

BCIT GOES BEYOND THE CLASSROOM

The campus takes the initiative in international education, co-operative agreements and technology transfer.

Since the merger of BCIT and the Pacific Vocational Institute in 1985, BCIT has been enhanced by initiatives in three areas: international education, co-operative agreements with post-secondary institutions at home and abroad, and collaboration with industry through technology transfer.

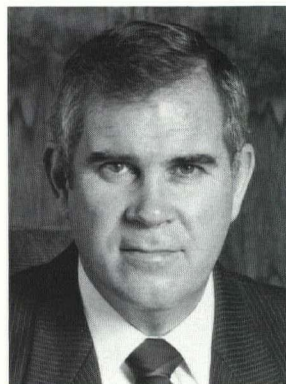
These initiatives complement BCIT's goal of providing the highest quality teaching because faculty members are given opportunities for professional development as well as exposure to new ideas and the latest research. This, in turn, has a positive impact on the relevance and quality of education students receive at BCIT.

These initiatives also play a role in fulfilling the mandate set forth for BCIT at the time of the merger. The provincial government's decision to amalgamate BCIT and PVI was based on an ambitious goal. In the words of then Education Minister Jack Heinrich, the two institutions would merge to create "a supermarket of high technology training capable of transforming the high school graduate into a highly competent tradesman or technologist."

"The workforce is facing a revolution in required skills and government intends to meet those new demands," he said.

The mandate given to us by the provincial government at the time of the merger was translated into an Institute mission statement which has now become the focal point of our operating philosophy.

It reads: "BCIT's mission is to be an innovative, flexible training institution for trades and technology that promotes and achieves excellence in technology transfer through the provision of relevant, job-related knowledge, skills and attitudes, and



BCIT President Roy Murray: sharing expertise, developing links, pursuing opportunities.

development assistance for business and industry."

The mission statement recognizes that the role we are to play in technology transfer goes beyond the transfer of relevant job-related knowledge in the classroom. It also involves sharing our technical expertise and equipment with industry, thus helping British Columbia to remain competitive in a global marketplace and to create new job opportunities here at home.

This applied research role with industry was formalized earlier this year with the creation of the BCIT Development Assistance Centre. Other traditional ventures with industry are growing and we intend to co-ordinate these activities by establishing an Industry Liaison Office on campus.

Another essential part of the technology transfer equation is the role we have to play in international education, especially in the Pacific Rim, where many of the province's major trading partners are located. Over the past two years, we have been pursuing co-operative agreements with educational institutions in these and other countries.

Equally important, we have been developing and formalizing links with other educational institutions here in B.C. and throughout Canada. By sharing knowledge, resources and expertise, the academic quality of each institution is enhanced. •

INSIDE...

Technology Transfer

Campus Research Teams Up With Industry Development Assistance Centre Board of Directors	2
BCIT Signs Major Agreement With IBM	3
Artificial Intelligence Research Gives Grads Competitive Edge	4
IBEW and Electrical Contractors Association Collaborate with BCIT	4

International Initiatives

President's Chair Boosts International Education	4
Pacific Rim Twinning Agreements Signed	6

Co-operative Connections

Industry and BCIT Networking in "Breakfast Series"	6
BCIT and Vancouver Community College Join Forces	7
BCIT Joins TRIUMF	7
President Murray Appointed to National Research Council	7
Aviation Hangar Heralds New Opportunities	8

CAMPUS RESEARCH TEAMS UP WITH INDUSTRY

The new Development Assistance Centre promotes technology transfer and provides services to industry.

BCIT has established the Development Assistance Centre to assist and collaborate with industry on applied research projects. The centre is a non-profit venture separate from but closely allied with BCIT.

The provincial government's Excellence in Education Fund provides \$225,000 for operation of the centre, which will be seeking additional support in the future through a fund raising campaign aimed at the private sector.

Steve Dudra of BCIT's Operations Management Faculty has received funding from the National Research Council to consult with industry on how to apply appropriate technology to improve their products, processes and production operations and to enhance business opportunities.

Policy and operational procedures for the Development Assistance Centre are being developed by a 17-member board of directors, which includes BCIT, government and industry representatives.

Chairman of the Board of Directors, Barry Williams, says, "the Development Assistance Centre is an excellent way to increase BCIT's interaction with industry and provide services to industry using the specialized facilities that are available at BCIT."



Development Assistance Centre Chairman Barry Williams:
"... an excellent way to increase BCIT's interaction with industry ..."

Faculty member, Dr. Joffre Berry of the Chemical Sciences program, has been appointed to the position of director of the Development Assistance Centre for a two-year term.

Several projects are under evaluation by the Centre, including the destruction of polychlorinated bi-phenyls (PCBs), a chemical therapy trial using zinc, and the design and construction of a tree harvesting

machine.

For more information on the BCIT Development Assistance Centre, contact Dr. Joffre Berry at 432-8373. •



Dr. Joffre Berry is Director of the new Development Assistance Centre, which allows BCIT to formally enter the field of applied research.

DEVELOPMENT ASSISTANCE CENTRE BOARD OF DIRECTORS

(Chairman) Barry Williams
Director, B.C. Innovation Office

(Director) Dr. Joffre Berry
Program Head, BCIT

Professor Thomas Calvert
Vice President Research/Industrial Systems
Simon Fraser University

Dr. Sally Hemming
Medical Health Officer
Burnaby Health Department

David Timuss
Vice President
Can Test Limited

Dr. Rusty Morgan
Manager, Materials and Engineering
Hardy and Associates

Dr. Basil Peters
Chairman
Nexus Engineering Corporation

Dr. William Cullen
Professor of Chemistry
University of British Columbia

Dr. Terrance Howard
Executive Director
B.C. Research Council

Inglis Edwards
Industrial Technical Advisor
National Research Council,
Simon Fraser University

Ron Venne
Instructor, Systems Development
BCIT

Mark Angelo
Instructor, Fish/Wildlife
BCIT

Marshall Heinekey
Instructor, Civil and Structural
BCIT

George Eisler
Department Head,
Health Engineering Services,
BCIT

Dr. Rita Bakan
Instructor, Basic Health Sciences
BCIT

Gino Simeoni
Co-ordinator, Co-operative Education
BCIT

Dr. Mal Phillips
Instructor, Electrical/Electronics
BCIT

BCIT SIGNS MAJOR AGREEMENT WITH IBM

The Institute recently signed an agreement with IBM Canada Ltd. to participate in an interactive videodisc project that will help deliver continuing education courses to B.C. health care professionals.

Under the terms of the \$1-million, 30-month development project, BCIT will contribute resources and scientific expertise from its Health Sciences and Computer Based Education departments. IBM will provide laser videodisc computer equipment and technical support for the BCIT project.

Further support will come from the B.C. Heart Foundation, St. Paul's Hospital and Simon Fraser University.

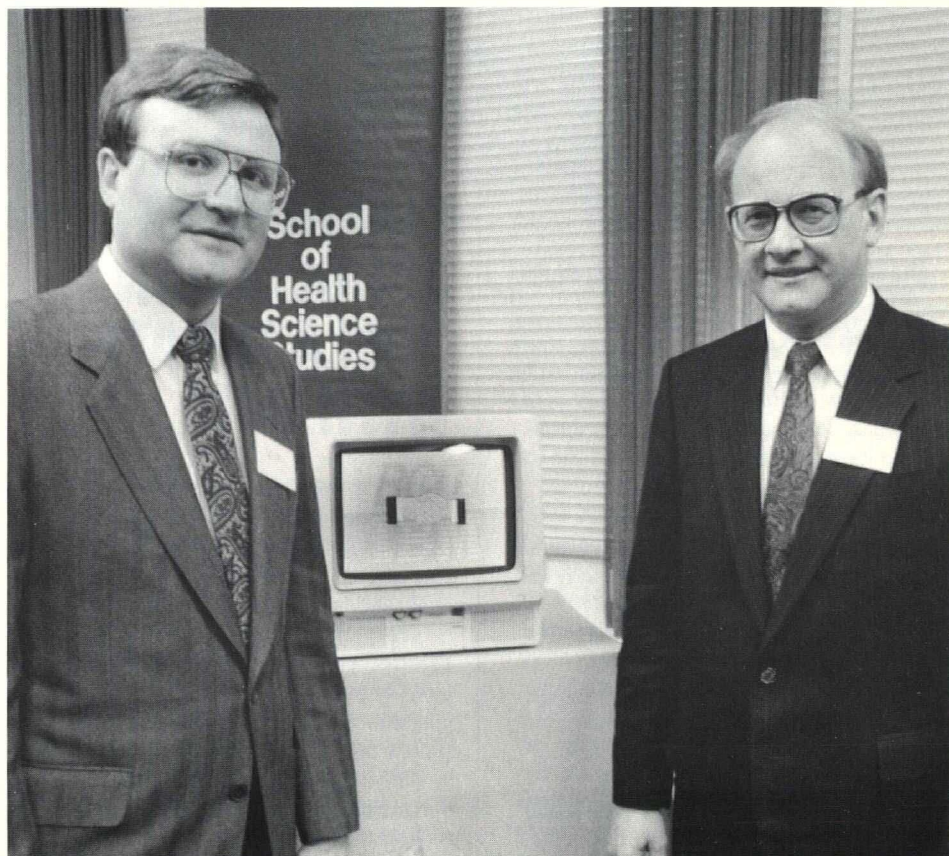
'Interactive technology' simply means that the computer user has the opportunity to interact with the information stored on the videodisc. For example, the user may have

the system repeat information as often as required or to move ahead instantly to any part of the program.

IBM provided interactive videodisc systems to Expo 86. They were used in the popular 'IBM Expo Info' visitor information booths.

With the IBM equipment, BCIT will set up an interactive videodisc learning centre to study instructional methodology and to develop two specific courses for teaching student nurses and experienced health care professionals.

The Minister for Advanced Education and Job Training, Stanley Hagen, who launched the project on March 20, said it supported the Ministry's desire to develop technology transfer and economic development within the province. •



Launching the BCIT/IBM Interactive Videodisc Project are Minister of Advanced Education and Job Training, Stanley Hagen (right), and IBM Vice President for Western Canada, John Wetmore.

ARTIFICIAL INTELLIGENCE RESEARCH GIVES GRADS COMPETITIVE EDGE

Students working in the BCIT Applied Research in Computer Systems (ARCS) Laboratory are gaining valuable industrial experience by developing artificial intelligence systems for B.C. companies.

One such project is to develop an "Expert System" for a hospital in the interior of B.C. The project is being developed on a powerful new UNISYS computer, which BCIT acquired with assistance from the provincial government and UNISYS (formerly Sperry Corporation).

Essentially, this Expert System will be a computer program that will act as an expert on any number of the hospital's operations and procedures. Using the program will be like consulting the hospital's experts—the computer may ask questions, explain its reasoning, learn from its interaction with the user and justify its conclusions.

Students from the ARCS Lab, acting as "knowledge engineers," will talk to hospital experts and attempt to "capture" their collective knowledge in a computer program. Then, combined with a complex deductive logic system, the program will simulate the behaviour of the very best hospital professional.

Expert Systems are being implemented by more than two thirds of Fortune 500 companies. Campbell's Soup recently developed an Expert System that captured the knowledge of a retiring executive.

Another company, ABC Technology Inc., recently donated \$102,000 to fund continuing research and development work at BCIT. Part of this involves hiring a BCIT graduate to develop prototype systems using interactive videodisc technology.

ARCS Lab, an offshoot of the Computer Systems Technology Department, was founded by faculty member, Dr. Michael Scriabin, who realized that involving students in artificial intelligence projects for companies would generate positive benefits for both industry and the institute.

Much of the success of ARCS is attributed to faculty member Fred Martin, a recognized expert in artificial intelligence and a creative

force behind applied research in computer systems at BCIT. The ARCS Lab has worked on four other joint industrial-institute projects since it was established in 1984.

Scriabin says that creating this research arm of the Computer Systems Technology Department ensures that BCIT students graduate with skills that are current or a little ahead of those in industry.

"To do well in the computer software market today, we must also be able to compete at the international level," Scriabin says. "If BCIT is to produce grads capable of competing at that level, we must have an atmosphere of innovation right here on campus." •

IBEW AND ELECTRICAL CONTRACTORS ASSOCIATION COLLABORATE WITH BCIT

BCIT is working with the International Brotherhood of Electrical Workers (IBEW) and the Electrical Contractors Association on a project to develop industrial applications of artificial intelligence.

The project is being funded by an initial \$387,583 grant from the federal government's Innovations Canada scheme and approximately \$100,000 in donations from private manufacturers and developers.

The Institute and the IBEW are also co-operating on a series of courses designed to re-educate electrical journeymen for rapidly changing technology. Funded by the federal government, these courses teach journeymen the industrial applications of computers and accompanying training aids. •

PRESIDENT'S CHAIR BOOSTS INTERNATIONAL EDUCATION

The creator of Canada AM and a veteran Canadian journalist, Tom Gould is the first occupant of BCIT's "President's Chair".

The President's Chair was established in December 1986 by the Board of Governors to allow BCIT to appoint individuals with highly specialized knowledge and national or international stature for short term teaching engagements.

Gould's career covers more than three decades. In the early 1950s, he worked for FP Publications and the *Vancouver Sun* as Ottawa bureau chief and columnist. During the 1960s, he worked for the CBC as a foreign correspondent in Hong Kong, New York, Tokyo and Ottawa and from 1968 to 1978 was vice president, director and executive producer of the CTV News.

During this time, he created such noteworthy programs as Canada AM, Maclear

and Canada Five Portraits. During the past several years he has written film and television scripts and represented the Minister of Communications in negotiations with CBC on budget reductions.

As occupant of the BCIT President's Chair, Gould divides his time between giving seminars to Broadcast Communications students and assisting BCIT develop international education opportunities and exchanges. The latter responsibility is a new focus for the Institute.

Gould will travel to China within the next few months to finalize a twinning agreement between BCIT and Guangzhou University and to investigate possibilities for mutually beneficial relationships with other

educational institutions in Guangzhou.

The trip represents the culmination of an initiative undertaken over one year ago by BCIT. At that time, Peter Jones, Vice President Student Services and Educational Support, travelled to Indonesia, Malaysia, Singapore, Thailand and Brunei as a member of a B.C. government education mission. In the course of that mission, Jones was able to make some of the preliminary arrangements that resulted in today's twinning agreements.

President Murray sees the development of BCIT's international profile as an important part of the Institute's mission. Since becoming president of BCIT in 1985, Murray has visited several countries to promote the institute and establish links.

Tom Gould (far right), first occupant of the President's Chair, divides his time between teaching in the Broadcast Communications program and helping BCIT develop educational opportunities overseas.

Earlier this year, he travelled to Hong Kong, Singapore, Thailand, Malaysia, Guangzhou and Taiwan to finalize educational exchange arrangements and twinning agreements. In April, he was invited by the Arab Federation for Technical Education to speak at their convocation in Morocco.

"Virtually all developing countries have spent a significant amount of time and energy since the 1950s re-thinking their educational systems, and there seems to be a unanimous agreement among them that a much larger place must be given to technical and vocational training," said Murray in his address on The Economics of Technical Education and Modern Technology. •



PACIFIC RIM TWINNING AGREEMENTS SIGNED

BCIT has a three-year twinning agreement (an arrangement to share information and resources) with Ngee Ann Polytechnic, a business and engineering institution in Singapore.

The first major collaborative effort between the two institutions is a \$165,000 CIDA-funded project which came about after BCIT, together with Humber college, was asked to visit Ngee Ann and make recommendations on how to deal with the college's attrition rate.

BCIT and Humber are also sending 15 senior consultants to assist Ngee Ann with curriculum evaluation, and development in programming, academic student services and administration. In return, Ngee Ann is sending several experts to share their expertise in the area of computer-assisted design and manufacture, microelectronics and computing.

"The role that BCIT plays in this community and that Ngee Ann plays in Singapore is to make people employable—

supplying the needs of the commercial and industrial sectors in the community," says David Sabo, BCIT International Education Co-ordinator.

"It is a way to enhance our ability to deliver the required product while helping someone else do that in their community. We're also developing contacts with other nearby countries, which is important because B.C.'s economy is very much based on trade with the Pacific region."

BCIT has also established formal twinning agreements with Pasadena City College in the U.S., Guangzhou University in The Peoples Republic of China and Rift Valley College in Kenya. Interested faculty are currently being recruited for short and long term assignments.

Also under negotiation at this time are international twinning agreements with Hong Kong Polytechnic, the Shanghai Medical School and Robert Gordon College in Scotland. •



President Shi-Xun Zhang of China's Guangzhou University (middle) visited the campus in March to discuss twinning arrangements with BCIT Board of Governors Chairman, Malcolm Wickson (left) and President Murray.

INDUSTRY AND BCIT NETWORKING IN 'BREAKFAST SERIES'

Since 1984, BCIT has maintained a strong link with industry through its Development Council, a panel of external representatives assisting the institute with its capital fund raising campaigns.

One feature of the Council's activities is a regular "breakfast series" designed to bring industry leaders and BCIT together for networking and information exchange. Each breakfast is held at a downtown hotel and features a special guest speaker addressing the subject of technology change.

Feature speakers have included the Honourable Frank Oberle, Minister of State for Science and Technology; Pierre Jeannot,



Robert Ferchat, President, Northern Telecom Canada Ltd., spoke on technological change.



**Pierre Jeannot,
President,
Air Canada,
guest speaker in
BCIT Breakfast
Series.**

president of Air Canada; Pat McGeer, former provincial cabinet minister; Ted Rogers, president and CEO of Rogers Cablesystems Inc.; and John MacLean, executive vice president, systems of the Canadian Imperial Bank of Commerce.

The most recent guest speaker was Robert A. Ferchat, president of Northern Telecom Canada Ltd. His talk, entitled "Technological Change—Its Impact on Industry and Society" focussed on productivity, a component which he indicated was the key issue facing North American society.

Ferchat said that technological change and advancements are realities in any nation willing to pursue them, but that competition for customers and economic success will be won only by companies and nations dedicated to absolute excellence.

"The company, the managers, the employees and anyone who sees production in narrow, conventional terms puts themselves in direct jeopardy. They risk their employment and the economic health of our entire nation," he said.

Ferchat went on to link productivity with customer satisfaction. "Anything that a company and its employees do that enhances customer satisfaction or that provides new value to the customer—while maintaining product cost at a competitive level—is an act of improved productivity."

For more information on the breakfast series or upcoming speakers, contact the BCIT Community Relations Office at 432-8738. •

PRESIDENT MURRAY APPOINTED TO NATIONAL RESEARCH COUNCIL

The Honourable Frank Oberle, Minister of State for Science and Technology, has announced that BCIT President Roy Murray has been appointed to the National Research Council of Canada, effective April 1987 for a three-year term.

The NRC is the federal government's largest and most diversified laboratory research organization. Established in 1916, the council's role is to promote science and technology in Canada. It does this by promoting leading-edge research and development for industry, government and the scientific community, and by providing funding to companies adapting to new

technology. The council also operates Canada's National Science Library.

Members are responsible for developing and approving policy for the council and guiding plans and programs for effective use of an annual budget of \$400 million. President Murray is one of only two NRC members from British Columbia. •

BCIT JOINS TRIUMF

The Minister of Advanced Education and Job Training, Stanley Hagen, has announced that BCIT is to become an associate member of TRIUMF, the largest experimental particle physics research facility in Canada. Located on the University of British Columbia campus, TRIUMF is jointly owned by UBC, Simon Fraser University, the University of Victoria and the University of Alberta.

TRIUMF's experimental work with particle physics is responsible for introducing important new advances in the field of nuclear medicine. More than 50 BCIT grads are currently employed at the facility. •



Vancouver Community College President Paul Gallagher (left) and BCIT President Roy Murray signed a formal Protocol of Co-operation that will see the two institutions work together on areas of mutual benefit.

BCIT AND VANCOUVER COMMUNITY COLLEGE JOIN FORCES

BCIT and Vancouver Community College have formalized a co-operative agreement to join forces on a number of ventures.

The two institutions will work together on planning international education initiatives, developing library resources, and on language assessment of BCIT students by Vancouver Community College. They also plan to share BCIT's fund raising system. •



Premier Bill Vander Zalm (right) opens BCIT's new aviation hangar, which is the size of two office blocks. Standing by are BCIT President Roy Murray (left) and Kenneth Harding, member of the BCIT Board of Governors.

AVIATION HANGAR HERALDS NEW OPPORTUNITIES

Premier Bill Vander Zalm officially opened BCIT's new aviation hangar on April 27. Five hundred guests witnessed the event, among them aviation/aerospace personnel and provincial and federal government representatives.

The new expanded facility will house all the training aircraft as well as teaching and administrative space for the aviation/aerospace program. It will also allow BCIT to develop other programs such as short term courses for industry, host technical reps from companies, house meetings and stage minor

trade shows.

Among other plans for the new campus is a comprehensive library that accesses the Burnaby campus library. It will serve the needs of local aviation businesses as well as students and staff.

The hangar, which is roughly the size of two office blocks, was purchased from the former Pacific Western Airlines earlier this year. Owing to a cordial relationship with the company, BCIT was able to purchase the hangar well below the appraised market value. •



**BRITISH COLUMBIA
INSTITUTE OF TECHNOLOGY**

BCIT Connection

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