

(Draft as of Feb 26, 2016)

A Proposal for CAETS Knowledge Sharing Platform (KSP)

I. Background

As one of the most important academic organizations in the international engineering community, the International Council of Academies of Engineering and Technological Sciences, Inc. (CAETS) is the organization of 26 national engineering academies, which is committed to forstering engineering and technological progress for the benefit of societies of all countries. One of its missions is “Through communication and sharing of the best practices, CAETS member academies are able to draw on the total global experience and expertise of other member academies to address issues at the national level and, collectively, to encourage use of the best engineering and technological advice by key global intergovernmental institutions for the benefit of all peoples of the world.”

In the 2015 Annual Meeting of CAETS held in New Delhi, India, the Royal Academy of Engineering (RAE) and the Chinese Academy of Engineering (CAE) proposed that “knowledge sharing” and “engineering education” should be taken as the top priority of the organization’s initiative of capacity building in order to facilitate sharing of resources between its members, as well as to strengthen cultivation of young engineering talents in the member countries and in many other developing countries and regions especially Africa.

CAE proposed that a CAETS knowledge sharing platform (KSP) be developed on the basis of the existing CAETS website. As the host of International Knowledge Center for Engineering Science and Technology under the Auspices of the UNESCO (<http://www.ikcest.org/>), CAE would like to take this advantage to help develop the web-based KSP under the guidance of CAETS, without pursuing extra funds from CAETS members.

II. Objectives

The sharing platform is designed to leverage such technologies as big data, cloud computing and the Internet to integrate the world’s engineering science information resources and establish a public data and collaborative service network platform, to promote information/knowledge sharing, cooperation and communication between CAETS members, and to offer data/information/knowledge services to engineering, research and education individuals and organizations from various countries, especially the developing countries, so as to provide support for worldwide engineering science development and life

quality improvement and enhance CAETS' international influence.

III. Principles of development

1. Demand driven

Data resource pooling and functional development for the sharing platform will be driven by the actual demands of CAETS and its members, including major issues of concerns and activities of interests of CAETS members, as well as common issues of the world's engineering science development and human life improvement.

2. Expert guidance

The KSP development will be guided by experts from CAETS members (KSP expert committee) through internet communications and, as needed, face-to-face meetings, in order to gradually concentrate on the demands, scope and structure of the KSP, and to improve its performance of service as well.

3. Rational planning

Guidelines for the construction of the sharing platform will be jointly developed. Targets of the KSP will be set, tasks and responsibilities of CAETS and its members, the KSP main developer (CAE), the expert committee and the working group will be identified, and working rules will be established. On this basis, planning documents will be created.

4. Co-developing and sharing

CAETS members will be invited to contribute and publish information in light of the development demands. Should conditions permit, data resources and knowledge applications are preferred to be collected and processed in accordance with the unified standard specifications. The sharing platform will offer services to users worldwide based on user permissions.

IV. Tasks and schedule in 2016

1. Tasks

Data information published in English on the official website of CAETS and portals of its members such as news, academic activities, engineering and sci-tech achievements, consulting/research reports, academician information and publications will be collected, sorted out and integrated. A unified sharing platform framework that supports category navigation, unified search, access and download of the information pooled will be developed. Standards for data sharing between the CAETS platform and websites of the members will be explored for facilitating information sharing on the platform.

2. Schedule

- Stage 1: Analysis of websites of the 26 CAETS members;

- Stage 2: Establishment of the KSP expert committee;
- Stage 3: Common interests identified by expert committee, by exchanging views through email / tele-conference on demands, scope and structure, etc. of the KSP development;
- Stage 4: Demand analysis and system design of the KSP;
- Stage 5: KSP Development / tests running;
- Stage 5: Go-live of the Phase I of the KSP.

V. Organization

1. Expert committee

An expert committee consisting of Secretary-General of CAETS (expert committee chair) and experts nominated by its members will be set up to provide advice and guidance on the development and operation of the KSP.

2. Working group

Under the guidance of CAETS and the expert committee, a working group will be set up by CAE and be responsible for regular communications between CAE and CAETS, organization of meetings, and coordination of the development and operation of the KSP.