

SCIENCE BULLETIN

National Science Council
106 Ho-Ping East Road, Sec. 2,
Taipei, Taiwan, Republic of China



The National Science Council Approves New Research and Development Proposals

At the Council meeting on April 26, 1990, the NSC discussed and approved two new research and development proposals: "Up-, Mid-, and Down-stream Research and Development Plan for the Biological and Pharmaceutical Industries" and the second stage of the "R.O.C. Opto-electric Science and Technology and Industry Development Plan".

The NSC pointed to the gradual growth of a system to help support the development of domestic biotechnology and related industries. However, future development in this field to match the needs of society will be difficult to coordinate. Effective administrative channels of communication must be developed between academic, governmental, and industrial circles in order for these groups to be able to complement each other. With greater cooperation, operations can be divided more efficiently leading to improvements in technology and production thus resulting in greater economic efficiency and an improved standard of living.

Current development in the field of biotechnology is aimed at developing a firm foundation in the internationally important field of glutamic acid. Research is being carried out by the appropriate organizations in the areas of 1. glutamic acid, 2. lysine, 3. aspartic acid, 4. phenylalanine, 5. tryptophan, and 6. threonine.

As was recommended by the ninth and tenth sessions of the Science and Technology Advisory Council to the Executive Yuan, (Branch of the Central Government), pharmaceutical technology and industry has been designated a priority field. The National Development Seminar and

the Conference for the National Administration of Sanitation and Public Health were both convened since then and have agreed that developmental efforts should be strengthened as soon as possible. The new patent law set by the government has included pharmaceutical products. Pharmaceutical companies are now responsible for conducting their own research and development towards new products.

However, the development of new medications is a complex problem. Based on a careful evaluation of current domestic technology, manpower, and financial resources, it is generally agreed that preliminary research should be conducted in specific strategic areas in order to grasp the needs and functions of those involved in up-, mid-, and down-stream aspects. Afterwards, systematic plans should be developed in order to be able to coordinate the program. To meet the technological requirements of pharmaceutical production, appropriate training courses are being planned to cultivate necessary personnel and experts are being recruited to fill the existing gaps. It has also been recommended that the government set a system of laws to regulate the development of new medications thus creating a healthy, stable, long-term competitive pharmaceutical market which is recognized worldwide.

Major focuses for development have been set initially as 1. exploratory research, 2. research on medical preparations, 3. research on the effectiveness of medications, 4. research on the safety of medications and on toxicology, 5. laboratory research animals, 6. clinical research, and

7. legal considerations. All relevant organizations will be urged to help coordinate in the promotion of these efforts.

The National Science Council explained the program to develop opto-electric technology and industry.

The first stage of the R.O.C. opto-electric science and technology and industry development program began in 1986. Since then, through mutual cooperation of academic, research, and industrial organizations, a firm foundation has been established. Opto-electric science and technology is vital to the development of domestic industry, basic science, national defense, medical technology, and environmental protection. In order to catch up with advanced countries, research organizations, institutes of higher education, and industrial circles have worked together to draw up a draft for the second stage of the "R.O.C. Opto-electric Science and Technology and Industry Development Program". The second stage is designed to carry the R.O.C. from July 1991 through June 1994.

The program has several goals: 1. combine national resources, raise the level of competition in opto-electric technology, and speed up the development of the opto-electric industry; 2. promote the greater use of opto-electric technology in traditional industries; 3. apply opto-electric technology to improve medical and public health fields to raise the standard of living; and 4. strengthen basic opto-electric research, accelerate the training of skilled personnel, and attain international standards.

Record of Major Science and Technology Activities in the R.O.C. during 1989

JANUARY

- * NSC-sponsored seminar on ROC-South Africa societal evolution and policy changes
- * NSC-sponsored seminar on heredity and genetic diseases
- * The fourth NSC-sponsored seminar on science education and academics in the R.O.C.
- * Assembly to present 1988 fiscal year results of NSC-sponsored large-scale hazard mitigation research
- * Press conference regarding NSC-sponsored mid-term plans for the designated twelve major science and technology areas
- * NSC-sponsored seminar to discuss large-scale plans to study the Kuroshio
- * The first meeting of the International Oceanographic Technology Council (held on January 23rd in Hawaii, U.S.A.)
- * The 16th meeting of the Guidance Council for the Development of Synchroradiation
- * Sino-American forest biotechnology and molecular biology seminar (sponsored by the Council of Agriculture)
- * International seminar on plants and illumination (sponsored by the Council of Agriculture)
- * Seminar on the use of new materials and new technology in packaging (sponsored by the Union Chemical Laboratories of the Industrial Technology Research Institute (ITRI))
- * Seminar on testing the reliability and analyzing the cause for breakdowns of electronic parts (sponsored by the Electronics Institute, ITRI)
- * Seminar on the current status and future potential of domestic production of integrated circuits (sponsored by the Electronics Institute, ITRI)
- * Seminar on CAD/CAM designed specifically for wire cutting and nesting (sponsored by the Mechanical Institute of the ITRI)
- * Seminar on the development and application of CAD/CAE/CAM in the design of plastic models (sponsored by the Mechanical Industry Research Laboratories, ITRI)
- * 1989 Seminar on the administration and disposal of hospital waste products (sponsored by the Energy and Mineralogy Institute,

ITRI)

- * The "Agreement to Transfer Technology, on Model A Robots" signed by the Mechanical Industry Research Laboratories (MIRL) of the ITRI and Ta Tung Company
- * "Cooperative Agreement to Develop Thick-Film Electronic Materials" signed by the MIRL, ITRI and the Hsin-Tai Electronic Company
- * Assembly to present the results of work towards the development of opto-electric organic light-sensitive materials (carried out by the ITRI)
- * Seminar on policies and strategies to combat air pollution (sponsored by the Environmental Protection Administration)
- * Completion of a scaled-down, IC card-type model telephone for prepaid phone calls (developed by the Telecommunications Research Institute of the Ministry of Communications)
- * Completion of a system to recognize handwritten Chinese characters over phone lines (developed by the Telecommunications Research Institute of the Ministry of Communications)
- * Completion of microcomputerized automatic postal boxes (developed by the Postal Service Management and Technology Research Institute of the Ministry of Communications)

FEBRUARY

- * Official commencement of design work on the long-term follow-up plan for domestic automation (promoted by the Science and Technology Advisory Group, Executive Yuan)
- * District seminars held by the Science and Technology Advisory Council to the Executive Yuan to promote "Community Planning to Optimize Technology Resources"
- * Seminar on "Intellectual Property Rights — Protection of Business Secrets" (sponsored by the Science and Technology Advisory Group, Executive Yuan)
- * "Trial Plan to Introduce Vocational Training on the Use of Industrial Robots" signed by the Employment and Vocational Training Administration and the Industrial Technology Research Institute
- * "Sino-Austrian Science Cooperation Memorandum" signed by the NSC and the National Science Foundation of Austria

- * "NSC Large-scale Environmental Protection Plan for Fiscal Year 1988. — Seminar to Discuss Research Results on the Problem of the Tamsui River System"
- * "1989. Winter Youth Camp — Astronautics Study Group" held at National Central University
- * Seminar on the recent development and market potential of FRP molding (sponsored by the Chemical Engineering Institute, ITRI)
- * Seminar on freon (sponsored by the Union Chemical Laboratories, ITRI)
- * The Union Laboratories, ITRI and PRIM signed a cooperative research.
- * "Cooperative Agreement on Automatic Recognition System of Hole Placement Printed Circuit Boards" signed by the Mechanical Industry Research Laboratories, ITRI and Kuo-juei Company.
- * Assembly to present a textile spindle control system (sponsored by the Union Chemical Laboratories, ITRI)
- * Second seminar on technology to control disease transmission (sponsored by the Environmental Protection Administration)
- * Completion of the development of automated fee collection for the number of strokes to Chinese characters and the editing of the software collection, granted R.O.C. copyrights (carried out by the Telecommunications Research Institute of the Ministry of Communications)
- * The completion of the installation of underground air ducts, granted R.O.C. patents (carried out by the Telecommunications Research Institute of the Ministry of Communications)
- * The completion of the development of district networking and exchange network transfer systems, granted R.O.C. copyrights (carried out by the Telecommunications Research Institute of the Ministry of Communications)
- * The completion of an internal temperature control system for underground downhole, granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)

MARCH

- * NSC-sponsored "Assembly to Present the Preliminary Results on TAMEX Follow-up Research"

- * The third NSC-sponsored seminar on basic research on cognition and learning.
 - * NSC-sponsored Sino-Japanese seminar on herbal pharmacology
 - * NSC-sponsored seminar on dengue fever
 - * Training course on the operation and maintenance of emergency Kerosene generators in nuclear power plants (sponsored by the Atomic Energy Council)
 - * The council to confer "Outstanding Scientist" grants completed deliberations and chose seven individuals and five projects as recipients: C.T. Shih, M.H. Lei, T.F. Shen, T.N. Wang, H.L. Wang, P.H. Cheng, and J.F. Hong
 - * Exhibition of achievements in flowering plants held at the CETRA Exhibition Hall at Sung Shan Airport from March 26 to 29
 - * Seminar on breeding environment and the elimination of fishy odors (sponsored by the Council of Agriculture)
 - * "International Seminar on the Care and Preservation of Mountain slopes" held at National Chung Hsing University in Taichung
 - * Seminar on organic waste catalyst incineration technique (sponsored by the Union Chemical Laboratories, ITRI)
 - * Seminar on the application of geological engineering techniques (sponsored by the Energy and Resources Laboratories, ITRI)
 - * Assembly to present research results on hard disk drives (carried out by the Opto-electronics and Systems Laboratories, ITRI)
 - * "The 1989 International Environmental Control and Protection Technology Exhibition" held at the CETRA Exhibition Hall
 - * The completion of multi-function, free-moving telephone exchange equipment, granted an R.O.C. patent (carried out by the Telecommunications Research Institute of the Ministry of Communications)
 - * Assembly to announce consignment research projects in communication science and technology for fiscal year 1990 (sponsored by the Science and Technology Advisory Office of the Ministry of Communications)
 - * "1989 Seminar on Telecommunication Science and Technology" (sponsored by the Telecommunications Research Institute of the Ministry of Communications)
- APRIL**
- * Evaluation meeting of the Telecommunications Technology Re-

- search Evaluation Task Force of the Science and Technology Advisory Group, Executive Yuan held April 24 through 28
- * 1989 Sino-Korean seminar on telecommunications technology held on March 20 and 21 at the Central Library and the Telecommunications Research Institute both in Taipei
 - * Seminar on the application of agricultural climate resources in the Taiwan area held on April 25 and 26
 - * Assembly to present research results on poultry processing held on April 20 (sponsored by the Council of Agriculture)
 - * NSC-sponsored seminar on new methods of gene transfer
 - * NSC-sponsored seminar on the applications of the electron microscope in the medical field
 - * NSC-sponsored 1989 international seminar on analytic chemistry
 - * NSC-sponsored seminar on chemical dynamics and atmospheric chemistry
 - * Seminar on toxic testing technology and its applications (sponsored by the Environmental Protection Administration)
 - * Assembly on the application of ultra-violet solid printing ink preparations (sponsored by the Union Chemical Laboratories Institute, ITRI)
 - * Assembly to present research results on low-pollution MDI-system PU (carried out by the Union Chemical Laboratories, ITRI)
 - * Completion of research and development on "Phonetic Recognition and Control IC's" and "PCM Remote Control" (developed by the Electronics Research and Service Organization, ITRI)
 - * Completion of research and development on a cable splicing work frame, granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * Completion of research and development on a cutter for communication cables, granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * The first aerospace industry meeting (sponsored by the Aerospace Industry Promotion Task Force) to introduce domestic production capabilities and inter-

national market potential to local and foreign manufacturers

MAY

- * The Eleventh Science and Technology Conference of the Executive Yuan held in Taipei from May 1 to 6
- * Seminar to discuss the results of the NSC-sponsored "1989 Environmental Protection Education Research Program"
- * NSC-sponsored seminar on the KEEP data base and meeting of the WOCE Executive Council
- * Seminar to discuss the results of the NSC-sponsored "1988 Engineering and Applied Science Research Program"
- * NSC-sponsored international seminar on the structure and function of protein nucleic acid
- * Seminar on the evaluation of environmental effects (sponsored by the Environmental Protection Administration)
- * The fourth seminar on environmental analytic chemistry (sponsored by the Environmental Protection Administration)
- * Seminar on microanalysis, (sponsored by the Union Chemical Laboratories, ITRI)
- * Seminar on water treatment technology for anaerobic microbe (sponsored by the Union Chemical Laboratories, ITRI)
- * Seminar to evaluate the qualities of latex (sponsored by the Union Chemical Laboratories, ITRI)
- * "1989 International Seminar on the Technology, Systems, and Application of VLSI Circuits (sponsored by the Electronics Research and Service Organization, ITRI)
- * Seminar on high-resolution television technology (sponsored by the Electronics Research and Service Organization, ITRI)
- * The second seminar on coal utilization and control (sponsored by the Energy and Resources Laboratories, ITRI)
- * Seminar on the disposal of hospital waste materials and waste water (sponsored by the Energy and Resources Laboratories, ITRI)
- * Seminar on the development and application of a frequency-changer (sponsored by the Energy and Resources Laboratories, ITRI)
- * Seminar on sound recognition and control technology (sponsored by the Mechanical Industry Research Laboratories, ITRI)
- * Assembly to present design results on the strength of hard boxing materials (sponsored by the Union Chemical Laboratories, ITRI)
- * Assembly to present the result of

development work on umbrella parts (carried out by the Union Chemical Laboratories, ITRI)

- * Assembly to present the results of development work on the use of PU-system and latex materials for shoe soles (carried out by the Union Chemical Laboratories, ITRI)
- * Assembly to present the results of development work on eyeglass technology and materials (carried out by the Union Chemical Laboratories, ITRI)
- * The "Position Multiplier DTMF Producer", granted a patent from the National Bureau of Standards (developed by the Electronics Research Service Organization, ITRI)
- * The "Automatic Placement and Retrieval Head for Surface Mounting Parts", granted a U.S. patent (developed by the MIRL, ITRI)
- * A Hybrid Microwave Filter Fabricated with the Combination of Semicoaxial Resonator and electric resonator (developed by the Telecommunications Research Institute of the Ministry of Communications)
- * Completion of development work on a computerized identification system of signature seals ("chops") for telephone customers (developed by the Telecommunications Research Institute of the Ministry of Communications)
- * Circulating exhibition of communications science and technology research results (sponsored by the Ministry of Communications)
- * NSC-sponsored science and technology activity exhibition to celebrate the thirtieth anniversary of the establishment of the Council
- * Completion of the Synchrotron Radiation Program Design Handbook (drawn up by the Synchrotron Radiation Research Center)
- * Technical Advisory Group Meeting and Seminar of International Piping Integrity Research Group (jointly sponsored by the Atomic Energy Research Institute, Taiwan Electricity Company, the Atomic Energy Council, and the Nuclear Energy Society, ROC)

JUNE

- * The second seminar on ocean plant life models (sponsored by the Harbor Technology Research Institute of the Ministry of Communications)
- * The third seminar on harbor planning (sponsored by the Harbor Technology Research Institute of the Ministry of Communications)
- * Completion of development work

on oracle-bone scripture translation equipment, granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)

- * Completion of development work on a new round anti-dust telephone wire connection box, granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
- * Seminar to discuss policy on agriculturally related tuberculosis (sponsored by the Council of Agriculture)
- * Seminar on the circulation of water used for breeding purposes (sponsored by the Council of Agriculture)
- * Seminar on poultry science and technology (sponsored by the Council of Agriculture)
- * NSC-sponsored seminar to discuss the preliminary results of the Taiwan area meso-scale laboratory research program
- * NSC-sponsored seminar on high-performance AC operations and computer analysis
- * NSC-sponsored seminar on cancer-fighting medications mechanism.
- * NSC-sponsored 1989 seminar on physics and chemistry education in vocation colleges
- * NSC-sponsored 1989 seminar to discuss the results of the science education research project
- * International seminar on cancer (sponsored jointly by the NSC, the Academia Sinica, and the Department of Health)
- * Seminar on chemical industry resource conservation technology and applications (sponsored by the Union Chemical Laboratories (UCL), ITRI)
- * Seminar on reactions to processing of altered nylon (sponsored by the UCL, ITRI)
- * Seminar on separation technology (sponsored by the UCL, ITRI)
- * Seminar on chemical engineering models of manufacturing trends and control system designs (sponsored by the UCL, ITRI)
- * Assembly to present the results of research and guidance in emulsion (carried out by the UCL, ITRI)
- * Assembly to present the results of research on the alteration of plastic to improve impact resistance (sponsored by the UCL, ITRI)
- * Seminar to explain technology used in the "laser printer motor" (sponsored by the Opto-electric and Systems Laboratories, ITRI)
- * Completion of the draft of the

"Production Automation Program" (drawn up by the Science and Technology Advisory Group to the Executive Yuan)

JULY

- * Sino-American seminar to promote agriculture (sponsored by the Council of Agriculture)
- * 1989 seminar to discuss the development of applications of isotopes (sponsored by the Atomic Energy Research Institute)
- * 1989 meeting of the Research Council for Economic Planning and Development held in Taipei
- * The first meeting of the X-ray research advisory council
- * The seventeenth meeting of the guidance council for the synchro-radiation program (sponsored by the Synchroradiation Research Center of the Executive Yuan)
- * Research on forecasting to help control destructive flood waters and tides due to typhoons (promoted by the Science and Technology Advisory Group to the Executive Yuan)
- * NSC-sponsored seminar on the design and composition of pharmaceutical products
- * NSC-sponsored 1989 summer seminar at the Mathematics Research Promotion Center
- * The second NSC-sponsored planning seminar on the observation of worldwide oceanic currents
- * NSC-sponsored open house and seminar on national planning and development (science and technology planning and development) for 1988 graduate research students
- * Workshops on DNA Sequencing Techniques (sponsored by the Academia Sinica)
- * Third national seminar on automation technology (jointly sponsored by the Ministry of Education and other relevant agencies)
- * The ROC 1989 exhibition of automation machinery
- * "Chinese Multifont Recognition System" granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
- * "The Method of Inductive Wire Identification," granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
- * Promotion exhibition transfer equipment technology for service to individual uses of digital network (sponsored by domestic research and business organizations)
- * Seminar on TAB and MLC tech-

- nology (sponsored by the Electronics Research and Service Organization, ITRI)
- * "Assembly to Present Results of Research on New Alloys" (sponsored by the Materials Research Laboratories, ITRI)
 - * "Surface Mounting Technology Processing Diagnosis Expert System, V1.0" granted a copyright license from the Ministry of the Interior (drawn up by the Electronics Research and Service Organization (ERSO), ITRI)
 - * "ITRI ADAPTER VGA BIOS, V1.0" granted a copyright license from the Ministry of the Interior (drawn up by the ERSO, ITRI)
 - * "TESTG V2B.03, CADDIFC V2A.01, E2C V3A.01, ERSO-ROAM V1A.01, ERSO-GRPC V1A.01, STAFG LA.01, E2F 3A.01: A Collection of Computer Programs" granted a copyright license from the Ministry of the Interior (drawn up by the ERSO, ITRI)
 - * "ERSO-PGVA V1A.01, ERSO-DRA V1A.01 ERSO-CIFTOAPL V1A.01 granted a copyright license from the Ministry of the Interior (drawn up by the ERSO, ITRI)
 - * ROC's Laboratory Accreditation Program Draft had been made.
- AUGUST**
- * Experts in the field of developing medication for liver diseases invited by the Science and Technology Advisory Group to the Executive Yuan
 - * 1989 NSC-sponsored summer study group for gifted university science students
 - * Science and technology sub-committee meeting of the NSC-sponsored tenth conference on Sino-South Africa economic and technological cooperation
 - * International academic seminar on fibrinogen, thrombosis, coagulation, and fibrinolysis (sponsored by the Academia Sinica)
 - * Seminar on Molecular Dynamic (sponsored by the Academia Sinica)
 - * Seminar on recent economic history of Chinese agricultural communities (sponsored by the Academia Sinica)
 - * Cooperative research in telecommunications science and technology (jointly promoted by the Ministry of Communications and the NSC)
 - * "A Modified Wire Attachment Consisting of a Cable Tie with Nail" granted an R.O.C. patent (developed by the Telecommuni-
- cations Research Institute of the Ministry of Communications)
 - * Seminar on "Acoustic Emission Application to Cutting Monitoring and Measurement (sponsored by the Mechanical Industry Research Laboratory (MIRL), ITRI)
 - * Sino-Japanese seminar on optoelectric materials (sponsored by the Opto-electrics and System Laboratories, ITRI)
 - * Seminar to discuss technology to relieve electricity rationing (sponsored by the Energy and Resources Laboratories, ITRI)
 - * The second international conference on plastics (sponsored by the UCL, ITRI)
 - * Assembly to explain the program on electronic product design and manufacturing procedures (sponsored by the Research and Service Organization (ERSO), ITRI)
 - * Inauguration of the "Metal Electrolytic Carving Laboratory (planned by the MIRL, ITRI)
 - * "General Design of a Printed Chinese Character Recognition System, V1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * 1989 Taipei International Chemical Industry Fair
 - * The first special exhibit on the surface treatment industry and pollution control
- SEPTEMBER**
- * Training seminar on applications of materials for nuclear generators (sponsored by the Nuclear Energy Research Institute)
 - * Seminar to evaluate agricultural promotion work (sponsored by the Council of Agriculture)
 - * Joint conference of the boards of directors of the Sino-German Socio-economic Assistance Council (sponsored by the Council of Agriculture)
 - * Seminar on fruit juice processing technology (sponsored by the Council of Agriculture)
 - * Seminar on the domestic problems of forest preservation and water reservoirs (sponsored by the Council of Agriculture)
 - * The NSC designs the establishment of a data center for radiation dosages received by employees of domestic radiology and radiation industries
 - * NSC-sponsored third Sino-Korean oceanography seminar
 - * NSC-sponsored seminar on optoelectric technology development
 - * Seminar on tribal relations and regional development (sponsored by the Academia Sinica)
- * "A device which can automatically print a variety of typesets and resolutions of Chinese characters" granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * Seminar on machine design analysis and model application technology (sponsored by the Mechanical Industry Research Laboratories, ITRI)
 - * 1989 ROC seminar on electronic part and material technology and electric circuit technology (sponsored by the Opto-electronics and Systems Laboratories, ITRI)
 - * Seminar on trouble-shooting of electronic parts (sponsored by the ERSO, ITRI)
 - * 1989 seminar on computer technology (sponsored by the ERSO, ITRI)
 - * Exhibition on industrial safety, sanitation, and pollution control
 - * Completion of development work on ERSO x486/AT and x486/MCA high performance 32-bit computer system (carried out by the ERSO, ITRI)
 - * Digital sketching Board" granted a U.S. patent (developed by the ITRI)
- OCTOBER**
- * Seminar on interior air pollution and environmental sanitation (sponsored by the Environment Protection Administration)
 - * NSC-sponsored sixth ROC-South Africa joint seminar on medical science: Seminar on innate abnormal metabolism
 - * International seminar on the transmission of nerve signals (sponsored by the Institute of Bio-medical Science, Academia Sinica)
 - * "Automatic Traffic Acquisition System" granted a domestic patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * "Electromagnetic lock device for open and close manhole cover" granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * Seminar on electrophoretic technologies and applications (sponsored by the Materials Research Laboratories, ITRI)
 - * "TP4-Based Netbios Meulator, V1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "TBIS, V1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO,

- ITRI)
- * "A Real-time Multi-tasking Kernel for ISDN Terminal Equipment, v1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "ESP-200, V2.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "CCITT ISDN LAPD Protocol for Terminal Equipment, v1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "EDRIVER, DIEST, V1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "TCP/IP, V1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "On-line Chinese Recognition System" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "Linear PCB Information Management System, V2.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * Members of the Science and Technology Group, Executive Yuan arrive in Taiwan for mid-term consultation
 - * Seminar on reinforced concrete anti-corrosion technology (sponsored by the Ministry of Communications)
- NOVEMBER**
- * Second academic meeting and members meeting of the R.O. C. Audio Association (sponsored by the Environmental Protection Administration)
 - * 1989 (the tenth) Sino-Japanese Seminar on engineering technology: meeting of the environmental protection subcommittee (sponsored by the Environmental Protection Administration)
 - * NSC-sponsored Sino-American seminar on long-term changes in air quality and on the effects on climate
 - * Third NSC-sponsored Sino-German seminar on pharmacology
 - * Eleventh NSC-sponsored Sino-Saudi conference on economic and technological cooperation
 - * NSC-sponsored 1989 Sino-American seminar on grinding and lubricating
 - * Seminar on the molecular biology of human genetic diseases (sponsored by the Institute of Biomedical Science, Academia Sinica)
 - * "Changes in the structure of a modified wiring nail" granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * "CMOS memory equipment for an IOC exchange" granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * "Duty service personnel evaluation system" granted an R.O.C. patent (developed by the Telecommunications Research Institute of the Ministry of Communications)
 - * Seminar on technology and application of Diversified integrated circuits (sponsored by the ERSO, ITRI)
 - * Assembly to present and discuss the results of research on low-pollution MDI PU (sponsored by the UCL, ITRI)
 - * Seminar on domestic industrial measures to deal with worldwide electrical usage and temperature changes (sponsored by the Center for Measurement Standards, ITRI)
 - * Seminar on technology and applications of optic parts (sponsored by the Opto-electronics and Systems Laboratories, ITRI)
 - * "MAIS-II, V2.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "The Basic Input and Output System for the PC/AT ISDN S-Interface Card, V1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * "SPARC MB86900 Combined Language Editor, V1.0" granted a copyright license from the Ministry of the Interior (written by the ERSO, ITRI)
 - * Seminar to explain laser printer technology (sponsored by the Opto-electronics and Systems Laboratories, ITRI)
 - * Evaluation of 1991 important science and technology programs of the Executive Yuan
 - * Sino-Japanese seminar on engineering technology
 - * Technical Review Board for Telecommunications Research Development Meeting held by the Science and Technology Advisory Group to the Executive Yuan
 - * Seminar on Doppler radar data analysis and applications (sponsored by the Flight Service Headquarters of the Civil Aeronautics Administration)
 - * ROCATSEA Assembly Meeting
 - * Seminar on the 21st century high-speed railway (sponsored by the Transportation Research Institute of the Ministry of Communications)
 - * Flow induced vibration workshop (sponsored by the Atomic Energy Council)
 - * Seminar on the current status and future expectations of developments in advanced nuclear fuel (sponsored by the Atomic Energy Institute)
 - * International seminar on adjusting horticulture seasons (sponsored by the Council of Agriculture)
 - * Seminar on water collection techniques based on water source and geography (sponsored by the Council of Agriculture)
 - * Seminar on irrigation technology and administration (sponsored by the Council of Agriculture)
 - * Seminar on the protection of natural ecosystems (sponsored by the Council of Agriculture)
 - * International seminar on salmon and trout (sponsored by the Council of Agriculture)
 - * Second seminar on the control of diseases of wild animals (sponsored by the Council of Agriculture)

(Continued on next issue)

統一編號：

022165790058