

ностью оборудованное за счет иностранных инвестиций.

Идет процесс увеличения количества кафедр, участвующих в международном сотрудничестве. На сегодняшний день на 38 кафедрах в различной форме установлено сотрудничество с зарубежными организациями. Особенно можно отметить кафедру органической химии и технологии органического синтеза (зав. каф. Филимонов В.Д.), кафедру оптимизации систем управления (зав. каф. Ямпольский В.З.), кафедру электрических систем (зав. каф. Хрущев Ю.В.), кафедру радиотехники (зав. каф. Ройтман М.С.), кафедру геологии и разработки нефтяных месторождений (зав. каф. Волощук Г.М.), кафедру атомных и тепловых электростанций (зав. каф. Беляев Л.А.), кафедра автоматизации и роботизации в машиностроении (зав. каф.

Гольдшмидт М.Г.), Северский технологический институт (ректор Жиганов А.Н.), Сибирский сертификационный центр при ТПУ (Рузаев Е.Н.).

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n TPU has been developed and realized the targetoriented program of development of international cooperation. The global purpose of the program is the integration of the university in an international division of labour on the training of the experts and production of new knowledge, and also development and increase of the level of educational services. As a basis of the program of international cooperation development the following methodological principles are taken:

**На фото:** делегация ТПУ на приеме у ректора Дзиньлинского университета, г. Чань-Чунь, КНР, 1996 Photo: delegation from TPU received by the rector of Tsing Ling University, Chang Chung, PRC, 1996

- the development of international cooperation of the higher school institution is considered as part of the common process of integration of higher school and science of Russia in an international division of labour on the training of the experts and on production of new knowledge:
- formation at the university of an infrastructure for international cooperation;
- use of scientific and methodical potential of the university in training of the experts for foreign countries;
- use of educational and scientific potential of foreign higher schools, enterprises, firms, centers of science to increase the quality of the experts training;
- development and creation of conditions for the expansion of external economic activity of the university and increase of its efficiency;
- providing expansion of a circle of students, teachers and scientific workers, that have good command of foreign languages;
- increase of scale and variety of forms of international relations of the university.

The realization of these directions provides for the performance of the following tasks:

- inclusion of the university in the program of international cooperation of Ministry of education of Russia, in programs of international organizations and foundations:
- organization of training of the experts with higher education for foreign countries;
- substantial growth of the number of students and postgraduates leaving for abroad on for practical study, and teachers and scientific workers to take refresher courses;
- creation of joint educational and scientific enterprises, participation

in the research international programs;

- realization of measures on international accreditation of the university;
- organization of remote electronic training abroad;
- providing of telecommunication access of the university to international databanks and knowledge, to international information networks of education.

The international cooperation at the university is carried out according to the target-oriented program within the framework of the Complex program of development of TPU. There is a process of search and introduction in educational process of advanced achievements, positive experience of foreign universities with the purposes of training of the experts. At the university are organized and work Russian-American, Russian-German, Siberian-Chinese, Russian-Korean centers, and the business-center. Several tens of students and teachers of the university were have taken special courses abroad - in the USA, England, Germany, and South Korea. The university has an opportunity to participate actively in international scientific educational programs through the centers. A series of measures on presentation of Tomsk polytechnical university abroad is carried out. Scientists of TPU actively participate in various international

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forums, congresses and conferences. There are joint ventures of the university with foreign firms. The international laboratory "Education, training of personnel and promotion of business" acts in TPU. The experiment with Californian University (USA) on distant electronic learning has been carried out. The university is connected to FIDO-Net (free-of-charge non-commercial network of international communication) and to Internet.

The cooperation is carried out on three priority directions:

- American (USA);
- European (Germany, Great Britain and France);
- East Asian (China, South Korea, Japan).

Relations with American universities have become closer and more extensive. There are special relations between TPU and Ohio university. The chief of international programs of this university,

Chet Hansen, is elected honorary professor of TPU. There are interesting and perspective contacts with one of the oldest and the most prestigious in America Georgetown university (Washington, DC).

The cooperation with universities

of Germany is caused by presence in Tomsk of the well-organized German community. The Russian-German center of TPU accumulates and directs this aspect of international cooperation of the university, carries out the continuous interaction with German service of academic exchanges and German embassy.

Scientific relations of the department of fundamental education with French colleagues are actively developing. The majority of the university's French teachers have trained in France. French embassy together with the Administration of the Tomsk area promotes making such contacts.

**На фото:** группа профессоров ТПУ с послом России в Корее, 1997 **Photo:** a group of TPU professors and Ambassador of Russia in Korea, 1997 There are traditionally good relations with South-Korean University in Ulsan. The cooperation with Ulsan University develops on a tripartite basis, together with Novosibirsk state technical university. In 1997 the three-sided scientific conference was held. One of the most significant events of the last year was the signing of the contract on co-operation with the university of city Hiroshima (Japan).

It is necessary to accentuate the changes in international cooperation of the university associated with scientific and technical progress. The connection of the university to international information networks (Internet, Intranet etc.) gives new possibilities in the field of international cooperation, facilitates and makes cheaper the process of searching of partners and establishment of business contacts. To make Internet accessible for all personnel of the university - is one of the basic tasks of the near future, which will allow us to bring up the international cooperation on a qualitatively new level. Since 1991 for participation in scientific conferences, for readings of lectures and training 461 persons from the university left for 24 countries of the world, including 258 students and postgraduate students. In 1992-1996 314 persons from 18 countries of the world visited our university. On the basis of the university 100 foreign students have been trained.

## General results of 1996-1997:

- The language training of 158 students of TPU are organized in the USA, Germany, England, France, Cyprus, Tunis, Malta.
- The programs of professional training of 82 students are executed: in the firm "BIA International" (Dallas, Texas,

USA) under the program "Management of oil-and-gasextracting complex", professional training on a speciality "Computer science and management in bank business" (Saint Louis, USA), professional practical study on a " Management" (Ulsan, South Korea). There are executed programs of professional training in Germany (University of Karlsruhe, High technical institute of Aachen, German Academy of management (Low Saxony), technical university of Dresden, University of Saarland, firm BASF FG (Ludwigshaven).

- 62 teachers of TPU have passed practical study abroad, including 15 teachers of faculties of foreign languages
- 12 post-graduate students left for scientific training
- 28 foreign experts from the USA, Germany, South Korea, France, China were on special courses in TPU.

## Scientific relations actively extend:

- 28 investigators of research institutes left for scientific training abroad
- 45 scientists participated in international conferences The work on 31 contracts, made with foreign partners on scientific activity is conducted
- 31 contracts are made with foreign researches
- in 1997 the scientific departments of TPU execute the

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contracts with foreign countries for the sum of about \$650000. The university has 30 direct contracts on training and exchange of students, post-graduate students and investigators with the USA, Germany, South Korea, England, Japan, Cyprus and China In 1997 the total sum of borrowed non-budget funds for realization of training abroad made up about 2,000,000,000,000 rubles

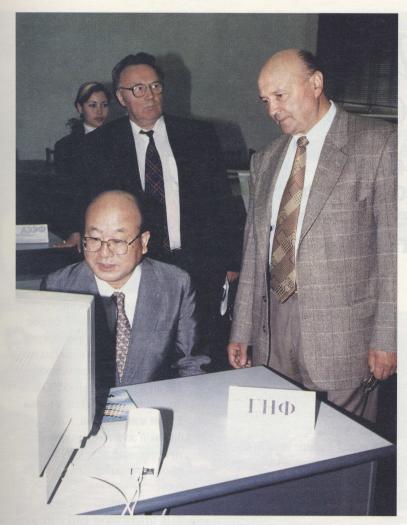
- on training of the students of TPU in the USA is attracted \$85,000
- on training of the students of TPU in Germany is attracted 152 000 DM
- as free aid for purchase of the equipment and literature
   \$85,000 are received from the foreign companies and organizations
- in 1997 the contact bureau was opened and actively works on the basis of scientific and tech-

nical library and Russian-German center, it is completely equipped at the expense of the foreign investments

There is a process of increasing of the number of subfaculties participating in international cooperation. For today 38 subfaculties have established cooperation with foreign organizations in various forms. Of special note are: the subfaculty of organic chemistry and technology of organic synthesis (Chair Head V. D. Filimonov), the subfaculty of optimization of control systems (Chair Head V. Z. Yampolsky), the subfaculty of electrical systems (Chair Head Yu. V. Khruschev), the subfaculty of radio engineering (Chair Head M. S. Roitman), the subfaculty of geology and exploitation of petroleum deposits (Chair Head G. M. Voloschuk), the subfaculty of nuclear and thermal power stations (Chair Head L. A.



На фото: подписание договора о сотрудничестве между НИИ интроскопии и фирмой JME Ltd.,
Великобритания
Photo: signing of the contract on cooperation between the Research Institute of Introscopy and JME Ltd.,
Great Britain



Beliayev), the subfaculty of automation and robotization in mechanical engineering (Chair Head M. G. Goldshmidt), Seversk

technological institute (rector A. N. Zhiganov), Siberian certification center at TPU (E. N. Ruzaev).

Professor N. P. Kirillov, Vice-rector of TPU on international cooperation

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На фото: ректор ТПУ Ю. Похолков и профессор Я. Харада, президент Хиросимского университета (Япония), Томск, 1998

Photo: rector of TPU Yu. Pokbolkov and prof. Ya. Harada, president of Hirosbima University (Japan), Tomsk, 1998