

# 2016: Alberta celebrates two Advanced Education Milestones

By **Terrance Malkinson**

In 2016, two of Alberta’s major post-secondary education institutions reached important milestones. The Southern Alberta Institute of Technology celebrated its 100th anniversary and the University of Calgary celebrated its 50th anniversary. The history of these two institutions is intertwined and today, together, both educational providers offer a comprehensive and complementary package of education opportunities to meet the demands of today’s business market. Indeed, the educational paths of many skilled workers include credentials from both institutions. Students often find that the more theoretical and basic education that they receive from the University when accompanied by the hands-on applied polytechnical education at SAIT are a perfect combination for lifelong career success.

## SAIT 100th anniversary



Photo: SAIT

SAIT’s President and CEO Dr. David Ross welcomes the public, staff, students and alumni to SAIT’s centennial celebrations.

The Southern Alberta Institute of Technology ([www.sait.ca](http://www.sait.ca)) has a remarkable history that began in 1916 with its creation as the Provincial Institute of Technology and Art (PITA) in downtown Calgary. Eleven students attended hands-on sessions in motor mechanics and metal working—gaining the skills to meet practical needs of employers.

One hundred years later, roughly 35,000 applicants vie each year for spaces in eight academic schools: Business, Construction, Energy, Health & Public Safety, Hospitality & Tourism, Information and Communications Technologies, Manufacturing & Automation, and Transportation. Valued partners from business and industry serve on SAIT’s program advisory committees, ensuring

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## University of Calgary 50th anniversary

The University of Calgary [[www.ucalgary.ca](http://www.ucalgary.ca)] was established in 1966, but its roots date back to the establishment of the Normal School in downtown Calgary in 1905 that trained primary and secondary school teachers. In 1922 the Calgary Normal School relocated to the campus of the newly built Provincial Institute of Technology and Art (PITA). Groundbreaking for a University campus was held in November 1958. In the fall of 1960 classes moved from the Provincial Institute of Technology and Art to the new 300-acre campus in two buildings: Arts and Education, and Science and Engineering. A strong movement emerged in Calgary to lobby for the creation of an autonomous university. This campaign reached its goal in 1966 with the establishment of the University of Calgary. Herbert Stoker Armstrong was installed as



Photo: University of Calgary

University of Calgary under construction.

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students continue to receive hands-on, practical training that reflects the current and future needs of the workplace. In all programs there are many more applicants than spaces available.

Surveys regularly reveal that over 90% of graduates obtain employment upon graduation; and 80% of those are employed in positions related to their training. Employer surveys reveal that 99% of employers said they would hire a SAIT graduate again. SAIT has been chosen as one of Alberta's top employers five times. Over \$3.9M is dispersed annually to students through more than 3,600 awards, bursaries and scholarships. Today, SAIT offers day-time programs; apprenticeship programs and earned revenue credit and non-credit programs as well as numerous corporate training offerings. To help prepare newcomers to Canada to succeed in its programs, English language foundations and academic upgrading are also offered.

## SAIT Polytechnic education is characterized by:

- Close ties with business and industry to ensure programs reflect needs of the workplace; seven Centers of Technology have been established through these partnerships.
- Diverse programming in technical, business and creative fields, with a balance of skills-based and theoretical learning.
- A range of credentials from certificates and apprenticeships to bachelor degrees, and options to obtain professional credentials.
- Opportunities for students to participate in applied research and projects with industry.

SAIT was a founding sponsor of WorldSkills Calgary 2009 — an international student competition devoted to raising awareness that the skilled trades and technologies are vital to the global economy. Some 150,000 visitors attended WorldSkills 2009. The SAIT campus served as the Competitors' Village.

Looking to the future SAIT's President and CEO Dr. David Ross knows the institution is already a leader in hands-on learning — but he wants to take that to



Photo: SAIT

Dr. David Ross, Calgary Mayor Naheed Nenshi and Students Association President Gar Gar display some of the items buried in a Time Capsule.

the next level. SAIT's 2015-2020 Strategic Plan — Think Big. Think Applied Education outlines the path forward. Key performance drivers include:

- **Setting the standard for academic excellence.**
- **Focusing on an engaging learner experience.**
- **Delivering market-focused services and access.**
- **Building community connections.**
- **Improving processes and infrastructure.**
- **Recruiting high-performing instructors; many of whom have industry experience.**

SAIT alumni say what they enjoyed most about their SAIT education was the smaller class size: 1:20 faculty-student ratio. Another is the outstanding relationship between industry, instructors and students.

**“ Applied education offers students the chance to graduate not only with the theoretical knowledge which often has been the basis for most credentials – but also the practice. Our students take the information learned in the classroom and practice it before they leave. The result of that combination is a very valuable graduate. ”**

**Dr. David Ross** President and CEO SAIT

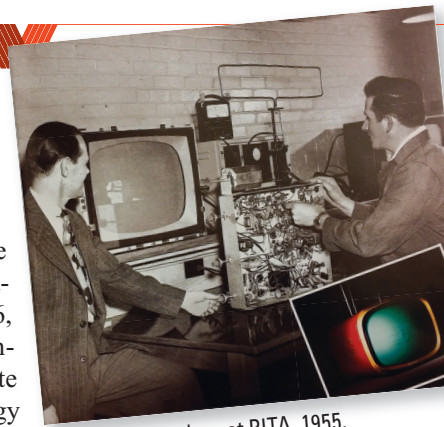
## SAIT looking back

At the time of its founding in 1916, the Provincial Institute of Technology and Art (PITA) was

Canada's only publicly-funded technical institute. Just two years later, the country would begin to make the needed social adjustments following the end of World War I. Uniquely qualified, PITA was engaged in training returning soldiers. The Institute moved to its present-day SAIT campus overlooking downtown Calgary in 1922 with the completion of a three-story red brick and sandstone building—now known as Heritage Hall. Heritage Hall was designated a provincial historic resource in 1985 and a national historic site in 1989.

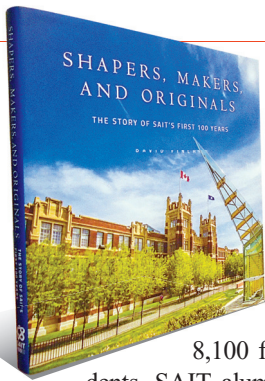
Shortly after the outbreak of World War II, PITA began delivering courses under the Federal War Emergency Training Program. Classes ran around the clock to accommodate regular students as well as vocational training for the armed forces. In 1940, PITA's facilities were used by the Royal Canadian Air Force and served as the No. 2 Wireless Training School for the Commonwealth Air Training Plan. Classes resumed on campus in 1946, followed by infrastructure and enrollment growth to meet the need for a skilled workforce. Apprenticeship training began in 1948, with 42 apprentices enrolled in auto body repair. Eight years later, 1,710 apprentices were enrolled in six programs. In 1960, PITA was renamed the Southern Alberta Institute of Technology (SAIT). During the 1988 Winter Olympics, the SAIT student residence housed athletes and games officials from around the world. Many SAIT staff and students were involved as volunteers with the Olympics and received a unique practical learning experience.

In 2003, SAIT became a founding member of Polytechnics Canada [www.polytechnicscanada.ca] and was rebranded as SAIT Polytechnic in 2004. On Sept. 5, 2012, SAIT officially opened the 740,000 sq. ft. Trades and Technology Complex, which consists of three award-winning buildings - the Aldred Centre, Cenovus Energy Centre and Johnson-Cobbe



First TV repair class at PITA, 1955.  
Photo: SAIT





Energy Centre. The \$400-million expansion project was the largest in SAIT's history, adding capacity for an additional 8,100 full- and part-time students. SAIT alumni and staff, industry, and generous philanthropists who understood the value of a high-technology, business focused applied education, and career-ready graduates contributed to this expansion. There are over 220,000 alumni employed in every region of the world. Demand for SAIT's innovative approach to applied education continues to grow.

In this its centennial year, SAIT Polytechnic in addition to numerous events, published a commemorative book *Shapers, Makers, and Originals* authored by Historian David Finch. Available from the SAIT bookstore this 154-page book provides a wealth of material and archival photographs of the Polytechnic. ■

## Advanced education in Alberta Integrated approach creates collaboration

Alberta Advanced Education [www.eae.alberta.ca/ministry/about.aspx ] focuses on the province's adult learning programs which include twenty-six post-secondary institutions, apprenticeship and industry training, community adult learning, and student-aid programs. The diversity of education options removes barriers and unleashes the potential of all citizens, making Canada strong and competitive in today's global environment and making the world a better place for all. Education ensures that the Canadian workforce is current, highly-skilled and productive; creating engaged, empowered and socially-conscious citizens who contribute to their communities and the world.

One example of the collaborative nature of post-secondary learning is a new and innovative approach to inter-professional education between University of Calgary medical students and SAIT medical sonography technology students. In an afternoon session students from both institutions interacted and learned from each other. In particular this approach breaks down barriers that commonly exist in the medical system by facilitating communication and in the end improves the patients experience and outcomes during their medical treatment. It is hoped that this type of learning can be expanded to other programs and be mutually beneficial to both institutions.

## Continuous University and Polytechnic Education: A Personal Journey to Success

Education has been a passion of mine throughout my career and has resulted in a life journey for which I have no regrets and a legacy that I take pride in.

Elementary, junior and high-school education in Calgary followed the traditional practices of the time that focused on broad-based, timeless and essential learnings for life. Government examinations were required for graduation from Junior and Senior High School. Recognizing the value of post-secondary education the chosen provider was the University of Calgary and after multiple re-examinations I was able to increase my high-school grades to the minimum level for admission. Working during the summers at a local golf course provided funds for tuition and left a little money over to travel to England and Europe several times as an energetic, adventurous and curious solo vagabond; experiencing and learning from other cultures.

Once graduating from University with a B.Sc. again with the minimum grade point average I was the beneficiary of a fortuitous event—the opening of the University of Cal-



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gary's Faculty of Medicine. With nothing more than a general inquiry as to whether there might be employment opportunities for someone like myself. I received an immediate offer of employment which began a 26-year career, starting as a technician and advancing to the most senior position on the technical career ladder in basic and applied medical research. Looking back, I was extremely fortunate to be supervised by professionals who so clearly understood the nuances of research and mentored me on how to be successful. They were also very gifted research leaders allowing me the freedom to pursue scientific investigation unencumbered, resulting in many significant advances in scientific knowledge and receipt of numerous awards. I continued my pursuit of continuing education in the evenings taking a plethora of programs. These included university, and polytechnical programs in Calgary and at institutions such as the Massachusetts Institute of Technology, and the University of California to name but a few.

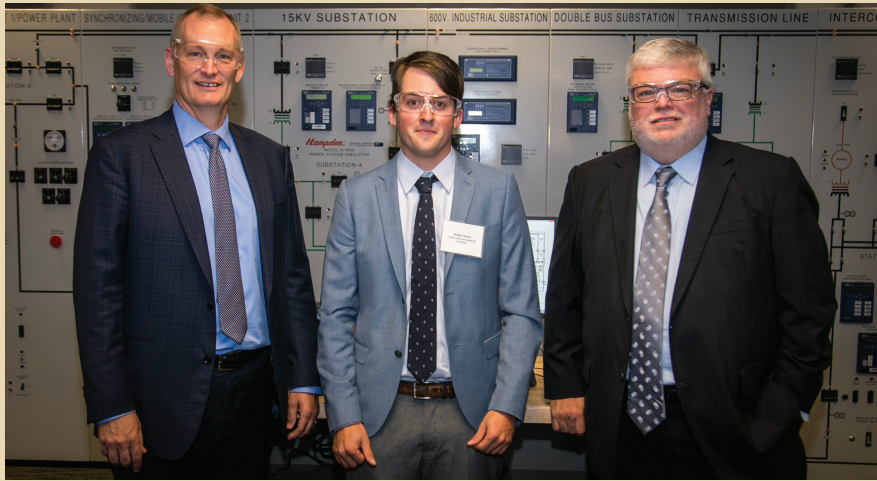
Then in 1998, the provincial government became obsessed with deficit reduction resulting in the abolishment of many positions in the public sector and I was one of the victims of what has proven to be disastrous public policy. This was a very difficult time to suddenly lose a job that I was very good at, be separated from associates that were important to me, and with little prospects of employment at the age of 50. However believing in myself I saw this as an opportunity to pursue activities that I had sacrificed in my early years. One of these was particularly life-changing; participation in Outward Bound Canada leadership development programs which brought my life back into focus. I completed an applied Degree in Information Technology from SAIT Polytechnic. Once again upon graduation I was the beneficiary of a fortuitous event—employment with General Electric, an awesome and demanding organization. Again, I was fortunate to have the benefit of an excellent supervisor who believed in me.

Upon my choice to take early retirement my passion for self-development through continuing university and polytechnical education continues, as well as mentoring the next generation through example, discussion and as a philanthropist funding a number of annual and legacy student awards at SAIT Polytechnic. My interest in research continues to

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## AltaLink donates power system simulator to SAIT



(L to R) Scott Thon, President and CEO of AltaLink; SAIT Electrical Engineering Technology student Braden Hanna; and Dr. David Ross, SAIT President and CEO; pose in front of SAIT's new leading-edge power system simulator funded by AltaLink.

One of many examples of the importance that industry has to SAIT graduates is a recent (September 15, 2016) \$760,000 donation by AltaLink that makes possible a new learning tool for Electrical Engineering Technology students. A new leading-edge power system simulator funded by AltaLink, provides a unique learning experience for students, giving them an unprecedented career-ready experience.

"It's another first for SAIT," says Dr. David Ross, SAIT President and CEO. "AltaLink is a tremendous partner who believes in action-based learning. Thanks to them, this generous gift will help ensure our students have relevant job experience that gives them a competitive advantage. With the power system simulator our graduates will be career ready with the skills today's industry demands."

By modeling the management of electricity from a variety of energy sources including wind, solar, natural gas, coal and nuclear, students are able to simulate various electrical scenarios. Using realistic and real-time scenarios, the simulator and supporting curricu-

lum teaches students how to expertly deliver power to industrial, commercial and residential consumers in a way that's safe and cost effective. Additionally, students will be able to simulate the incorporation of intermittent, renewable sources of generation, like wind and solar, while maintaining grid stability.

"We couldn't be more pleased to be able to support SAIT's students and prepare them for a career in the electrical industry," said Scott Thon, President and CEO of AltaLink. "As our province shifts to a greener future, technology such as the AltaLink power system simulator will help us understand how the grid can enable our transition to renewables and position our province as a leader in the energy sector."

The AltaLink simulator is housed in SAIT's MacPhail School of Energy — the first school of energy in Canada and one of only a handful of energy schools in North America. The power system simulator is added to SAIT's roster of high-tech, hands-on learning tools, which includes printing, drilling, crane and health care patient simulators.

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this day with self-funded basic and applied research projects and achieving a current lifetime total of 550 earned peer-reviewed original publications. Maintaining health and wellness is a critical factor to good aging and I engage in exercise daily having completed eleven Ironman Triathlons.

Aging brings wisdom, and reflection on what is important in life. What I have learned is the importance of a broad-based University and polytechnical education and a diversity of life experiences. Believing in

one-self and having the strength, courage and determination to determine and follow your own path. I am incredibly grateful to those individuals who made the choice to believe in me. I certainly recognize the beneficial knowledge diversity obtained through both a university and polytechnical education. This was not the easy path that resulted in financial wealth; but rather a path to a complete life and when this life nears its end a sense of satisfaction and a legacy of contributions that have made the world hopefully a slightly better place. ■

the first President and Vice-Chancellor of the University of Calgary on April 16. The President held a strong belief that "although the university is accountable to the society that supports it, the university must insist on playing a leadership role in intellectual matters if it is to be worthy of the name."

Today the University of Calgary attracts and nurtures talent that drives new knowledge creation, improves lives and betters our world. In this rich learning environment, the university serves over 31,000 students in more than 200 undergraduate, graduate and professional degree programs, and provides the community with diverse lifelong learning opportunities. International study, volunteer, work, and research programs provide global context while promoting diversity and excellence in learning, teaching and research.

The University of Calgary is Canada's leading next-generation university — a living, growing and youthful institution that embraces change and opportunity with a can-do attitude. Located in an entrepreneurial city, the university has a clear strategic direction — Eyes High [[www.ucalgary.ca/eyeshigh](http://www.ucalgary.ca/eyeshigh)] — to become one of Canada's top five research universities grounded in innovative learning and teaching and integrated with the community. The Strategic Research Plan [[www.ucalgary.ca/research](http://www.ucalgary.ca/research)] identifies three major priorities that will guide the university towards its goal: 1). matching University strengths with opportunities, 2). increasing its research capacity, and 3). creating a dynamic research environment to promote research excellence.

As a comprehensive academic and research institution, the University of Calgary inspires and supports discovery, creativity and innovation across all disciplines. Through the new Taylor Institute for Teaching and Learning, the university is a leader in educational innovation by researching the most effective methods for engaging students and by supporting faculty to be the best teachers they can be. ■

### Acknowledgements

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