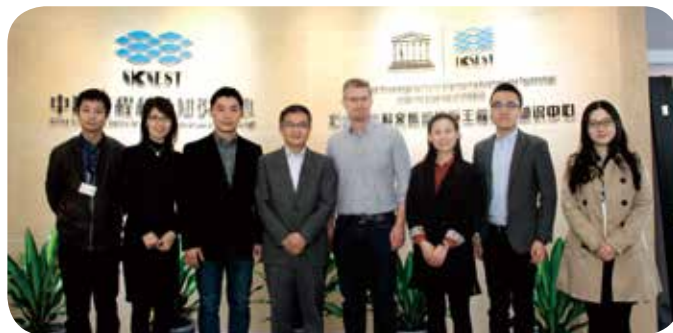




International Knowledge Centre
for Engineering Sciences and Technology
under the Auspices of UNESCO
联合国教科文组织国际工程科技知识中心

Newsletter

March 2016 No. 1



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



**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**

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

Sponsored by:

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

Editor-in-chief:

Song Dexiong

Managing Editor:

Liu Chang

Editors:

Ma Yingchen Wang Guan
Liu Hongyang Chen Yan
Jin Yan Xu Shuo
Cao Jianfei Fu Zhijie

Address:

No.2 Bingjiaokou Hutong,
Xicheng District, Beijing
100088, P. R. China

Tel:

+86-10-59300230

Fax:

+86-10-59300230

IKCEST News

- 04 First preparatory meeting for UNESCO Science Centres Coordination Meeting held in Beijing
- 05 First video conference for UNESCO Science Centres Coordination Meeting held
- 06 Second preparatory meeting for UNESCO Science Centres Coordination Meeting held in Beijing
- 06 Thai delegation of International Training Centre in Astronomy visited IKCEST
- 08 Symposium on IKCEST platform development held in Beijing
- 09 Newly-elected CAE members visited IKCEST
- 10 Third preparatory meeting for UNESCO Science Centres Coordination Meeting held in Beijing
- 11 Second video conference for UNESCO Science Centres Coordination Meeting held
- 12 Trainees of Engineering Education and Engineering Management Workshop for Developing Countries visited IKCEST
- 13 Seminar on IKCEST work progress video scripts held in Beijing
- 14 Seminar on Disaster Risk Reduction meta database development held in Beijing
- 15 Representatives of Chinese National Commission for UNESCO and UNESCO Beijing Office visited IKCEST
- 16 Training session for IKCEST sub-centres held in Beijing
- 16 30th Session of Chinese National Commission for UNESCO held in Beijing
- 17 IKCEST popularized science knowledge among young people

CKCEST News

- 18 CKCEST held seminar on expert database development
- 18 CKCEST completed 2015 work summary
- 18 Application system platform phase 3 launch meeting held in Beijing
- 19 CKCEST held meeting for assessment of contractor candidates of new sub-centres in 2016
- 19 Annual work report meeting of information technology professional knowledge service system held in Beijing
- 19 Report meeting on CAETS platform development plan held in Beijing
- 20 Annual work summary meeting of knowledge organization system held
- 20 Seminar on metal, chemical and metallurgical knowledge service system held in Beijing

Top News for Big Data Era

- 21 Big Data: for "application" , not for "size"
- 21 EU to scrutinize Big Data usage by large internet firms
- 22 AIE: Big Data marketing services spending in China tops RMB 2 billion
- 22 ITU members agree on international standard for Big Data

Terms on Big Data

- 23 Knowledge Organization



» IKCEST News

First preparatory meeting for UNESCO Science Centres Coordination Meeting held in Beijing

On January 20, 2016, the first preparatory meeting for the UNESCO Science Centres Coordination Meeting was held at the headquarters of the Chinese Academy of Engineering.

The meeting was held by the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST), presided over by Yi Jian, Executive Deputy Director of IKCEST, and attended by Song Dexiong, Deputy Director of the General Office of Chinese Academy of Engineering (CAE), Gao Xiang, Pan Gang and Liu Chang, from the IKCEST secretariat, Hong Tianhua, Deputy Director and Secretary-General of the International Centre on Space Technologies for Natural and Cultural Heritage (HIST), experts in platform development and project management of IKCEST, and other relevant personnel.

Firstly, Yi Jian elaborated the development of IKCEST and the background of the UNESCO Science Centres Coordination Meeting. Then he introduced the preliminary communication between IKCEST and UNESCO and their proposed plan. Attendees discussed the responsibility assignment of the meeting and agreed on the following:

The meeting is tentatively scheduled from May 15 to 18 in Beijing, jointly hosted by UNESCO, Chinese Academy of Engineering and

Chinese Academy of Sciences, jointly organized by IKCEST and HIST and assisted by Chinese National Commission for UNESCO. Directors of UNESCO science centres will be invited and Flavia Schlegel, Assistant Director-General for the Natural Sciences Sector of UNESCO, will be invited to give a speech at the opening ceremony. The agenda of the meeting includes the opening ceremony, exchanges of the work of various UNESCO science centres, the initiation of the plan of an information sharing platform for science centres, passing an action plan, the closing ceremony and a dinner reception.

The invitation and organization of attendees is under the charge of UNESCO secretariat and meeting affairs are jointly undertaken by organizers. IKCEST will provide online meeting registration service on its platform.

Fees of meeting organization and management, venue, equipment, catering and local transportation will be undertaken by organizers. Accommodation and international travel expenses of delegates from category 2 institutes and centres will be covered by themselves; those of delegates from certain developing countries will be taken care of by organizers based on further discussions.

The schedule of the overall preparatory work was also discussed at the meeting.

First video conference for UNESCO Science Centres Coordination Meeting held

The first video conference for the UNESCO Science Centres Coordination Meeting was held On January 20, 2016.

The meeting was attended by Song Dexiong, Executive Deputy Director of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST), Liu Chang, Director of Division of International Cooperation, IKCEST, Hong Tianhua, Deputy Director and Secretary-General of the International Centre on Space Technologies for Natural and Cultural Heritage (HIST), Anne Candau, Chief of the Executive Office (EO) of the ADG/SC of the UNESCO, Han Qunli, Director of the Ecological and Earth Sciences, Guiseppe Arduino, Chief of Section in the Hydrology Division; Rovani Sigamoney, Programme Specialist in Engineering, Yi Zhijun, Science Officer at the Chinese Permanent Delegation to UNESCO, Hans Thulstrup, Programme Specialist of the UNESCO Beijing Office, and other relevant personnel.

Anne Candau first introduced the Natural Sciences Sector of the UNESCO and its category 2 institutes and centres. Then, Liu Chang reported on the preparatory work of IKCEST and HIST for the UNESCO Science Centres Coordination Meeting. Attendees discussed the preparatory plan of the meeting and agreed on the following:

The meeting is scheduled from May 15 to 18



in Beijing, jointly hosted by UNESCO, Chinese Academy of Engineering and Chinese Academy of Sciences, jointly organized by IKCEST and HIST and assisted by Chinese National Commission for UNESCO. Directors of UNESCO science centres will be invited and Flavia Schlegel, Assistant Director-General for the Natural Sciences Sector of UNESCO, will attend the opening ceremony.

Organizers undertake fees of the meeting, including organization and management, space, equipment, catering, local transportation, etc.; attendees cover their own accommodation and international travel expenses; for category 2 institutes and centres of developing countries having difficulties in undertaking their own accommodation fees, organizers may provide assistance as appropriate and the list of category 2 institutes and centres in need of assistance will be provided by the Natural Sciences Sector of UNESCO.



Second preparatory meeting for UNESCO Science Centres Coordination Meeting held in Beijing

On February 18, 2016, the second preparatory meeting for the UNESCO Science Centres Coordination Meeting was held at the headquarters of the Chinese Academy of Engineering.

The meeting was held by the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST), presided over by Song Dexiong, Executive Deputy Director of IKCEST, and attended by Liu Chang, Director of Division of International Cooperation, IKCEST, Hong Tianhua, Deputy Director and Secretary-General of the International Centre on Space Technologies for Natural and

Cultural Heritage (HIST), and other relevant personnel.

First, Liu Chang introduced the progress of the preparatory work after the first video conference with UNESCO secretariat, including the facts that UNESCO secretariat had authorized IKCEST and HIST to undertake the meeting in written form; the date, venue and title of the meeting had been set; pre-notices had been sent; the meeting registration system was under development. Then, in terms of agenda related issues, attendees reached consensus on certain aspects including a draft agenda, topics for different sessions, and so on.

Thai delegation of International Training Centre in Astronomy visited IKCEST

On the morning of February 19, 2016, Song Dexiong, Executive Deputy Director of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST) and Liu Chang, Liu Hongyang and Ma Yingchen, from the IKCEST secretariat met the delegation of the International Training Center

of Astronomy (ITCA) from Thailand. Members of the delegation included Thana Thanacharoenporn, Director of Legal Affairs, Wichan Insiri, Director of Foreign Affairs, Kitinan Nuttakitwanid, Head of Division of Human Resource Management, Sulisa Chariyalertsak and Setthawut Thongmee, Foreign Affairs Officer, of the National Astronomical Research

Institute of Thailand, the supporter of ITCA. The establishment of ITCA was approved by the 38th UNESCO General Conference as a UNESCO category 2 centre in November, 2015. Through this visit, the delegation intended to learn and discuss issues concerning the establishment and preliminary operation of category 2 institutes and centres.

Song Dexiong, Executive Deputy Director of IKCEST, made an opening remark and invited visiting guests to watch a video on the overview of IKCEST. Then, both parties discussed issues which were concerns of ITCA in the form of Q&A. The ITCA delegation put forward a series of questions concerning the structure of category

2 institutes and centres, their relations with UNESCO secretariat and their respective national commission for UNESCO, human resources management and provision of international training. Liu Chang, Director of Division of International Cooperation, IKCEST, answered those questions. After the meeting, both sides exchanged presents and took group pictures.

The ITCA delegation said that they learned a lot from the visit. They would attend the UNESCO Science Centres Coordination Meeting organized by IKCEST in May. They wished the conference a complete success and hoped to strengthen cooperation with IKCEST later on.



Symposium on IKCEST platform development held in Beijing

On March 2, 2016, the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST) held the symposium on IKCEST platform construction at the headquarters of the Chinese Academy of Engineering. The meeting was presided over by Song Dexiong, Executive Deputy Director of IKCEST, and attended by Pan Gang, Gao Xiang, Liu Chang and Fu Zhijie, from the IKCEST secretariat, Fu Rujian and Liu Wei, from the Platform Development Team of IKCEST, Prof. Wang Sunyu and Assoc. Prof. Xie Zheping, from Institute of Education, Tsinghua University, which undertakes the task of Engineering Education Knowledge Service development, Suo Zhihai, Director of the Data and Information Center of Xi'an Jiaotong University, which undertakes the task of Silk Road Science and Technology Knowledge Service development, Cui Hongbing, Dean Assistant of Academy of Urban Strategy and Management and of Institute of Urban Planning & Architecture, Tongji University, which undertakes the task of Intelligent

City Knowledge Service development, Wang Juanle, Deputy Director of Department for Geo-data Science and Sharing, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, which undertakes the task of Disaster RiskReduction Knowledge Service development, and other relevant personnel.

First, Liu Wei introduced the background and current status of IKCEST's platform development. Then, undertakers of various knowledge service systems reported their work scope (research direction), current status of resource building and their building plan in the next three years, listed literature and data resources to be integrated, and put forward a number of development plans. Then, Liu Wei introduced two draft plans of IKCEST sub-centres data integration, which were based on the model and structure of data.gov and CKCEST respectively. Through discussion, attendees agreed that the IKCEST platform would use the first data integration plan. Sub-centres said they would maintain close communication and cooperation



with each other, and strengthen investigation and research into resource demand to avoid repeated building and waste of resources and on that basis, demonstrate their own features. Then, attendees from IKCEST secretariat made speeches on the building of the IKCEST platform and sub-platforms. In the end, Song Dexiong made a summary and arrangements for the direction, targets and following work of the IKCEST platform and sub-platforms. For example, various undertakers should base on “demand and services” to design

sub-platforms, collect resource and develop knowledge services. They should be aware of their service objects, demand for services and means of realizing services. Sub-centres may build the platforms, collect and integrate resources and develop knowledge services based on “information services, academic communication, education and training, and specialized services”. The IKCEST secretariat has built a mail group and WeChat group to strengthen interaction between various institutes and promote platform building.

Newly-elected CAE members visited IKCEST

On March 4, 2016, more than 60 newly-elected members of the Chinese Academy of Engineering (CAE) visited the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST).

Firstly, staff from the IKCEST secretariat briefed the background and missions of IKCEST to CAE members, hoping that CAE members make full use of data resource and knowledge service platform

provided by IKCEST. Meanwhile, IKCEST also encouraged CAE members to give feedback of the service platform to guide future development of IKCEST. Since CAE members are the fundamental users of the service platform thus IKCEST hopes that the service platform provide effective support for the advisory research of CAE members. Then, newly-elected CAE members watched a video on the overview of IKCEST.



Third preparatory meeting for UNESCO Science Centres Coordination Meeting held in Beijing

On March 9, 2016, the third preparatory meeting for the UNESCO Science Centres Coordination Meeting was held at the headquarters of the Chinese Academy of Engineering.

The meeting was presided over by Song Dexiong, Executive Deputy Director of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST), and attended by Liu Chang, Director of Division of International Cooperation, IKCEST, Hong Tianhua, Deputy Director and Secretary-General of the International Centre on Space Technologies for Natural and Cultural Heritage (HIST), and other relevant personnel.

First, Liu Chang introduced the progress of the preparatory work with UNESCO secretariat. UNESCO secretariat made certain adjustments

to the draft agenda proposed by organizers and made some suggestions in terms of the objectives, participants, logistical support, public communication and moderators of the coordination meeting. Meanwhile, they put forward some topics to be discussed later on, including the assignment of the preparatory work, budget, files and materials.

The attendees discussed the feedback of UNESCO secretariat and made amendments accordingly. They agreed on deleting or shortening length of some sessions, adding a closing ceremony as well as several working meetings. The coordination meeting will last for two days. The attendees also discussed topics raised by the UNESCO secretariat one by one and reached a number of agreements.



Second video conference for UNESCO Science Centres Coordination Meeting held

The second video conference for the UNESCO Science Centres Coordination Meeting was held on March 10, 2016.

The meeting was attended by Gifty Dlouhy and Rovani Sigamoney, both Programme Specialists of the Natural Sciences Sector of the UNESCO, Hans Thulstrup, Programme Specialist of UNESCO Beijing Office, Liu Chang, Director of Division of International Cooperation, the International Knowledge Centre for Engineering Sciences and Technology (IKCEST), Liu Hongyang and Ma Yingchen, both Project Managers of IKCEST, Hong Tianhua, Deputy Director and Secretary-General of the International Centre on Space Technologies for Natural and Cultural Heritage (HIST), and Huo Sijia, Project Manager of HIST.

Attendees discussed the progress of the



preparatory work, with particular focus on commonly interested issues and reached a number of agreements, e.g. the Assistant Director-General for the Natural Sciences Sector of UNESCO will attend the opening ceremony. Attendees also decided to hold more video conferences later on to facilitate and guide future preparatory work.



Trainees of Engineering Education and Engineering Management Workshop for Developing Countries visited IKCEST

Secretariat of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST) received trainees of Engineering Education and Engineering Management Workshop for Developing Countries on March 17, 2016. The training workshop was jointly held by Tsinghua University and the International Centre for Engineering Education.

Trainees of the workshop were technical and administrative personnel from colleges, institutes, government of Nigeria, South Africa, Kingdom of Cambodia, Thailand and Pakistan. Staff from the

IKCEST secretariat introduced background, vision, aims, functions, current status and blueprint of IKCEST and displayed a video on the overview of IKCEST to visiting guests. Trainees of the workshop were interested in IKCEST and communicated heatedly with staff from the IKCEST secretariat. Director of Ministry of Transport of South Africa expressed his intention to keep in touch with and cooperate with IKCEST in the future. He also mentioned that it would be very helpful if IKCEST could provide relevant data resource and help them with data analysis and data processing.



Seminar on IKCEST work progress video scripts held in Beijing

The seminar on IKCEST work progress video scripts was held in Beijing on March 23, 2016. The meeting was presided over by Song Dexiong, Executive Deputy Director of the International Knowledge Centre for Engineering Sciences and Technology (IKCEST), and attended by Liu Chang, Liu Hongyang and Ma Yingchen, from the IKCEST secretariat, Fu Rujian, on the Platform Development Team of IKCEST, Assoc. Prof. Peng Ren, from the College of Computer Science and Technology, Zhejiang University, Wang Juanle, Deputy Director of Department for Geo-data Science and Sharing, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, which undertakes the task of Disaster Risk Reduction

Knowledge Service development, and Liu Ying, Secretary of Center for Engineering Education (CEE), Tsinghua University, which undertakes the task of Engineering Education Knowledge Service development.

Firstly, Liu Chang introduced the background and requirements of the new video, as well as the preparation of the first draft of the Scripts. Peng Ren illustrated three different goals of a video, shooting procedure and production cycle. Then, Wang Juanle and Liu Ying listed materials they can provide respectively for Disaster Risk Reduction Knowledge Service and Engineering Education Knowledge Service. Attendees discussed the orientation of the video, content of the video Scripts, shooting plan and schedule.



Seminar on Disaster Risk Reduction meta database development held in Beijing

The seminar on Disaster Risk Reduction meta database development was held in Beijing, on March 25, 2016, which was presided over by Song Dexiong, Executive Deputy Director of the International Knowledge Centre for Engineering Sciences and Technology (IKCEST), and attended by Liu Chang, Director of Division of International Cooperation, IKCEST, Liu Hongyang and Ma Yingchen, both Project Managers of IKCEST, Wang Juanle, Deputy Director of Department for Geo-data Science and Sharing, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Zhu Huazhong, Assoc. Professor from the Institute of Geographic Sciences and Natural Resources Research,

Chinese Academy of Sciences, and other relevant personnel. First, Wang Juanle reported on the development scheme of Disaster Risk Reduction (DRR) meta database. Then, attendees discussed on the aims, contents, direction and feasibility of such work. The attendees reached consensus on a number of issues and determined the direction of future development.

To meet the demand of UNESCO, IKCEST secretariat plans to visit the UNESCO Headquarters in 2016 for in-depth communication with specialists of the Disaster Risk Reduction Division on the development of Disaster Risk Reduction Knowledge Service.



Representatives of Chinese National Commission for UNESCO and UNESCO Beijing Office visited IKCEST

On March 30, 2016, Song Dexiong, Executive Deputy Director of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST) and Liu Chang, Liu Hongyang and Ma Yingchen, from the IKCEST secretariat met the delegation of Chinese National Commission for UNESCO and UNESCO Beijing Office. The visiting guests included Shen Yubiao, Deputy Director of Chinese National Commission for UNESCO; Zong Huawei, from Chinese National Commission for UNESCO; Hans Thulstrup, Programme Specialist of the UNESCO Beijing Office and Du Yang, from the UNESCO Beijing Office.

Firstly, Song Dexiong showed the visiting guests to the headquarters of IKCEST. Then, Liu

Chang introduced the preparatory work for the UNESCO Science Centres Coordination Meeting and displayed the newly-developed official website, registration system and process for the meeting. Attendees discussed issues such as respective responsibilities of IKCEST and HIST and the expected outcomes of the event. Meanwhile, attendees also discussed schedule and reception of Flavia Schlegel, Assistant Director-General for the Natural Sciences Sector of UNESCO, during the UNESCO Science Centres Coordination Meeting. Shen Yubiao suggested that after the closing ceremony of the UNESCO Science Centres Coordination Meeting, Chinese National Commission for UNESCO would hold a joint meeting for all UNESCO category 2 centres in China.



Training session for IKCEST sub-centres held in Beijing

On March 30, 2016, the International Knowledge Centre for Engineering Sciences and Technology (IKCEST) held a training session for IKCEST sub-centres at the headquarters of the Chinese Academy of Engineering. The session was presided over by Liu Chang, Director of Division of International Cooperation, IKCEST, and attended by Liu Hongyang and Ma Yingchen, from the IKCEST secretariat; Fu Rujian, from the Platform Development Team of IKCEST and other personnel from institutes who undertake the task of four knowledge services development.

Firstly, Liu Chang briefed on the background of both the IKCEST and the UNESCO Science Centres Coordination Meeting. She illustrated what the sub-centres should prepare according to the schedule of the meeting. From a technological perspective, Fu Rujian led a discussion on the integration of the general platform and its sub-platforms. In accordance with what would be presented in the video on the work progress of IKCEST, attendees carried out discussions on relevant issues. At last, Liu Chang summarized detailed timeline for sub-platforms development as well as video making.



30th Session of Chinese National Commission for UNESCO held in Beijing

On December 23, 2015, 30th Session of Chinese National Commission for UNESCO was held in Beijing. Hao Ping, Vice Minister of Education and Director of the Commission, Director of the Chinese National Commission for UNESCO; Li Minghua, Director of the State Archives Administration, Tian Lin, Counselor of

the Department of International Organizations and Conferences of Ministry of Foreign Affairs attended this session and delivered speeches.

In his speech, Hao Ping mentioned that the year 2015 marks the 70th anniversary of the establishment of UNESCO and that UNESCO is a platform for China to participate in global governance

and international cooperation in educational, scientific and cultural aspects. UNESCO plays a significant role in promoting the communication of different cultures, stimulating longtime peace and sustainable development. In the future, Chinese National Commission for UNESCO should expand further areas of cooperation, explore new ways of cooperation, elevate the level of cooperation, and enhance the effectiveness of cooperation with UNESCO, thus bringing collaboration between Chinese National Commission for UNESCO and UNESCO to a new level.

Hao ping stressed that it is time for Chinese National Commission for UNESCO to be stimulated and fruitful. He hoped Chinese National Commission for UNESCO should serve economic construction and social development, serve national diplomacy, and serve national overall strategy. Meanwhile, Chinese National Commission for UNESCO has to make full use of domestic and international resources

in order to capture new cooperation perspectives thus strengthen cooperation with UNESCO.

Li Minghua introduced Memory of the World Programme in his speech, stressing the significance of the programme in protection and carrying of documentary heritage, oral history and World Cultural Heritage. China would join hands with UNESCO in that programme.

This session was attended by more than 120 representatives from Ministry of Foreign Affairs, Ministry of Education, Ministry of Science and Technology, Ministry of Culture, Ministry of Housing and Urban-Rural Development, Ministry of Land and Resources, Chinese Academy of Sciences, Chinese Academy of Engineering, Chinese Academy of Social Sciences, representatives from UNESCO centres and research-chairs. Representatives from the International Knowledge Centre for Engineering Sciences and Technology attended this session.

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 Center for Engineering Sciences and Technology (IKCEST) was open to youngsters on March 25, 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 (CKCEST) is a significant part of and vital support for the International Knowledge Centre for Engineering Sciences and Technology (IKCEST).

CKCEST held seminar on expert database development

On 26 November 2015, CKCEST held a seminar on expert database development, which was attended by experts from CKCEST Project Management Office, editorial office of Engineering, Zhejiang University Expert Database Subproject Team, and experts from certain sub-centres. Discussions focused on metadata standards of the expert database, development and data sharing plan of database of senior experts (including academy members) and scholars. Attendees also discussed the need for directional precise recommendation put forward by the editorial office of Engineering.

CKCEST completed 2015 work summary

In accordance with relevant rules of CKCEST, Project Management Office of CKCEST worked out the Plan for CKCEST 2015 Work Summary and, on 25 November 2015, officially issued a notice on annual work summary of CKCEST in 2015. After more than one month's coordination, the 34 project teams involved in the construction of CKCEST in 2015 completed their annual work summaries. Their summaries are integrated into the CKCEST 2015 Work Summary, which was officially printed and issued to all participating institutions of CKCEST and relevant officials.

Application system platform phase 3 launch meeting held in Beijing

On 26 December 2015, CKCEST Project Management Office held the Application System Platform Phase 3 Launch Meeting at the Chinese Academy of Engineering (CAE). The meeting was presided over by Yi Jian, Director of CKCEST Project Management Office, and attended by Chen Zuoning, Vice President of CAE; Yuan Yisheng, Vice President of Inspur Group; relevant officials of CKCEST sub-centres; representatives from contractors and supervisors of Application System Platform Phase 3; and the entire staff of CKCEST Project Management Office. Attendees listened to the work report made by Yuan Yisheng on the construction of Application System Platform Phase 3. Yuan Yisheng also introduced Inspur Group's success stories, experience and personnel development in big data.

After listening to the report made by Inspur Group, CAE Vice President Chen Zuoning made the following comments on the Phase 3 construction. She stressed that the introduction of Inspur Group is for the purpose of accelerating the development of the Application System Platform of CKCEST. As the general

integrator of all components of development of the Application System Platform of CKCEST, Inspur Group should be public welfare oriented, assist the CKCEST Project Management Office in working out the overall plan, top-down design and future operation plan of CKCEST and provide a strong technology support for the project construction. Inspur Group may coordinate and integrate technology research centres, the platform construction team and various participating sub-centres and, on the basis of the previous two phases, achieve unification and standardization of data and services and make useful explorations for the future operation of CKCEST.

CKCEST held meeting for assessment of contractor candidates of new sub-centres in 2016

CKCEST held a two-session meeting in Beijing on the assessment of contractor candidates of new sub-centres to be launched in 2016, with one session held on 7 January and the other on 11 January. The meeting focused on the contractor candidates of the four sub-centres for seismology, fishery, aerospace and testing technology. First, CKCEST Project Management Office gave contractor candidates a general introduction of the project of CKCEST. Then the four contractor candidates - China Earthquake Networks Center, Chinese Academy of Fishery Sciences, China Academy of Aerospace Systems Science and Engineering, and China NIL Research Center for Proficiency Testing – made introductions of their organizations as related to data resources, informatization and services. Attendees assessed the four organizations in terms of resources, technologies, services and support readiness, and their assessments will be summarized as an assessment report which will then be submitted to CAE leaders for review and approval.

Annual work report meeting of information technology professional knowledge service system held in Beijing

On 12 January 2016, Electronic Technology Information Research Institute (ETIRI) held its 2015 annual work report meeting of the Information Technology Professional Knowledge Service System, which was attended by Dai Hao, Chinese Academy of Engineering (CAE) member, staff of CKCEST Project Management Office, relevant experts, and relevant leaders and participants of ETIRI. By developing a basic comprehensive database integrating literature, data and tools based on an organization system, the project team has preliminarily achieved related integration, unified search and visual presentation of resources. Attending experts gave full recognition of their preliminary project outcomes, and discussed future consideration of sub-projects.

Report meeting on CAETS platform development plan held in Beijing

The report meeting on International Council of Academies of Engineering and Technological Sciences (CAETS) Platform Development Plan was held at Conference Room 220 of Chinese Academy of Engineering (CAE) on the evening of 19 January 2016. CAE President Zhou Ji attended the meeting and made an important speech. Shanghai Softline Information Technology Co., Ltd. reported its survey of the English websites of foreign academies of engineering and its work plan in 2016. After demonstrating the demo



version of the new CAETS website, it introduced its work progress plan before the convening of the CAETS annual meeting in September 2016.

CAE President Zhou Ji stressed the significance of CAETS platform. It will help CAE to play a more important role in the framework of CASTS and facilitate communication and cooperation between China's engineering community with external ones. It is hoped that the CAETS platform be developed as a separate project of CKCEST and be given full support. The current CAETS website has limited contents and is updating slowly. The new website is meant to replace the existing one and display advisory reports, publications, event information and all data of foreign academies of engineering and materials of previous CAETS annual meetings. The CAETS platform should be developed by always taking into account its relationship with IKCEST, with a particular emphasis on the construction of the International Engineering Education Knowledge Centre. Efforts should also be stepped up to enhance the Disaster Risk Reduction Knowledge Service development and build it into an exemplary one.

Annual work summary meeting of knowledge organization system held

On 21 January 2016, Institute of Scientific and Technical Information of China (ISTIC) held its 2015 Annual Work Summary Meeting of the Knowledge Organization System, which was attended by members of CKCEST Project Management Office, relevant experts and project implementers. The project team made a summary report on completed tasks, evaluation indicators and budget utilization. The project team has preliminarily completed the construction, maintenance and service platform development of the Knowledge Organization System. It will put the system online soon. Upon launch, the system will provide informatization support for the processing, co-creation and sharing of the knowledge organization systems of the sub-centres.

Seminar on metal, chemical and metallurgical knowledge service system held in Beijing

On the morning of 22 January 2016, the Conference on Metal, Chemical and Metallurgical Professional Knowledge Service System was held at Meeting Room 1 on tenth floor of the New Material Building of China Iron and Steel Research Institute, Wang Haizhou, CAE member; and Song Dexiong, Director of CKCEST Project Management Office attended this seminar. Attendees from the metal materials, chemical engineering and metallurgy sub-centres introduced their work progress in such aspects as resource development, platform development and service preparation, and their work plans in 2016. Song Dexiong gave full recognition of the huge progress achieved by the sub-centres in the recent two years, and thanked CAE Member Wang Haizhou for his personal supervision and instruction on the project. Wang Haizhou hoped that the three sub-centres start their services by providing support for major consulting and research projects of the CAE Division of Chemical, Metallurgical and Materials Engineering. He specifically asked the Metal Materials and Metallurgical Sub-centre to support the "Nuclear Power Materials" project and the Chemical Engineering Sub-centre to support the "Pesticide Industry" project. Wang Haizhou said he would introduce the progress of the project of CKCEST at the standing committee meeting of the CAE Division of Chemical, Metallurgical and Materials Engineering in February and collect needs from other members. Meanwhile, he will get into contact with "Nuclear Power Materials" and "Pesticide Industry" project teams to promote the application of the sub-centres' services.

»» Top News for Big Data Era

Big Data: for “application” , not for “size”

The General Office of the National Development and Reform Commission recently issued the Notice on Organizing and Implementing Big Data Development as a Major Project, highlighting four areas for prioritized support, i.e. demonstrative application of big data, sharing and opening of big data, coordinated development of big data infrastructures, and circulation of data elements. As a resource, data is hardly capable of creating much value if it lies dormant, and has to be processed to be useful. What should we do to maximize the value of big data? First of all, it needs to be made public. Second, it needs to be assessed. Finally, there should be big data talents. Big data has become an important national strategic resource and source of business innovation. Fully tapping into and utilizing big data will be crucial to effective public governance and enterprises' business transformation and upgrade.

Excerpted from Guangming Daily

EU to scrutinize Big Data usage by large internet firms

According to Wall Street Journal's report on 18 January, the European Union is considering whether the way large Internet companies, such as Alphabet Inc.'s Google or Facebook Inc., of collecting vast quantities of data is in breach of antitrust rules. “If a company's use of data is so bad for competition that it outweighs the benefits, we may have to step in to restore a level playing field,” EU's competition chief was cited as saying. The statement indicates an increasing worry from regulatory authorities about big data use.

Excerpted from Global Times



AIE: Big Data marketing services spending in China tops RMB 2 billion

According to a forecast from Analysys International Enfodesk, the big data marketing services spending in China will reach just over RMB 2 billion (US\$ 325.4 million). The year 2015 is expected to be the peak for growth in big data marketing services spending in China, but rates of increase will remain well over 100% through at least 2018, when spending hits RMB 27.66 billion (US\$ 4.50 billion).

Excerpted from eMarketer

ITU members agree on international standard for Big Data

International Telecommunications Union (ITU) has approved the first ITU standard on big data. The international standard details the requirements, capabilities and use cases of cloud-based big data as well as a high-level 'system context' view and its relation with other entities. The big data paradigm provides an efficient, scalable solution to deal with growing volumes of data and uncover patterns or other information capable of making data manageable and profitable.

Excerpted from People's Posts and Telecommunications News

»» Terms on Big Data

Knowledge Organization

Knowledge organization refers to the process of arranging, processing, describing and controlling knowledge, or narrowly speaking, the process of indexing the themes, categories of literature. Knowledge organization standardizes presentation of knowledge units, reveals association of knowledge, and efficiently provides users with useful knowledge or information. According to the CKCEST Overall Implementation Plan (Trial), constructing and sharing Knowledge Organization System (KOS) is required for the demonstration sub-centres and is optional for other sub-centres.



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

Address: No.2 Bingjiaokou Hutong, Xicheng District, Beijing 100088, P. R. China

Tel: +86-10-59300230

Fax: +86-10-59300230

E-mail: information@ikcest.org

Website: www.ikcest.org