PEN-International
Post-secondary Education Network International

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Overview

In a first-of-its-kind effort to significantly improve education and career opportunities for the world's 6 million deaf and hard-of-hearing people, The Nippon Foundation of Japan has partnered with the National Technical Institute for the Deaf (NTID) at Rochester Institute of Technology (RIT) and Japan's Tsukuba College of Technology (TCT) to establish a worldwide university network.

The Nippon Foundation awarded NTID $911,700 to underwrite the first year of a five-year $6.17 million project, the Postsecondary Education Network International (PEN-International). PEN-International is being undertaken to help universities apply state-of-the-art instructional technologies, improve and update their technical curriculum, and update their computer hardware and software for instruction. NTID and TCT will use their collective expertise in deaf education and technology to assist participating countries with faculty training, development of instructional products, and application of the worldwide web, information technology and distance learning technologies to teaching and learning. NTID and TCT faculty will be teaching various information technologies and operating systems, as well as various multimedia and off-the-shelf software packages. In addition, student and faculty exchanges and joint ventures with information technology industries will be implemented.

The long-term goals of the project are twofold: to equip deaf residents of participant countries with the skills needed to compete in a high technology workplace, and to prepare universities to share the knowledge and instructional products they develop with other colleges.

PEN-International will enhance local capability and global networking at each participant institution. Participants will be moved from importers of 'know how' to self-sufficiency. As the project progresses, each institution will develop the capability to export what has been learned through the project to other programs serving people who are deaf.

Over the five-year life of the project, PEN-International will work in as many as 10 different countries, with Tianjin College for the Deaf of Tianjin University of Technology (China) being the first, and the Center for the Deaf at Moscow State Technical University (Russia) to follow.

According to The Nippon Foundation, "This current award was made to NTID because of their proven record of excellence in educating deaf people and because of their demonstrated success in international cooperation with TCT."

The first and largest technological college in the world for deaf and hard of hearing students, NTID, one of seven colleges of RIT, offers educational programs and access and support services to the 1,100 deaf and hard-of-hearing students from around the world who study, live and socialize with 12,000 hearing students on RIT's Rochester, N.Y. campus.

Project Goals

- Increase the application of information technology and instructional technology to teaching and learning;
- Improve teaching, learning, curriculum development and instructional development;
- Expand career education opportunities for deaf and hard-of-hearing people internationally; and,
- Increase access by people who are deaf to technology and employment in the information technology industry.

Primary Objective

Implement and expand a cooperative network of educational institutions providing postsecondary education to students who are deaf and hard of hearing using innovative information and instructional technologies, and faculty training and development.

Enabling Objectives

- Stage One: Construct and test the infrastructure for an international postsecondary education network using three of NTID's four sister institutions: (1) Tianjin Technical College for the Deaf of Tianjin University of Technology (China-1998); (2) Moscow State Technical University Program for the Deaf (Russia-1994); and, (3) Tsukuba College of Technology (Japan-1992). The infrastructure will be comprised of the WWW portal to the project, multi-media laboratories/classrooms at each institution, local area networks, and the international telecommunications networking needed to connect all of the participant institutions.

- Stage Two: Expand the international network to include other programs in both developing and developed nations that are ready to join the network, with special consideration to programs in the Pacific Basin.

Long-term Objective

Influence attitudes, practices and policies in the information technology industry so that people who are deaf are not blocked from access to technology or employment in the industry.

Target Group

The beneficiaries of the project will be deaf and hard-of-hearing people in participant countries. This will be achieved through improvement of instruction at postsecondary educational institutions.

Background

Internationally, there are a limited number of postsecondary education programs for people who are deaf or hard of hearing but more countries are developing programs and services. In Japan, it was not until 1990 that Tsukuba College of Technology for deaf and visually impaired people opened its doors. The college, which was modeled after NTID, was the first of its kind in all of Asia and has proven in a very short period of time to be a leader in the technical education of people who are deaf.

NTID and TCT have worked together since TCT's inception to share educational expertise and transfer technology. However, this has been done on a limited basis because limited resources have been used to serve their respective students.

Strategy

NTID has developed four (4) sister institution relationships with colleges and universities internationally in an effort to improve the circumstances of deaf and hard-of-hearing people in technical and professional education. These relationships have by necessity been limited because the demand on institutional resources has resulted in their being directed to meet the needs of the 1100+ deaf and hard-of-hearing students at Rochester Institute of Technology. Therefore, the college has continued to maintain, but has limited significantly, the breadth and depth of its current sister institution relationships and has not added to the cohort since the addition of Tianjin Technical College for the Deaf.

These sister institutions will serve as the core of an international postsecondary educational network. This project will enable that network and will be executed in two phases. Therefore, a two-stage program that builds and expands upon relationships in various parts of the globe will be undertaken. The two stages will overlap since certain activities in each stage will occur simultaneously.

In **stage one**, current relationships will be developed into an international network. NTID and TCT will form a development team as soon as the project commences. The development team

will be led by the NTID project coordinator and will be comprised of a minimum of two individuals from each participant institution. Members of the team will be selected by each participant institution on the basis of their instructional technology experience, demonstrated leadership skills within their home institution, and recognition as excellent teachers. In effect, the team will be comprised of key individuals from each of the participant institutions. This team will help design the international postsecondary network and will help assure that the project meets the needs of participating institutions. The intention is to assure collaboration, where each participant institution has a hand in the network design.

An **industry/education cooperation committee** will also be established. This committee will provide counsel to project management regarding emerging information technology. The committee also will be utilized to help solicit donations of state-of-the-art equipment from business and industry and assist in the development of employment opportunities for graduates of the participant institutions in the home country. In addition, and of equal importance, project staff will work through the committee to constructively influence policies, practices and procedures in the information technology industry as regards people who are deaf. The committee will be used as a vehicle to promote the needs of deaf people regarding both employment and technology.

During **stage one**, NTID and Tsukuba College of Technology, under the leadership of NTID, and with guidance from a development team, will establish the network at Tianjin Technical College for the Deaf and Moscow State Technical University. One other institution, to be selected as a result of site visits in years one and two of the project will be included in stage one of the project. It is not yet clear that Ratchasuda College in Thailand will be one of those included in the project as they are still considering if they have the resources to participate given other critical college priorities.

NTID and TCT will pilot test the network components prior to dissemination to other participant schools. It will be necessary to assure that the network components are compatible within and across countries. The network components will include but will not necessarily be limited to the WWW portal for the project, videoconferencing network technology, local area computer networks, smart-classroom technology (e.g., smart blackboards), instructional technology (e.g., multi-media technology) and the like. In addition, as new technological advances emerge they will be built into the project as funding permits.

Further, TCT and NTID will provide training for faculty members at participant institutions. Both NTID and TCT together have more than 40 years of experience applying information and instructional technology to the education of deaf students. This knowledge will be transferred to participant institutions by the training of faculty at these institutions. In addition, following initial training, NTID and TCT will provide technical assistance as those faculty implement what they have learned. Further, the project will train individuals at each institution to serve as local experts in applying, trouble shooting and evaluating the instructional and the technology components of the project. TCT and NTID faculty will also facilitate instructional technology

transfer. For example, NTID and TCT have developed and or adapted curriculum and instructional solutions that could be modified to reflect the needs of the partner institutions. These solutions will be transferred to participant institutions. NTID and TCT will provide such technology transfer via faculty who are schooled and experienced in the use of information and instructional technology for deaf. Finally, NTID will provide training to network participant faculty in the psychology of teaching and learning for deaf students.

The development team will play a major role here as well. The team will participate in the establishment of minimum standards for faculty skill development and technology transfer.

As a first step in **stage two,** project staff will conduct an assessment of the capabilities of selected countries that have a well established secondary education system for deaf students in the Pacific Basin (other than NTID's sister institutions) to participate in the network. **Stage two** of the project will see the expansion of the network. In **stage two**, the network will be expanded to include other developing countries (to be determined) and developed countries as well (to be determined). Since there are limited opportunities for postsecondary education for deaf people in many parts of the world, stage two may see the addition of one or more postsecondary programs that exist but are in need of assistance in solidifying their programming for deaf and hard-of-hearing students.

Throughout the project, NTID and TCT will provide technical assistance and facilitate instructional technology transfer in situ, and through distance learning technologies. In addition, selected and highly competent faculty from the participant institutions will provide technical assistance in areas in which they possess special expertise.

Finally, during both **stage one and stage two,** international exchanges of students will be fostered. These exchanges will serve to expose the student participants to the culture of the other countries. The exchanges will also serve to provide students with an introduction to the information technologies used in participant countries. Because of the globalization of the world economy, an international exchange of students is considered one of the best ways for participant institutions to expose their students to the realities of the world they will face after graduation. Concomitantly, the exchanges will improve the quality of education at each participant institution by broadening and expanding the scope of experiences offered to students. The underlying philosophy of the exchanges will be as follows: **to strengthen each participant's cultural and personal identity while simultaneously helping them develop an understanding of the diverse cultures that effect the global marketplace**.

Slide 1

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Postsecondary Education Network International:

For Students who are Deaf or Hard of Hearing

Poster Session – Instructional Technology and Education of the Deaf Symposium
25 June 2001

Slide 2

日本財団
The Nippon Foundation

TCT
筑波技術短期大学

N·T·I·D
a college of Rochester Institute of Technology

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Slide 3

Postsecondary Education Network International

PEN-International

Opening the door to networking

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Slide 4

National Technical Institute For the Deaf
a college of Rochester Institute of Technology

Tsukuba College of Technology

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Tianjin Technical College

Ratchasuda College

Moscow State Technical University

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Slide 5

Tsukuba College Of Technology

TCT

Slide 6

BAUMAN MOSCOW STATE TECHNICAL UNIVERSITY

Slide 7

Tianjin Technical College for the Deaf

TUT

Slide 8

All efforts in stage one and stage two will have as their foci:

- expansion of the career education curriculum

- adaptation of instructional and information technologies

- improvement of faculty skills in utilizing instructional and information technologies

- implementation of technologies and strategies

Slide 9

Project Goals

- Improve teaching, learning, curriculum development and instructional development

- Increase the application of technology to teaching and learning

- Expand career education opportunities for deaf and hard-of-hearing people around the world

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Slide 10

Primary Objective

The Nippon Foundation

Implement and expand a cooperative network of educational institutions around the world providing postsecondary education to students who are deaf and hard-of-hearing, using innovative information and instructional technologies, and faculty training and development.

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Strategy

- In stage one, current relationships will be developed into an international network.

- A development team comprised of key leaders from each of the participant institutions will be formed, to assure the project is one of collaboration and cooperation.

Slide 12

Strategy ...

- Training and instructional technology transfer will occur.

- During stage one PEN-International will conduct an assessment of selected countries in the Pacific Basin.
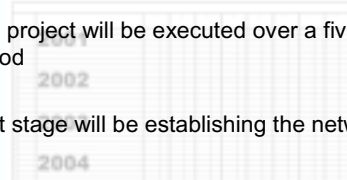
Strategy …

- In stage two, the network will be expanded to include 3 other countries.

- Throughout the project, technical assistance and instructional technology transfer will occur through distance learning technologies.
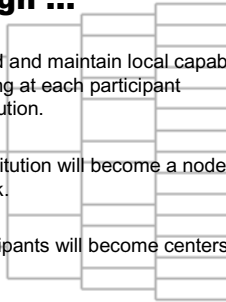
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Project Design

- The project will be executed over a five-year period

- First stage will be establishing the network

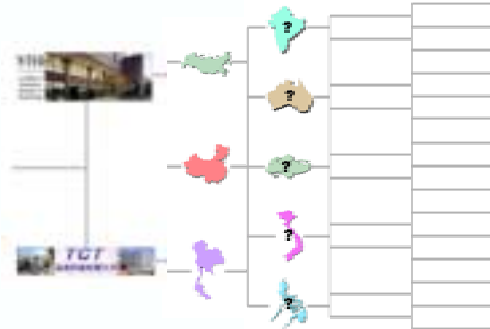- Second stage will be expansion of the network in the Pacific Basin and elsewhere

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Project Design …

- This project will build and maintain local capability and global networking at each participant postsecondary institution.

- Each participant institution will become a node on the international network.

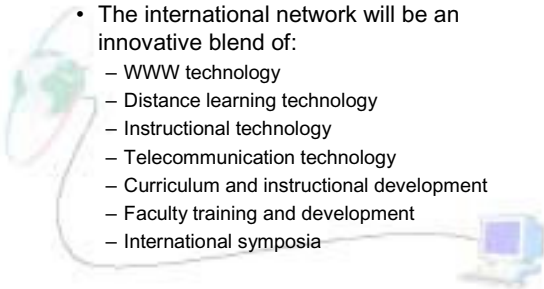- Eventually, all participants will become centers of excellence.

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Project Design …

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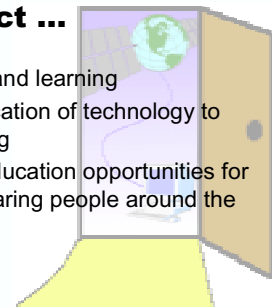## Distinguishing features …

- The international network will be an innovative blend of:
  - WWW technology
  - Distance learning technology
  - Instructional technology
  - Telecommunication technology
  - Curriculum and instructional development
  - Faculty training and development
  - International symposia

Expected outcomes and long-term effect …

- Improving teaching and learning
- Increasing the application of technology to teaching and learning
- Expanding career education opportunities for deaf and hard-of-hearing people around the world

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Expected outcomes and long-term effect …

- Faculty in participating countries become better prepared
- Participating institutions become exporters of the expertise they developed to other institutions
- Deaf and hard-of-hearing people are better prepared through improved education

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Major Accomplishments

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Postsecondary Education Network International: For Students who are Deaf or Hard of Hearing

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Major Accomplishments to Date…
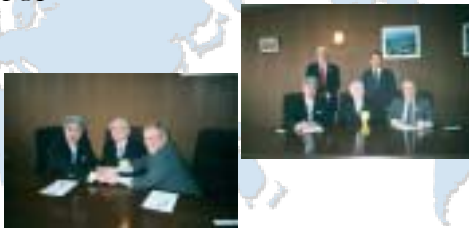
- Signed agreement with The Nippon Foundation

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Major Accomplishments to Date…

- Singed memorandum of Understanding with TCT

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Major Accomplishments to Date…

- Singed memorandum of Understanding with TUT

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Major Accomplishments to Date, cont.

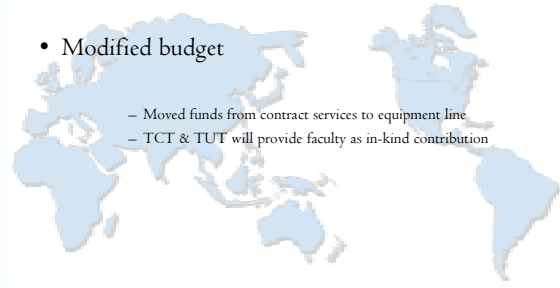- Established preliminary design and budgets for multi-media labs

Major Accomplishments to Date, cont.

- Modified budget
  - Moved funds from contract services to equipment line
  - TCT & TUT will provide faculty as in-kind contribution

Major Accomplishments to Date, cont.

- Student ambassadors for the first exchange to China.
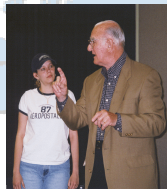 - Process for selection has been established and students selected

Major Accomplishments to Date, cont.

- Cross-cultural Haiku Competition

  –First-ever competition in Japan and USA for deaf students

  –Students selected

  –Will be used as part of opening of the lab in October 2001 at TCT

Major Accomplishments to Date, cont.

- Planning Visit to Moscow State Technical University Completed
  - Initiating plans for MSTU joining the network in Year 2

Major Accomplishments to Date, cont.

- Preliminary Training of Tianjin Technical College for the Deaf Conducted.

  - Networking and video conferencing

  - Teaching/learning theory and www strategies for supporting teaching

Major Accomplishments to Date, cont.

- Official Signing Ceremony is completed

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Plans for the Next 8 Months

- Establish the Lab in Tianjin
  - Room is ready to accept the equipment

  – Purchase equipment
  – Network the equipment
  – Test the lab (late August)
  – Start to use lab with Students (September)
  – Official opening of the Lab (30, October 2001)

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Plans for the Next 8 Months, cont.

- Testing and Evaluation Training (Tianjin)

  – Tianjin faculty members go to TCT (first week of August 2001) for intensive training
  – Dean Ohnuma conducts workshop in Tianjin for faculty (19-23, August 2001)

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Plans for the Next 8 Months, cont.

- Complete WWW Site
  – Plenary design complete
  – Fully operation (1, January 2002)

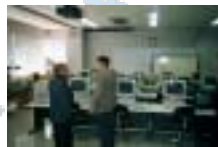**PEN-International**

Plans for the Next 8 Months, cont.

- Establish Video Conferencing Capability at TCT
  – Rooms are ready to accept the equipment
  – Wire the rooms
  – Test the equipment (late August 2001)
  – Officially open the lab (1, October 2001)

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Plans for the Next 8 Months, cont.

- Conduct Student Exchange (20 – 30, November 2001)

Faculty Leaders

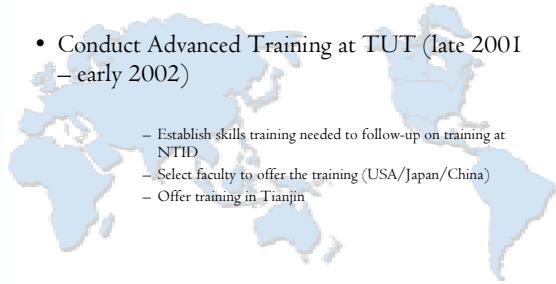Dr. Susan D. Fischer   Mr. Robert K. Baker

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Plans for the Next 8 Months, cont.

- Conduct Advanced Training at TUT (late 2001 – early 2002)
    - Establish skills training needed to follow-up on training at NTID
    - Select faculty to offer the training (USA/Japan/China)
    - Offer training in Tianjin

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Plans for the Next 8 Months, cont.

- Form Industry/Education Cooperation Committee (by 1, February 2002)
    - Identify corporations in China, Japan, Russia and the USA to bring into the committee
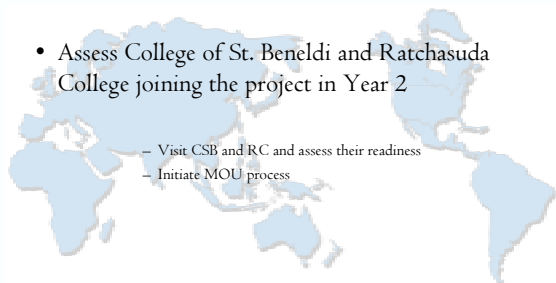   - Invite key people from corporation to invite to serve on the committee

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Plans for the Next 8 Months, cont.

- Assess College of St. Beneldi and Ratchasuda College joining the project in Year 2
    - Visit CSB and RC and assess their readiness
    - Initiate MOU process

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Plans for the Next 8 Months, cont.

- Construct Year 1 Report and Year 2 Proposal

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PEN-International Postsecondary Education Network International: For Students who are Deaf or Hard of Hearing

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Postsecondary Education Network International

For Students Who Are Deaf or Hard-of-Hearing

National Technical Institute for the Deaf
R·I·T

Tsukuba College of Technology

The Nippon Foundation is partnering with the National Technical Institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT) and Japan's Tsukuba College of Technology (TCT) to establish a worldwide university network serving deaf students. The Foundation is guided by two principles. First, there can be no artificial barriers to efforts to help people. They will not let politics, ideology, nationality, creed or color deny the basic human right to live free or to have the chance to fully develop the potential of the people. The Nippon Foundation believes that all people deserve to have the dignity and freedom that comes from being self-reliant and self-sufficient.

Second, The Nippon Foundation believes in partnership. It does not presume to know best about local conditions and individual needs. The Nippon Foundation sees its role as helping those individuals and groups do their work. The Foundation's goal is to put their assistance to the best effect by choosing the best grantees and by having them engage in work that bring concrete benefits.

The Nippon Foundation's philosophy is simple: They believe that with the right combination of ideas, initiatives and resources, anything is possible.

www.nippon-foundation.or.jp/english/

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Goals:

- Improve teaching, learning, curriculum development and instructional development
- Increase the application of technology to teaching and learning
- Expand career education opportunities for deaf and hard-of-hearing people around the world.

Design

- The program will be executed over a five-year period
- First stage will be establishment of a network.
- Second Stage will be expansion of the network in the Pacific Basin and elsewhere.
- Each participant institution will become a node on the international network.
- All participants will become centers of excellence.

Postsecondary Education Network International: for Students Who Are Deaf or Hard-of-Hearing

The Nippon Foundation of Japan is partnering with the National Technical Institute for the Deaf and Japan's Tsukuba College of Technology (TCT) to establish a worldwide university network: PEN-International. This is a first-of-its kind effort to significantly improve education and career opportunities for the world's 6 million deaf and hard-of-hearing people.

"The grant will have a very positive impact upon the educational conditions and the career prospects of deaf men and women around the world."
...Robert R. Davila, NTID CEO

PEN-International is being undertaken to help universities that educate students who are deaf to apply state-of-the-art instructional technologies, improve and update their technical curriculum, and update their computer hardware and software for instruction.

THIS IS THE FIRST STEP

...in a multiyear partnership to technologically link universities around the world that serve deaf and hard-of-hearing people. Participant countries will work in partnership to train their faculty, develop instructional products; and apply the worldwide web, information technology, and distance learning technologies to teaching and learning.

"Our Partnership with NTID to establish and conduct PEN-International is a logical extension of our already close working relationship."
...Naoki Ohnuma, Dean of TCT

Faculty at participating institutions will learn various information technologies and operating systems, as well as various multimedia and off-the-shelf software packages. In addition, student and faculty exchanges and joint ventures with information technology industries will be implemented.

"Each participant institution will develop the capability to export what has been learned through the project to other programs serving people who are deaf."
...James J. DeCaro, Director of PEN-International

THE LONG-TERM GOALS

...of the project are twofold: to equip deaf residents of participant countries with the skills needed to compete in a high technology workplace, and to prepare universities to share the knowledge and instructional products they develop with other colleges. PEN-International will enhance local capability and global networking at each participant institution. As the project progresses, each institution will develop the capability to export what they learn through the project to other programs serving people who are deaf. Over the five-year life of the project, PEN-International will work in as many as 10 different countries, with Tianjin College for the Deaf of Tianjin University of Technology (China) being the first, and the Center for the Deaf at Bauman Moscow State Technical University (Russia) to follow.