulstrup, Program Specialist of UNESCO Beijing Office addressed the symposium. President Zhou Ji mentioned that the Chinese Academy of Engineering was very willing to carry out active and in-depth cooperation with UNESCO and international engineering science and technology institutions in intelligent transportation, modern logistics and Internet of things, thus jointly promoting the prosperity and development of the world's engineering science and technology sector.

Centered on "Knowledge Service and Intelligent City," the symposium was divided into two sessions. The morning session was moderated by Prof. Wu Cheng, CAE Member, with four speakers giving keynote speeches respectively. Prof. Pan Yunhe, CAE Member, analyzed profoundly the development models of intelligent city in China. From global interest in smart cities to various perspectives of the development of intelligent city in China, the report showed much concern and expectation to the development of Chinese intelligent cities. Prof. Raj Reddy, CAE Foreign Member, also Turing Award Winner, talked about the role of smart villages in the 21st century and the problems and difficulties that might occur during the development. Introduction to the infrastructure and services needed from a smart village perspective was also given. Prof. Li Bohu, CAE Member, unscrambled the connotation of smart city and proposed the system architecture and the body of technology for big data platform in smart city. Some proposals to develop the studies and practices on big data in smart city were further suggested. Prof. Bernhard Mueller from German Academy of Science and Engineering (acatech) believed that the eco-city and the intelligent city were two closely related concepts. With great insight, the report provided some thoughts into the question how "intelligence" and knowledge systems contribute to shaping modern eco-cities, and thus may foster environmentally sustainable and resilient urban development.

The afternoon session was moderated by Prof. Narayanaswamy Balakrishnan, Fellow of Indian Institute of Science. Prof. Gao Wen, CAE Member, proposed that mobile devices showed great potential for visual search and put forward a collaborative platform to evaluate the state-of-the-art visual search techniques and solutions. Gary Hack, Professor Emeritus of University of Pennsylvania and MIT, believed that dramatic changes to city form would have an impact on how intelligence would be added to cities and explained the possible form of cities over the next two decades as a basis for deciding how to construct the smart city. Prof. Wu Zhiqiang, Vice President of Tongji University, emphasized the

importance of building a mutual knowledge sharing platform to promote intelligent city development and proposed a platform designed to provide the public, scholars and experts with knowledge in three dimensions. Prof. Otthein Herzog, Member of German Academy of Science and Engineering (acatech), pointed out that the first step to "Intelligent Cities" were "Integrated Cities" where a reliable control was available for the information to flow across system boundaries. Rules could be extracted from integrated data through Data Mining and Knowledge Discovery technologies which in turn could serve as a basis for a set of models which allow for a "digital representation" of the complex processes within cities.

An atmosphere of warm friendship prevailed at the two panel discussion sessions, with speakers answering questions raised by the audience, and in-depth interactive communication carried out. The symposium came to an end with Vice President of CAE Chen Zuoning giving the closing speech.

The symposium provided a platform for top scientists and engineers, scholars and experts all over the world to share research progress and insights, making significant contribution to facilitate the world's engineering science and technology community to carry out active and close cooperation in intelligent city development, technology research on big data and knowledge service, etc. in the future.

Second session of the First Governing Board of IKCEST under the auspices of UNESCO held in Beijing

The second session of the First Governing Board of International Knowledge Centre for Engineering Sciences and Technology under the auspices of UNESCO (shortened as "IKCEST") was held in the headquarters of the Chinese Academy of Engineering on September 5, 2016. The meeting was chaired by Chen Zuoning, Chairperson of the First Governing Board of IKCEST, and attended by board members Li Guojie, Hans D. Thulstrup, Zheng Nanning (represented by Zheng Qinghua), Otthein Herzog, Raj Reddy, Gao Wen, Pan Yunhe and staff members of the IKCEST Secretariat. Prevented to attend the meeting due to their other engagements, board members Eduardo M. Krieger, Du Yue and Zhong Zhihua all gave written approval to the documents motioned for deliberation by the Governing Board.

The meeting heard and deliberated on the IKCEST 2016 Work Report made by the IKCEST Secretariat, and all attending board members gave their recognition of the work undertaken by IKCEST in 2016. Representing United Nations Educational, Scientific and Cultural Organization (shortened as "UNESCO"), Hans D. Thulstrup, Programme Specialist for Natural Sciences of the UNESCO Beijing Office, remarked that the IKCEST 2016 Work Report was comprehensive and informative and that UNESCO wished to express its appreciation of and gratitude for the progress IKCEST made in 2016, as well as the support and contributions IKCEST made to UNESCO. The meeting reviewed and adopted the IKCEST Biennial Report (2015-2016) and the IKCEST Biennial Work Plan (2017-2018) drafted by the IKCEST Secretariat.

At the meeting, members of Governing Board made suggestions for the future work of IKCEST: The IKCEST platform is a long-term undertaking, and it is hoped that IKCEST could adopt a longer-term strategic vision to plan and design the long-term goals and supporting funds for the development of the platform and fulfill the mission of serving the global engineering science and technology community in the future; IKCEST should commit itself to connecting knowledge among countries of the world and strive to build itself into a world knowledge center; it is hoped that IKCEST should focus not only on the engineering sciences and technology field but also on the in-depth integration between engineering sciences and technology and the cultural field, such as adopting information technology to digitalize cultural heritages and employing VR technology to develop virtual tourism of cultural heritages; and it is also hoped that IKCEST includes more specific measures in its future work plan to promote the publicity and protection of cultural heritage.

After the session, all attending board members took a group photo.

Second session of the First Advisory Committee of IKCEST under the auspices of UNESCO held in Beijing

The second session of the First Advisory Committee of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (shortened as "IKCEST") was held in Beijing on the morning of September 5, 2016. The meeting was moderated by CAE Member Pan Yunhe and Prof. Raj Reddy, co-chairs of the First Advisory Committee. Nine members of the second session of the First Advisory Committee, as well as Hans Dencker Thulstrup, Programme Specialist for Natural Sciences of the UNESCO Beijing Office, system platform experts of IKCEST, representatives from various sub-centres and staff members of IKCEST Secretariat attended the meeting.

Participants reviewed and discussed the report of the IKCEST platform development work and put forward a series of suggestions such as identifying target users, bringing out the features of the platform, cooperating with the industrial circles and paying attention to the needs of the developing countries. They also recommended that IKCEST should set up an active and interactive platform, providing users with service packages, and collaborate with universities to better serve the students in terms of conducting innovation activities and starting businesses. Besides, they reached an agreement that information should be connected through technological means, making it easier for all the users to participate in the knowledge sharing process. It is also suggested that, engineering sciences and technology should be integrated with basic sciences and culture so that the strength of engineering sciences and technology could be utilized to promote the protection of cultural heritage.

Members also talked over the UNESCO Category 2 Institutes and Centres (shortened as "C2ICs") Platform Development and came up with a list of proposals such as identifying the role of IKCEST, attracting other Category 2 Institutes and Centres to take part, appropriately apportioning development costs among centres, and paying more attention to the needs of the developing countries.

At last, the meeting held discussions on the IKCEST International Symposium 2017 and agreed that the Symposium should focus on the key issues of developing IKCEST and explore the direction of its development. At the same time, participants believed that Artificial Intelligence was one of the most important factors that influence the researches on knowledge service and determined the theme of the IKCEST International Symposium 2017 as "Knowledge Service and Artificial Intelligence".

After the meeting, all the participating members of the second session of First Advisory Committee of IKCEST took a group photo.

Malaysian HTC delegation visited IKCEST

On September 5, 2016, Liu Chang, Director of Division of International Cooperation of the International Knowledge Centre for Engineering Sciences and Technology (shortened as "IKCEST") and Liu Hongyang, Ma Yingchen and Zhang Ye from the IKCEST Secretariat met with a survey and study delegation from the Malaysian Regional Humid Tropics Hydrology and Water Resources Centre for South-East Asia and the Pacific ("HTC"). Members of the visiting HTC delegation included international project coordinators Nazim Keling and Akashan Bin.

At the meeting, the HTC delegation congratulated IKCEST on the success of the IKCEST International Symposium 2016, expressed the hope to organize the second UNESCO Science Centres Coordination Meeting, and briefed the host on its communication with UNESCO Headquarters on staging the conference. The visiting delegation also consulted with IKCEST on various organizational work of the First UNESCO Science Centres Coordination Meeting organized by IKCEST, and IKCEST Secretariat members gave item-by-item answers to all the questions to the interest of HTC delegation.

After the meeting, the two sides took a group photo.

IKCEST representative attended the Expert Committee Meeting of the CAETS Knowledge Sharing Platform

CAE President Zhou Ji led a delegation to the International Council of Academies of Engineering and Technological Sciences (CAETS) Convocation 2016 in London upon the invitation of the Royal Academy of Engineering of the UK, and delivered a report at the conference from September 12 to September 16, 2016. On the margins of the conference, President Zhou also had bilateral meetings with the leaders of the relevant national academies of engineering.

Established in 1978, CAETS is the most important academic organization in the international engineering community. The current CAETS membership consists of the engineering academies from 26 major countries, including the Chinese Academy of Engineering. With the aim of promoting world economic prosperity and social well-being through the advance of engineering technologies, CAETS provides the exchange mechanism for the academies of engineering and technological sciences from major countries to find common solutions to the important issues in the overlapping areas of science, technology and society. The members can exchange and share experience and technologies through CAETS to solve the issues of engineering technologies they face in their countries and increase the well-being of their people.

The CAETS Convocation 2016 is hosted by the Royal Academy of Engineering of UK and attended by 23 member academies. The program of this year's Convocation included the academic workshop under the theme Engineering a Better World, the Board of Directors Meeting, the Energy Committee Meeting and the Expert Committee Meeting of the CAETS Knowledge Sharing Platform.

The IKCEST and CAE representatives attended the Expert Committee Meeting of the CAETS Knowledge Sharing Platform on the afternoon of September 12. The meeting was also attended by the expert committee members from the engineering academies of the US, the UK, Japan and Mexico. The IKCEST representative introduced the background, goals, vision and guiding principles of the platform, shared with the audience the initial plan for the structure, functions and contents of the system, and made an online demonstration of the services provided to the users on the platform. Experts attending the meeting commended CAE's dedicated effort on this work and the progress made in the initial stage, and discussed the issues concerning the input, safety, target users, key functions and future workflow of the platform. Due to the absence of the CAETS Secretary, who is going to be leading and coordinating the efforts after the meeting, the participants decided to wait till the arrival of the new Secretary to push this work.

The visit of the CAE delegation has further boosted its influence in the CAETS network and strengthened its cooperation and exchanges with other CAETS members. It has also demonstrated the willingness and ability of CAE to build a knowledge sharing platform for all CAETS member countries and played a positive role in promoting future CAETS cooperation.

The State-owned Cultural Assets Supervision and Administration Office of People's Government of Beijing Municipality visited IKCEST

The International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (shortened as "IKCEST") and the State-owned Cultural Assets Supervision and Administration Office of People's Government of Beijing Municipality met to discuss future cooperation on September 23, 2016.

The meeting took place in Meeting Room 219 of the Chinese Academy of Engineering (CAE). The participants included Song Dexiong, Executive Deputy Director of IKCEST; Gao Xiang, Liu Chang, Fu Zhijie, Liu Hongyang and Zhang Ye from the IKCEST Secretariat; Huang Junxiong, Deputy Director of the Science, Technology and Innovation Division of the State-owned Cultural Assets Supervision and Administration Office of People's Government of Beijing Municipality; and Qin Xiaopeng, General Manager of the Conference and Exhibition Centre of Beijing International Advertising and Communication Group Co., Ltd.

During the meeting, Huang introduced the main functions of the State-owned Cultural Assets Supervision and Administration Office of People's Government of Beijing Municipality and expressed readiness to work with the IKCEST in the following aspects: answering the call of the nation to support companies involved in mass entrepreneurship and innovation and promote the platform of the China Knowledge Centre for Engineering Sciences and Technology (shortened as "CKCEST") for mass entrepreneurship and innovation; leveraging the resources of the companies under its supervision to provide publication, circulation and publicity services for the IKCEST; conducting joint training courses, forums and lectures to cultivate high-end brands of science and technology culture; making use of its cultural industrial park to help the IKCEST expand exhibition space.

Then, Song briefed the participants the general information of the IKCEST, including

its background of establishment, functions and progress of construction. He said that the IKCEST is a category 2 centre under the auspices of UNESCO. Its purpose is to consolidate various kinds of digital resources of engineering technologies, jointly build a knowledge service system and provide capacity building services for developing countries. The IKCEST has been working on the construction of four sub-centres and has organized several international training courses, mainly targeted at users and trainees from developing countries. Song expressed strong support for future cooperation between the two sides and shared his views about possible areas of cooperation, such as strengthening the integration of science, technology and culture, and jointly building training bases.

During the meeting, the two sides had an in-depth discussion on the possibility of cooperation and reached consensus on cooperation in the following fields: promoting the integration of science, technology and culture based on the business needs of both sides and within the scope of their respective functions; jointly building training bases that can leverage their respective resource advantages; jointly conducting overseas training to support the going global of Chinese culture.

The meeting achieved the purpose of enhancing mutual understanding. The two sides shared the broad prospect and space for cooperation and agreed to enhance cooperation through further discussions.

IKCEST popularized science knowledge among young people

In order to accommodate the Campaign on “Teenagers Go into the Chinese Academy of Engineering (CAE)” launched by the CAE, the International Knowledge Centre for Engineering Sciences and Technology (IKECEST) was opened to youngsters on July 17, 20, 21, August 11, 12, September 6 and 9 respectively, in order to introduce the concepts of building the centre and popularize related science knowledge.

CKCEST News

The China Knowledge Centre for Engineering Sciences and Technology (shortened as "CKCEST") is a significant part of and vital support for the International Knowledge Centre for Engineering Sciences and Technology (shortened as "IKCEST").

CKCEST top-level design optimization plan framework expert verification meeting held in Beijing

On June 17, 2016, the Project Management Office of the China Knowledge Centre for Engineering Sciences and Technology (shortened as "CKCEST") organized a top-level design optimization plan framework expert verification meeting at the Chinese Academy of Engineering. Presided over by Song Dexiong, Director of the CKCEST Project Management Office, the meeting was attended by members of the Office, experts invited from outside and members of the Inspur project team. Attending experts listened to the report on the top-level design optimization plan framework of CKCEST made by the Inspur project team. Following discussions and deliberations, they decided the plan framework passed verification and commented as follows:

1. The design optimization plan framework is comprehensive and covers all the needs and actual requirements involved in the project objectives, and the design basically has an accurate positioning; and

2. The framework structure is basically rational, and its design depth meets the requirements of top-level design and its technical route is basically rational and feasible.

CAE and Inspur signed Cooperation Agreement

On the afternoon of June 21, 2016, the Chinese Academy of Engineering (shortened as "CAE") and the Inspur Group signed a strategic cooperation agreement in Beijing. The signing ceremony was attended by Honorary Chairman of the CAE Governing Board and Member Song Jian, President Zhou Ji, and Vice-Presidents Zhao Xian'geng and Chen Zhuoning of the Chinese Academy of Engineering (CAE), and Chairman Sun Pishu, Executive President Yuan Yisheng and Vice-President Zuo Baichen of the Inspur Group.

President Zhou Ji pointed out that implementing an innovation-driven development strategy and striving for the modernization of China is the "destined mission" of the CAE and that it will be of great significance for leveraging the leading role of technological innovation in comprehensive innovation, strengthening the position and dominant role of enterprises as the entity of innovation and promoting the in-depth integration between science and technology and the economy.

Chairman Sun Pishu pointed out that the Inspur Group should seize the opportunity of technological innovation to achieve the leap-forward development on the one hand and shoulder more responsibilities on the other hand. The Inspur Group would make the most of its resource advantages in informatization to fully support the development of information technology application in CAE and provide comprehensive information support for strategy researches and decision-making consultancy of CAE.

According to the agreement, the two sides have specifically decided to cooperate in 9 major areas, including organizing strategies consultancy service, fully pushing forward information system building within the CAE, greatly supporting the implementation of the China Knowledge Centre for Engineering Sciences and Technology Project of the CAE.

The signing of the cooperation agreement will further deepen cooperation between the CAE and the Inspur Group, fully leverage the collective intellectual resources advantages of CAE members, combine the leading role of the CAE as a national think tank and the resources advantages of the Inspur Group in IT infrastructure, cloud computing, big data, new product innovation and research and development, make science and technology innovation serve the society, and contribute to the fulfillment of the goals of China's national innovation-driven development strategy.

Kick-off meeting on constructing Aerospace Engineering Specialized Knowledge Sub-Centre held in Beijing

The China Aerospace Academy of Systems Science and Engineering had a kick-off meeting on constructing an Aerospace Engineering Specialized Knowledge Sub-Centre in the meeting room on the fourth floor of its office building on June 24, 2016. The meeting was attended by Wang Liheng, Du Shanyi, Luan Enjie and Zeng Guangshang, CAE Members, Wang Kunsheng, Director of the Science and Technology Committee of the China Academy of Aerospace Systems Science and Engineering, Fan Yida, Deputy Director of the National Disaster Risk Reduction Centre, Pan Gang, Deputy Director of the CKCEST Project Management Office of the Chinese Academy of Engineering, Fu Zhijie, Deputy Head of the Information Department II of the CAE Consultancy Service Centre and concerned leaders of the China Academy of Aerospace Systems Science and Engineering. The meeting was presided over by Prof. Wang Liheng. Participants held in-depth discussions and exchanges over the overall construction plan, objectives, contents and implementation of the aerospace engineering knowledge sub-centre, finally adopted the overall construction plan for the aerospace engineering knowledge sub-centre, agreed to launch the project and put forward some constructive views.

Discussion seminar on Knowledge Centre expert database data collection plan held in Hangzhou

The Knowledge Centre expert database data collection specifications discussion meeting was held in Hangzhou on July 15, 2016. The meeting was presided over by Huang Chen, Deputy Chief Librarian of Zhejiang University Library and attended by Pan Gang, Deputy Director of Project Management Office. Meanwhile, experts from CKCEST's forestry, fishery and water conservancy sub-centres were also invited to attend. Currently, the expert database building sub-project team of Zhejiang University has gathered data of more than 7 million expert and over 100 million resources items covering papers, patents and research results. The relevant resources have been shared with sub-centres through interfaces. The project team will also develop resources collection tools to include core expert data cleaned by sub-centres into a unified expert database for co-building and sharing. The meeting also deliberated on expert database data sharing and collection plans. The project team also plans to organize an expert database data sharing and collection plan technology training conference on the systems that have already been developed.

Kick-off meeting on Experimental Technology Specialized Knowledge Service System construction held in Beijing

The Kick-off Meeting on Experimental Technology Specialized Knowledge Service System building and China Capacity Verification Alliance Inauguration Meeting was held on July 19, 2016. The meeting was presided over by CAE Member Wang Haizhou. More than 50 experts from the Ministry of Science and Technology and the Ministry of Education were also invited to the meeting. Director Song Dexiong and Deputy Director Pan Gang of the CKCEST Project Management Office also took part in the meeting. Prof. Wang Haizhou put forward the idea of collaboration that "the China Capacity Verification Alliance provides real time de facto data to the Experimental Technology Sub-Centre and develops itself into a Verification Alliance of Massive Resources of Knowledge Centre on Service Capacity", and Senior Engineer Tang Lingtian reported on the background, objectives, tasks, technical structure and implementation plan of the project. Attending experts discussed issues of sub-centre building and development and shared their respective experience and lessons in information system construction. Finally, all the attendants agreed that the project could provide basic, scientific and systematic experimental technological support for related engineering science and technology fields in China and would be of great significance. They expressed the hope that the project can play its practical role as soon as possible.

Top News for Big Data Era

Language big data takes off to lift big data to new level

The "Language · Big Data Open 2016" Conference was held in Qingdao on April 8, 2016. The meeting attracted more than 200 attendees, including Qingdao Vice-Mayor Luan Xin, China Publishing Group Vice-President Pan Kaixiong and other officials, heads of over 100 foreign language colleges, experts of research institutions, representatives of Internet companies, and big data analysts, to discuss issues of the construction, sharing and cooperation of cross-language big data resources platform. Nearly 5,000 viewers outside the conference venue took part and shared their idea via online live broadcasting platform.

In the big data era, data as a means of production are iterating new value all the time. The value of single language data is now well recognized worldwide. In 2015, big data software, hardware and specialized services in China had a direct output value of over RMB11 billion. Cross-language big data volumes are several times that of single language big data. Cross-language big data statistics, analysis, mining and AI will also create a value several times that of single language big data. Their overall value will be startling.

Excerpt from www.huanqiu.com

Big data, "Internet Plus" become strategic actions leading China's economic development under New Normal

The 2016 China Big Data Industry Summit and China E-commerce Innovative Development Summit (shortened as "Big Data Expo") was held in Guiyang from May 25 to May 29, 2016. The Expo was jointly organized by the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Commerce, the Office of the Central Leading Group for Cyberspace Affairs and the Guizhou Provincial People's Government. Chinese Premier Li Keqiang attended the opening ceremony, and Britain, the United States and other countries also sent delegates to the Expo. Officials from central ministries and commissions, experts, scholars, as well as representatives of influential information associations, organizations and institutions, and senior executives of Alibaba, Jingdong, Jumore and other leading e-commerce firms gathered together and discussed integrated innovations of

big data in various sectors.

According to the 2015 China E-commerce Market Data Monitoring Report released by the China E-commerce Research Centre, e-commerce trading amounted to RMB18.3 trillion in China in 2015, up by 36.5% year-on-year. In a macro environment where e-commerce grows rapidly and traditional development models can hardly sustain, an era of using big data to change business models has already quietly arrived.

Excerpt from www.caijing.com.cn

Beijing, Tianjin and Hebei to build Big Data Integrated Pilot Zone together

During the Thirteenth Five-Year Plan Period, Beijing, Tianjin and Hebei will build a Big Data integrated pilot zone together. From the release conference of Beijing Software and Information Service Industry Development Plan for the Thirteenth Five-Year Plan Period, the reporter learned that the three places will work together to break administrative and regional barriers in big data thinking, technology, model, product and service and build a Beijing-Tianjin-Hebei big data integrated pilot zone together to turn Beijing-Tianjin-Hebei region into a national big data industry innovation centre, a national big data application pilot zone, a national big data innovation and reform integrated pilot zone, and a leading big data industry innovation centre in the world.

It is understood that Beijing, Tianjin and Hebei will build upon respective features and comparative advantages. Among them, Beijing will strengthen its innovation and guidance work, while Tianjin will boost its driving and supporting roles and Hebei its role of industry transfer to form a "1+2+4" collaborative development function layout, featuring Beijing Zhongguancun + Tianjin Binhai New Area and Wuqing + Zhangjiakou, Langfang, Chengde and Qinhuangdao of Hebei. According to Jiang Guangzhi, Member of the Beijing Municipal Commission of Economy and Information Technology, "Beijing has made it clear that it will not encourage data centre to be built on its territory. The three places will experiment and explore integrated use of data centres, speed up the construction of large-capacity backbone network facilities, expand the coverage of Internet of Things in infrastructure, and push forward data centre building in the Beijing-Tianjin-Hebei region to concentrate in Zhangbei and other areas." As for typical big data applications, Jiang added that the three places will target at the major demand for collaborative development between Beijing, Tianjin and Hebei and push forward big data services that can serve and benefit citizens.

Excerpt from People's Daily

Terms on Big Data

Knowledge Clustering

Knowledge Clustering: Knowledge clustering is a method of sequential organization of knowledge. It refers to the process of classifying and ordering resources according to certain criteria and forming orderly set clusters. After clustering, knowledge clusters with the same data object bear a high degree of similarity, while knowledge clusters with different data object have a low level of similarity. Like classification, knowledge clustering can also divide knowledge into orderly sets. However, clustering generally cannot give category names for different sets. Supporting the clustering analysis function is one of the basic requirements for building specialized knowledge centres.

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