



BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

ANNUAL REVIEW 2008–2009

reflecting

president's message



BCIT: Integral to the economic, social and environmental prosperity of British Columbia.

That is our vision for BCIT. It is both a tribute to a proud past and a bold claim on the future. To advance that claim we undertook the development this past year of a strategic plan that will carry BCIT forward into the next decade and beyond. Through an open and inclusive planning process we engaged the BCIT community, gathering input from alumni, students, industry, faculty, and staff. The strategic plan lays out the priorities and directions for moving us forward.

BCIT is a responsive, innovative leader within the field of education. We anticipate future needs while continuing to deliver the quality hands-on instruction for which we are renowned. We continue to work with and respond to industry to ensure our training remains on the cutting edge of current practices. And we integrate applied research into our curriculum, conducting research that makes a tangible contribution to our society, and to our economy.

These are exciting times at BCIT. I hope you will join me in discovering what BCIT can mean to you and your future.

Sincerely,

A handwritten signature in dark ink that reads "D Wright". The signature is fluid and cursive.

DON WRIGHT, PRESIDENT,
BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

2008/2009 highlights

- › BCIT received \$39.1 million in government funding for the revitalization of the Burnaby Campus SW1 complex. The SW1 renewal project will bring expanded study and learning spaces for students, upgrades to classrooms and labs, as well as centralized student services and collaboration facilities to the Burnaby Campus.
- › BCIT Aircraft Maintenance and Avionics programs received EASA (European Aviation Safety Agency) approval, acknowledged as the highest aerospace certification standard in the world. This additional certification prepares students for work in any environment, anywhere in the world.
- › The ALS Society of BC's Excellence in Engineering Design Competition granted the "ALS Innovation Award" to two BCIT Biomedical Engineering Technology students, Manijeh Ghafourian and Mazyar Tabarestani. Manijeh and Mazyar were recognized for creating technology that will substantially improve the quality of life for people living with the disease.
- › Detailed architectural planning is underway for an Aboriginal Gathering Place on the Burnaby Campus. The facility will include a sweat lodge and a mini longhouse for ceremonies and celebrations.
- › BCIT acquired the lands and building of Mathissi Place, adjacent to the Burnaby Campus, to serve as a home to BCIT's Applied Research Liaison Office and act as a visible, readily accessible front door for organizations wanting to connect with BCIT's capabilities and resources.
- › BCIT began offering the full-time International Student Entry Program from the Downtown Campus. The program equips its students, whose first language is not English, with the language, academic, and technical skills required for entry and success with BCIT programs.



library responds to student needs

BCIT Library's Extended Hours Pod—otherwise known as the ehPod—was created in response to students' requests for extended access to study space and computer facilities. During the academic year, the ehPod, which includes 60 computer workstations and 11 group study rooms, stays open until 3:00 a.m., seven days a week. Launched in April 2008, it was an immediate hit with students.

The BCIT Library is the first post-secondary library in the province to provide late-night access to students throughout the entire academic year.

- › The BCIT Learning and Teaching Centre, BCIT Aerospace, and NGRain Corporation were granted funding from Inukshuk Wireless, an equally owned partnership of Bell Canada and Rogers Communications, to integrate rich, interactive media into the aerospace maintenance training curriculum. Currently, a 3D virtual turboprop engine is being developed for use in the Aircraft Gas Turbine Engine Technician program.
- › The School of Construction and the Environment received a \$500,000 donation from the Real Estate Foundation of British Columbia to establish the Real Estate Foundation of BC Endowment for the Adoption of Green Value Strategies in Development.
- › The Aerospace Technology Campus entered into a licensing agreement to provide the Saskatchewan Indian Institute of Technologies with the curriculum to teach its 16-month Aircraft Maintenance Engineering (Category M) diploma program.
- › 3 BLOG Nights saw staff from across BCIT perform 67 straight hours of live blogging and video shoots aimed at helping prospective students see, hear, and learn more about life at BCIT. Student recruitment events also included Big Info and Open House, which drew over 20,000 visitors.
- › The BCIT Technology Centre and BCIT Learning and Teaching Centre participated in the BC Canada Pavilion in Beijing during the 2008 Summer Olympics. The Pavilion provided BC public institutions the opportunity to meet prospective and existing partners from across China to pursue collaborative partnerships.
- › The School of Computing created a new Games Development option within its Computer Systems Technology degree program. The option was developed in response to industry needs.

virtual business hub provides real results for bc businesses

The BCIT Peter Thomson Centre for Venture Development has crafted and launched an innovative educational program that leverages cutting-edge technology and the marketplace's thirst for advanced practical content.

The program, called the Virtual Business Hub, provides BC businesses with industry training workshops via live-broadcast webinars. The webinars, which bring industry-leading presenters and technology together, are broadcast to a variety of BC businesses including Chambers of Commerce, municipal governments and other industry clients.

Unlike most webinars, which are often presented in only sound and PowerPoint configuration, the Virtual Business Hub allows participants to not only see the content or PowerPoint screen but also have a half-screen view of the live presenter, providing a much more engaging format. The video portion of the webinar is facilitated by a three-camera studio using professional-grade cameras, lighting and switching equipment.

During the webinar, participants can send in questions, which are answered in real time by the presenters. They can also dialogue with other webinar participants during the presentation. Each webinar is recorded and may be used for future audiences.

"The Virtual Business Hub allows BC businesses to access expertise and training that may be otherwise unavailable from a costing or time perspective," says Scott Armstrong, director of the Peter Thomson Centre for Venture Development. "Its level of interactivity and lack of the client requiring special software or equipment make it accessible to all."

SCOTT ARMSTRONG (LEFT) ENGAGES WITH BRADLEY SHENDE, CEO OF MEDIA20, DURING A LIVE-BROADCAST WEBINAR AT THE VIRTUAL BUSINESS HUB.



intelligent microgrid system is bc's first



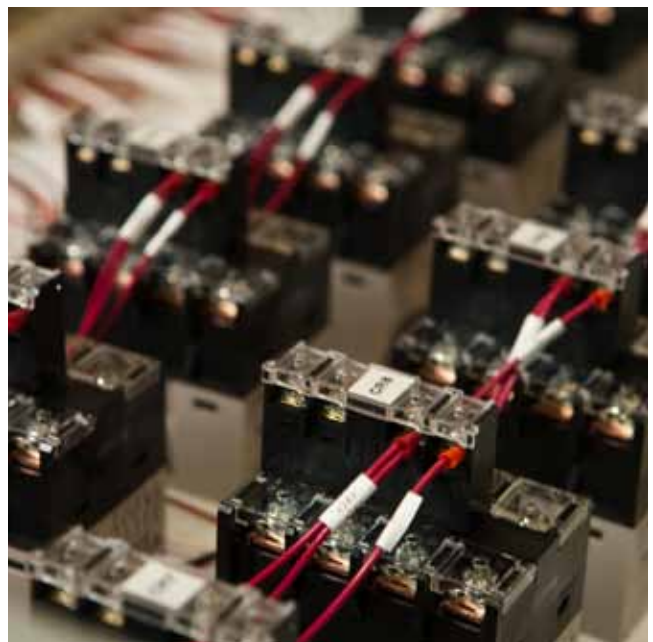
STUDENT RESEARCHERS JOCELYN WU (LEFT) AND CHRIS MORRISSEY ARE BUILDING LOAD CONTROL BOXES FOR INSTALLATION IN BCIT STUDENT RESIDENCES, ALLOWING THE RESIDENCE MANAGER TO REMOTELY MONITOR AND MANAGE HEAT AND HOT WATER USAGE.

BCIT received funding from BC's Innovative Clean Energy Fund and sponsorship from BC Hydro to set up BC's first intelligent electricity microgrid system within the Burnaby Campus. This new research project, led by the Group for Advanced Information Technology at the BCIT Technology Centre, focuses on developing solutions to automate the current electrical power grid of utilities and build a smarter, more secure power grid.

An intelligent grid will allow power devices to communicate through a central system, making "smart" decisions to optimize power distribution and transmission. An intelligent grid will help to balance power generation with demand, reducing the potential for blackouts. It will also be able to integrate current energy sources such as hydro or natural gas with alternative energy sources such as biomass, solar, and wind plants.

The initial phase of the project includes installing smart meters, sensors, and controls on campus. A web-based Energy Management System will monitor these devices, enabling active management of power by helping to time demand cycles to coincide with off-peak resources.

The project will contribute to research and development of energy sector technologies that will tell us when the cheapest or cleanest power is available. This will allow us to change our household energy consumption patterns to reduce our costs and our carbon footprint.





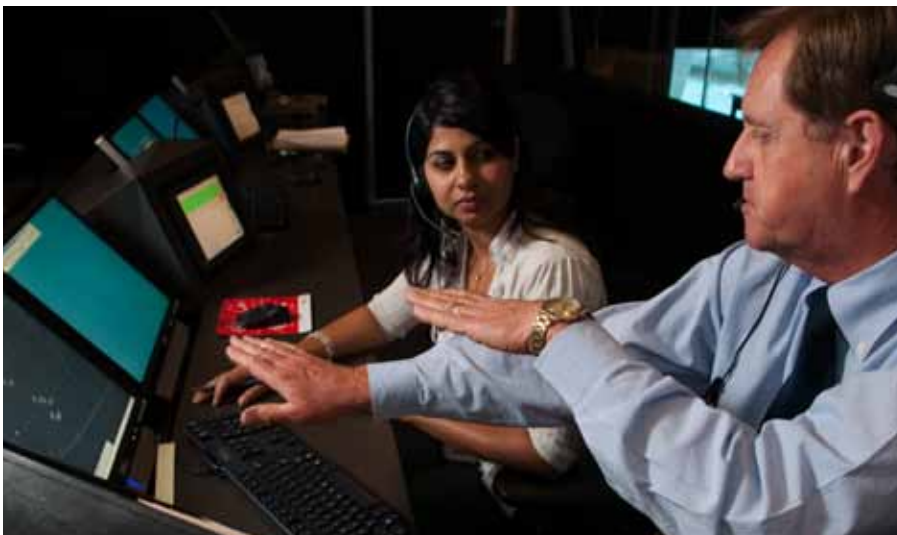
new air traffic control tower simulator

3D visual tower simulation technology offers new training capabilities

BCIT's state-of-the-art Aerospace Technology Campus is now home to an air traffic control tower simulator. The virtual control tower has an "out of the window" display and virtual radar simulation that mirrors both enroute and terminal air traffic control environments. It provides the most modern, cost effective air traffic controller training available today. BCIT is the first post-secondary institution in Canada to have 3D visual tower simulation technology.

A partnership with Raytheon Canada Limited, BCIT, and the federal government provided BCIT Aerospace with *FIRSTplus*, a sophisticated air traffic control training tool. This platform allows BCIT the capacity to offer highly integrated air traffic management programs at the leading edge of technology.

Students from the Airline and Flight Operations and Airport Operations programs will begin training on the simulator in the fall of 2009.



ABOVE: THE SIMULATOR'S "OUT OF THE WINDOW" DISPLAY MIMICS REAL-LIFE AIR TRAFFIC CONTROL ENVIRONMENTS.

LEFT: THE SIMULATOR PROVIDES UNPARALLELED TRAINING OPPORTUNITIES FOR BCIT AEROSPACE STUDENTS.



forensic video technology lab is first of its kind

BCIT's new Forensic Video and Surveillance Technology lab opened in the spring of 2008. The lab provides specialized forensic video analysis, digital imaging, and surveillance technology-based training. It is the only forensic video training and research lab of its kind in Canada.

"Surveillance video is now the most common form of forensic evidence left at crime scenes," says Dave McKay, former RCMP forensic video analyst and manager of the lab. "Like all other forms of forensic evidence, this data needs to be analyzed, interpreted, and processed thoroughly."

The facility offers courses in forensic video technologies and analysis to students completing the Bachelor of Technology degree program or Advanced Specialty Certificate in Forensic Investigation. It also facilitates technology-based research initiatives for students undertaking graduation research projects, provides litigation support for those involved with civil or criminal cases where video or photographic evidence is concerned, and offers specialized training to meet the needs of law enforcement, security personnel, investigators, and others involved in the criminal justice system.

Additionally, the lab's research initiatives include working with community partners, like the RCMP, to further develop video technology-based solutions to assist in crime prevention, detection, and prosecution.



BCIT'S DAVE MCKAY OFFERS INSTRUCTION
IN FORENSIC VIDEO TECHNOLOGY.

\$1.7 million in funding supports school of health sciences programs



The School of Health Sciences received \$1.7 million in provincial government funding to support programs training students in disciplines facing a critical shortage of workers.

The one-time grant will support the expansion of the Medical Radiography Technology and Medical Laboratory Technology diploma programs; the development of a Cardiovascular Perfusion program; and a review of the Environmental Health—Public Health Inspector program. In addition, the School of Health Sciences also received \$965,893 to develop courses in reproductive health for the Specialty Nursing program, and for ongoing implementation and development of the three-year Nursing program.

“This investment in BCIT’s health sciences programs will greatly enhance our ability to help address shortages in the province,” says Kathy Kinloch, dean of the School of Health Sciences. “Commitments like this play an integral role in addressing the gaps in training and we are proud to play our part.”



rivers institute at bcit

The Rivers Institute at BCIT will unite the public in an effort to protect the world's rivers, increase public awareness about the importance of our waterways, conduct state-of-the-art river-related research, and provide financial support to students with an interest in river conservation. It is the first entity of its kind in British Columbia.

Through a generous \$1 million donation from environmental philanthropist Rudy North, president and founder of North Growth Management Ltd., the Rivers Institute will play a leadership and science-based role in key river management issues while partnering with existing BCIT programs such as Fish, Wildlife, and Recreation, Environmental Engineering, and Canada's first stand-alone Ecological Restoration degree.

The Rivers Institute will be led by Order of Canada recipient Mark Angelo as the Rudy North Chair in River Ecology, the first such position in Canada. As program head of the BCIT Fish, Wildlife and Recreation program, Mark brought attention to the critical importance of healthy waterways, founded both BC and World Rivers Days, and inspired thousands of BCIT students and stakeholders throughout his 35 years at BCIT.

MARK ANGELO (CENTRE) WATCHES AS CHILDREN RELEASE CUTTHROAT TROUT FRY AT BCIT'S GUICHON CREEK ON WORLD RIVERS DAY.

bcit students take top spots in skills canada competition

Jordan Brooke and Michael Kleywegt took top honours at the Skills Canada competition in Charlottetown, PEI. Jordan, a third-year apprentice in the Millwright apprenticeship program took gold, while Michael, a student in his final term of the CNC Machinist Technician program, went home with the silver medal.

Skills Canada is the only national, Olympic-style, multi-trade and technology competition for young students and apprentices in the country. The event brings together approximately 500 of Canada's best and brightest to compete in over 40 skilled trade and technology categories. The competition provides an opportunity for students to be tested against exacting industry standards and against their peers from across the nation in their chosen discipline.

Winning a national competition doesn't seem to have fazed Jordan, who aspires to go as far as he can with his training as a millwright. "I just want to take advantage of every opportunity that comes up," he says. In high school, Jordan chose technical classes such as welding and automotive as well as academic classes. "Everything seemed to point me to this."

He's glad it did. "I've got my dream job," says Jordan. "I love what I do."



JORDAN BROOKE WON GOLD IN A NATIONAL COMPETITION.

Programs

BCIT has more than 400 full-time, part-time, distance, and online learning programs:

- › Applied and Natural Sciences
- › Business and Media
- › Computing and Information Technology
- › Engineering and Technical Studies
- › Health Sciences
- › Trades, Vocational and Apprenticeship

BCIT offers credentials in four broad categories:

- › Certificates (associate, management, post-diploma, post-graduate)
- › Diplomas (technology, technical studies, trades training)
- › Undergraduate degrees (technology, engineering, business administration, science, science in nursing)
- › Graduate degrees (master's)

People

- › BCIT has approximately 48,200 full-time and part-time students, 2,250 faculty and staff, five campuses, and an annual budget of \$251 million
- › BCIT has more than 128,000 alumni
- › Approximately 5,000 students graduate from BCIT each year

A high percentage of BCIT graduates find employment. In 2008:

- › 87% employment rate for certificate and diploma program graduates, and 98% employment rate for degree program graduates
- › More than 95% were satisfied with their BCIT education
- › Annual starting salary: \$42,000 for certificate and diploma programs and \$60,000 for degree programs

2008/2009

STUDENT ENROLMENT



- 63.2% PART-TIME CERTIFICATE/DIPLOMA/UNDECLARED
- 13.1% FULL-TIME APPRENTICE
- 10.3% FULL-TIME VOCATIONAL DIPLOMA/CERTIFICATE
- 8.8% FULL-TIME DIPLOMA/CERTIFICATE
- 2.4% FULL-TIME DEGREE
- 2.3% PART-TIME DEGREE

TOTAL NUMBER OF STUDENTS: 48,224

SOURCES OF INSTITUTE REVENUE



- 41% BC MINISTRY OF ADVANCED EDUCATION
- 31% TUITION AND FEES
- 8% INDUSTRY TRAINING AUTHORITY
- 6% INDUSTRY SERVICES
- 6% ANCILLARY
- 8% OTHER

TOTAL REVENUE: \$251 MILLION

AREAS OF INSTITUTE EXPENSES



- 64% SALARIES AND BENEFITS
- 9% DEPRECIATION
- 5% FEES FOR SERVICE
- 5% REPAIRS, MAINTENANCE
- 4% SUPPLIES
- 3% PROFESSIONAL DEVELOPMENT
- 1% STUDENT AWARDS
- 1% PRINTING, MARKETING AND PROMOTION
- 8% OTHER

TOTAL EXPENSES: \$263 MILLION

board of governors

July 2009

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About BCIT

BCIT is one of British Columbia's largest post-secondary institutes and has served British Columbia for over 40 years. We provide industry-relevant education, supply the labour market with highly skilled graduates, and conduct applied research that addresses industry challenges.

Campuses

- › Burnaby Campus houses 60 buildings on 158 acres
- › Downtown Campus in the heart of Vancouver's business district
- › Marine Campus on the North Vancouver waterfront
- › Aerospace Technology Campus in Richmond houses our fleet of 20 aircraft
- › Great Northern Way Campus in Vancouver (in partnership with Emily Carr University of Art and Design, Simon Fraser University and University of British Columbia)



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