



Science Bulletin

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STIC Signs Contract to Acquire EES Electronic Document Database

The NSC's Science and Technology Information Center (STIC) is the sponsor of the "National Library Consortium for Electronic Information Resources", which is also co-sponsored by the Academia Sinica, National Chiao-Tung University, and the Elsevier Company. On September 16 Director General Ching-Lung Liu of STIC signed a contract with the Elsevier Company's senior Vice President, Mr. Roland Dietz, on behalf of the consortium to acquire the Elsevier Electronic Subscriptions (EES) full-text database. NSC Chairman Dr. Jenn-Tai Hwang and National Chiao-Tung University President Dr. Chun-Yen Chang were on hand to watch the signing and give speeches. Other distinguished guests included NSC Vice Chairman Dr. H. Steve Hsieh and the directors of academic libraries throughout Taiwan. An ongoing demonstration of the EES database was conducted during the event.

The Elsevier Company is the world's largest publisher of research literature. It is headquartered in the Netherlands and has been in existence for more than a hundred years. An essential part of making Taiwan an "island of science and technology" will be obtaining the most up-to-date research information, and this will also be a key to raising the standards of scientific work at domestic academic and research organizations. Since in recent years many domestic schools and institutions have been strapped for funds with which to purchase books, periodicals, and other research literature, STIC has promoted the formation of "foreign database acquisition consortia" by academic and research institutions. The

chief aim of these consortia is the joint acquisition of important research information meeting common needs, saving cost and encouraging the sharing of resources. The acquisition of the EES electronic full-text database by a "foreign database acquisition consortium" of academic and research institutions makes the R.O.C. the first nation in Asia to adopt an electronic full-text database system, putting it on a par with such leading nations as the United States. The EES database includes approximately 1,100 authoritative international periodicals in the domains of science, technology, medicine, and social science. The availability of the database will allow domestic scholars and researchers to quickly obtain information from overseas, raising the quality of their research.

At present 28 academic and research institutions have joined the EES Consortium. Persons who wish to consult or print out full-text articles from the most recent overseas periodicals can use their computer network to retrieve, browse, print, or download the information they need, 24 hours a day. The EES Consortium will become a model for "resource sharing" and "cooperative acquisitions," and will help make better use of the nation's information resources, bring about closer integration between different institutions, and avoid duplication of manpower, space, equipment, and database expenditures at different units. Finally, the consortium will relieve the problem of insufficient funds to subscribe western-language periodicals and CD-ROMs. The EES Consortium's manner of operation will be



NSC Chairman, Dr. Jenn-Tai Hwang, gave a speech at the press conference and the ceremony for signing contract to acquire EES electronic document database.

adopted in the future to acquire other full-text databases in the future (such as the IEL, Springer-Verlag, and AP databases) and bibliographic databases (such as the ISI and UMI databases).

The basic privileges of members of the EES Consortium consist of the following:

1. Members will have access to the EES server (located at the Academia Sinica) via the Internet and may retrieve, browse, print, or download articles from all subscribed periodicals free of charge. These services will include unlimited access to electronic periodicals subscribed during the contracted period (1998-2000 or 1999-2001) or subscribed within the last three or four years (1995-1997 or 1995-1998).
2. In the case of periodicals that have

been subscribed outside of a library, online document transmission services (including printout or download) may be obtained at a cost of US\$15 per article.

3. Bibliographic database concerning all EES periodicals (1,100 types) may be retrieved or browsed free of charge.
4. The three-year contract includes a "price protection plan" for periodicals that have already been subscribed. This plan consists of a guarantee that the annual price hike of periodicals, including both paper and electronic versions, will not exceed 9.5%.

The EES Consortium will operate through interface software (Science Server) located on a central server. Members will be spared the expense of purchasing and

maintaining hardware. According to the contract, all teachers, students, and employees of member schools will have access to the consortium's services. However, it will be possible to access the EES server only through campus computer networks, and anyone who wishes to use the system at home will have to first dial up the campus PPP server via a modem. Access to the EES server will not be possible using a regular private ISP dial-up account. The EES Consortium currently features three-year contract periods, and all organizations that join during 1998 and 1999 will enjoy identical privileges. On the other hand, those that join in 2000 or later must individually negotiate contract terms.

NSC Chairman Dr. Hwang Visits Finland and the Baltic States

On September 5 of this year NSC Chairman Dr. Jenn-Tai Hwang successfully completed a ten-day visit to France, Finland, Latvia, and Lithuania. During the trip Dr. Hwang met with the science and technology heads of these countries and promoted bilateral sci-tech cooperation.

Among those accompanying Dr. Hwang were NSC Vice Chairman Dr. Jin-Fu Chang, NSC Planning and Evaluation Dept. Director San-Cheng Chang, NSC International Programs Dept. Director Stephen S.H. Shen. The NSC delegation's visit was in response to invitations by the academies of science of Finland, Latvia, and Lithuania, all of which had signed bilateral science and technology cooperation agreements with the R.O.C. during the previous year. Cooperation conferences between the NSC and its local counterparts were held during the course of the trip, and at these conferences the mechanisms for promoting joint research projects, the key areas of bilateral cooperation, and the coordinators in charge of specific fields were discussed and confirmed. Joint communiques were signed following the conferences with Latvia and Lithuania.

In the future the NSC will cooperate

with Finland in the key areas of low-temperature physics, imaging of brain functions, telecommunications, shipbuilding, biochemistry, biomedicine, pharmaceuticals, and epidemiology. In addition, the NSC will cooperate with Latvia in the

areas of pharmacology, pharmaceutical manufacture, electro-optics, and laser technology, and with Lithuania in the areas of electro-optics, laser technology, and biomedicine.

While on this trip Dr. Hwang met with



NSC Chairman, Dr. Jenn-Tai Hwang (second from the left), signed a protocol with Professor Jans Stradis (second from the right), President of the Latvian Academy of Sciences, and professor Yuris Ekmanis (right), Chairman of the Latvian Science Council.

the education and science ministers of Latvia—Janis Gaigals—and of Lithuania—Kornelijus Pratelis—and exchanged ideas concerning cooperation in the areas of science education and technology development. Dr. Hwang also visited with Dzintars Abikis, chairman of the Latvian national assembly's education and science committee, and Vincas Babilius, Lithuanian minister of economics; these two individuals expressed a high degree of interest in the R.O.C.'s science-based industrial parks and high-tech develop-

ment strategies.

The three Baltic nations of Latvia, Lithuania, and Estonia have gradually developed their scientific research institutions and begun devoting more attention to strengthening international cooperation in science and technology since they left the former Soviet Union in 1991. This trip by the NSC chairman was the first visit to the region by a cabinet-level official of the R.O.C., and the local sci-tech community gave Dr. Hwang a very enthusiastic welcome. In the future cooperation between

the R.O.C. and the Baltic nations will proceed according to the communiqués signed during the visit.

NSC Chairman Dr. Hwang also visited the Toulouse satellite testing and mission control facility of France's space agency—the Centre National D'études Spatiales (CNES). While in France he toured Nice's Sophia Antipolis Country Science Park, and in Finland he visited Nokia's research center in Helsinki.

Taiwan Exhibition and Conference on Assistive Technology for the Vocational Rehabilitation of Persons with Disabilities

The "Greeting a New Millennium" program sponsored by the National Science Council (NSC) in 1998 have the central theme of "humane concern." This program will continue into the next century and is being carried out in conjunction with private organizations, industry, the media, and other government agencies. The program will involve the establishment of the "Implementation Office for Helping Disabled Persons Overcome Social Barriers," and will sponsor the following activities involving assistive technology: (1) international and domestic seminars and conferences associated with the Assistive Technology Exhibition; (2) research projects on assistive technology; (3) promotion of a barrier-free environment in the Science-Based Industrial Park; and (4) study of the feasibility of legislation concerning assistive technologies.

The "NSC Implementation Office for Helping Disabled Persons Overcome Social Barriers" and the "First Social Welfare Foundation" will hold the four-day "Exhibition and Conference on Assistive Technology for the Vocational Rehabilitation of Persons with Disabilities" from December 25 to 28. This event is an acknowledgement of the importance of vocational rehabilitation and a decent quality of life to people with mental or physical disabilities, and also reflects the effort to develop social work manpower resources. The conference portion is being jointly planned by a total of 16 groups,

including private handicapped welfare organizations, academic organizations, and the assistive technology centers established at hospitals with the support of the Department of Health. It is hoped that the event will awaken the people of Taiwan to the importance of assistive technologies to disabled individuals, their families, and industry. Because assistive technologies reduce the cost of disabilities to society and allow the handicapped to enjoy fuller lives and greater self-respect, the event's theme will be "A New Lease on Life."

Since the "First Rehabilitation Equipment Resource Service" was established by the First Social Welfare Foundation in February 1995, it has promoted the benefits of assistive technologies by holding assistive gear exhibitions, providing free consulting and evaluation services, developing simple rehabilitation apparatus, and offering courses and seminars. Assistive technologies play a vital role in the workplace, but they can only have their desired function if they have passed an appropriate functional assessment. It is hoped that the upcoming conference will provide the disabled with an environment and opportunities for "a new lease on life" by creating a comprehensive vocational rehabilitation framework and a conceptual integration of assistive technology usage.

The exhibition will receive support and funding from the NSC and the Disabled

Persons Employment Fund Management Committee of the Taipei Bureau of Labor Affairs. It is anticipated that more than a hundred firms and organizations from Taiwan and abroad will participate. The organizers' greatest hope is that disabled individuals from everywhere in Taiwan will personally visit the exhibition and take part in discussion at the conference. The equipment on display will not be limited to items needed by working adults, but will also include equipment that the elderly and children can use in their daily lives. Thus people of all ages are welcome to come see the exhibition.

Six assistive technology centers have been established in Taiwan so far. Articles 18, 19, 27, and 29 of the newly-revised "Disabled Persons Protection Law" concern the development of assistive technologies and relevant financial support measures. These actions show the increased importance that government and the public place on quality of life for handicapped persons, and foreshadow a thriving market for assistive equipment. The NSC's booth at the upcoming exhibition will introduce the results of assistive technology R&D work sponsored by the NSC's various departments over the past eight years. The NSC hopes that this effort will spur contact between industry and the academic community, and will serve as a bridge between academic research and the needs of disabled individuals.

Frontier Research Projects in Genetic Medicine

Genetic research has made rapid strides over the past few years, and basic research on genes has led to accelerated progress in the field of biotechnology. Genetic research is now making a great impact on the prevention, diagnosis, and treatment of diseases, and has spurred the emergence of a biotechnology industry. The "Promotion of the Biotechnology Industry Program" passed by the 2,443rd Cabinet Meeting included the medical and agricultural biotechnology industries among the focal areas of the government's promotional efforts. The Fifth National Conference on Science and Technology suggested that gene-related researches sponsored by various government departments should be integrated so as to reduce overlapping investment and excessive dispersal of resources. This inter-departmental integration would have the positive effects of boosting progress of scientific researches, stimulating the development of biotechnology research, promoting public welfare, and enhancing the international competitiveness of domestic biotechnology industry.

The NSC and Department of Health began planning this proposal at the end of

1996, and in March 1997 the NSC proposed a preliminary plan for the "National Science and Technology Program on Genetic Medicine and Public Health." On June 25, 1997, the program steering committee approved the selection of Prof. Kenneth K. Wu as principal coordinator and Prof. Wen K. Yang as co-coordinator of the program task force. However, a decision was reached that this program should initially be implemented as a mission-oriented frontier research project rather than a national science and technology program.

The program task force put emphasis on seven major areas including cancer genomics, genetic epidemiology, gene therapy, gene biotechnology, DNA vaccine, genetic toxicology, and ethical, legal, and social implications (ELSI). In late February 1998, public forums announcing the program were held at National Taiwan University and National Cheng Kung University. In addition, letters were sent to approximately 200 research units and 1,200 individual researchers in an effort to solicit research proposals that conformed to the goals of the program and promised significant

breakthroughs. A total of 171 letters of intent had been received by March 10, 1998, and 101 received initial recommendation via a critical review process. A total of 107 detailed proposals had been submitted by investigators, whose letters of intent were recommended by the review panel by May 7, 1998. Each proposal was subjected to critical review by two to three domestic or foreign experts in the same field. A panel of review was conducted on June 11, 12, and 13 at the Academia Sinica. A total of 48 proposals were selected and granted showing an overall approval rate of 27%.

There were 10 projects belong to the category of genomics cancer, 3 genetic epidemiology, 13 gene therapy, 11 DNA vaccines, 2 gene biotechnology, 6 genetic toxicology, and 3 laboratory animal supply and research. Of these projects, 37 will be supported by the NSC, one by the National Health Research Institute, and the remaining ten by the Department of Health. The projects granted by the Department of Health include 4 preclinical and clinical researches on gene therapy, 5 on therapeutic DNA vaccines for hepatitis B, and 1 gene biotechnology.

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