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## ABOUT WFCP

The World Federation of Colleges and Polytechnics (WFCP) is a member-based international network of colleges, polytechnics, university colleges, institutions and individuals of professional and technical education and training. The Federation provides leadership in delivering workforce education for the global economy.

The WFCP began as an informal network borne out of a desire to have a forum for the almost 4,000 professional and technical education and training institutions around the world to meet regularly, learn from each other, and share experiences. The first meeting was held in 1999 in Quebec City, Canada along with the first World Congress of the WFCP and officially formalized as a network in 2002 with the 2nd World Congress held in Melbourne, Australia.

Today, the Federation represents colleges, institutes, associations and polytechnics, united by the mandate to prepare students for complex professional roles in a changing society so that they can emerge as leaders and innovators in their chosen careers.

### **Acting as the united voice for its members, the Federation enables:**

- Promotion of its members to their communities;
- Influence on the development of policy;
- Access to information and experiences that allow each to learn from each other;
- Sharing best practices;
- Offering of an online community;
- Promotion of partnerships to improve staff and student mobility;
- Development of partnerships to deliver international contracts;
- Organization of the bi-annual World Congress to enable knowledge exchange; and,
- Positioning of its members on crucial issues such as inclusiveness, expectations of excellence in professional and technical education and training.

**To learn more about the WFCP and how to become a member, please visit [wfc.org](http://wfc.org)**



**WFCP**

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# INTRODUCTION

The World Federation of Colleges and Polytechnics is pleased to present the fifth World's Best Practice Guide in Professional and Technical Education and Training. As with the previous editions, the fifth edition features award winning institutions, individuals and programs engaged in professional and technical education and training (PTET) from around the world.

The entries are provided by the 2023 recipients of the WFCP's Awards of Excellence, in thirteen categories. The Guide demonstrates the responsiveness, innovation, and focus of Federation members; it is designed to offer guidance to other actors in PTET as they embark on their own projects to enhance the education they offer and the learning their students receive.

Common among this year's entries is a sense of change around the world and its impact on PTET. Cutting-edge technology is embraced in projects and classrooms to ensure that students are prepared to weather the storm of a globally changing marketplace. Institutions are engaging in applied research, in an effort for students to gain valuable skills, as well as contribute to the local and global economy. Entrepreneurship and innovation is imbedded into curricula, as demand for soft skills to complement higher technical skills grows.

Students are central to the Guide's entries. Underneath the organization and individual award category descriptions, and the logistical know-how, is the implicit idea that those being recognized have embarked on their projects to enhance the lives of students and their learning opportunities.

The entries of the fifth World's Best Practice Guide in Professional and Technical Education and Training brim with inspiration and innovation. We trust that as you, or your institution or organization embark on similar projects, adopt similar models, or develop similar individuals, these entries will offer guidance and real know-how to ensure your own success.



# AWARD CATEGORIES

## **Applied Research and Innovation Award**

recognizes an institution or institutional association that has demonstrated excellence in addressing real-world challenges through applied research.

**Construction Award** recognizes an institution/organization that has demonstrated excellence in the development and delivery of modern construction practices that ensure effective and efficient future focused construction project delivery which considers the future sustainability ambitions and needs of this sector.

**Cyber and Data Security and Social Engineering Award** recognizes an institution/organization that has demonstrated excellence in the innovative application and use of technology, training/development and developed personal practice to protect systems, data and individuals from the increasing global threat posed by professional and criminal cyber security attacks.

**Global Citizenship Award** recognizes an institution or institutional association that has demonstrated its commitment to providing the best experiences and exemplary strategies and tools to prepare students for global citizenship.

**Indigenous Education Award** recognizes an institution or institutional association that has demonstrated its commitment to Indigenous learners and communities and to advocacy priorities and positions related to Indigenous education and skills development.

**Strategic Leadership Award** recognizes an institution or institutional association that has demonstrated excellence in leading professional and technical education and training.

**Sustainable Development Goals Award** recognizes an institution or institutional association that has demonstrated excellence in advancing environmental sustainability through knowledge, tools, practices, and technologies.

## **Teacher Professional Development Award**

recognizes an institution or institutional association that has demonstrated excellence in teacher professional development.

**Tourism and Hospitality Award** recognizes an institution or institutional association that has demonstrated excellence in tourism and hospitality.

## **Leadership in Diversity and Inclusion Award**

seeks to recognize a WFCP leader who has exhibited an outstanding commitment to equity, diversity and inclusion and has demonstrated exemplary contributions to developing a diverse and welcoming culture where everyone can thrive.

**Lifetime Achievement Award** celebrates a leader of a WFCP member organization (membership body or institution) who has dedicated many years (8 or more) to serving the technical, vocational, and professional education sector. It will be given to the individual who, in the opinion of the judging panel, deserves to be honored for his or her contribution to TVET in honor of service and contribution to the college and institute system nationally and internationally.

**Outstanding Educator Award** seeks to reward the individual whose passion, knowledge and skills have inspired student's success and who has made a major contribution to educational life within an institution. It is open to anyone working as an educator in a WFCP member institution. Only one member of staff can be nominated from any one institution.

**Student Achievement Award** is open for nomination by all WFCP members and recognizes outstanding individual achievements or contributions that have an internal impact on their institution and on their community.



# APPLIED RESEARCH & INNOVATION



## GOLD AWARD: APPLIED RESEARCH AND INNOVATION

**NAME OF INSTITUTION:** Holmesglen Institute

**CATEGORY:** Applied Research and Innovation

**COUNTRY:** Australia

### INTRODUCTION

Holmesglen is a leading Australian provider of vocational and higher education and one of the largest government-owned TAFEs in the state of Victoria. With 40 years' experience and more than 150,000 graduates, we are TAFE at its best. We offer nationally accredited certificates, diplomas, and degrees as well as customised education and training programs on campus, in the workplace, in our offshore partners and increasingly through hybrid and online delivery.

Today we operate from six major campuses in Melbourne and its south-east, our regional learning centre in Eildon, numerous workplaces in Australia, our off-shore educational partners and project postings and online platforms to learners located across the globe. Operating in an industry-led education and training sector, Holmesglen's partnerships and community links have been paramount to our success. Our partnership with Healthscope and the Holmesglen Private Hospital was established at our Moorabbin campus in 2017. In 2018 it won the 2018 Industry Collaboration Award at the Victorian Training Awards. The hospital is a key part of our health education precinct, which also includes our internationally recognised simulation centre, nursing and allied health teaching facilities and a Breast Screening clinic. Our enduring educational and commercial partnerships are a defining feature of our approach to sustainability and achieving educational excellence.

**We are renowned for our connections to industry and community:**

- Our Holmesglen Private Hospital is an Australian TAFE-first
- Our Integrated Practical Placement Program for youth with disability is an Australian first
- Our Centre for Applied Research and Innovation is leading the sector in engaging with industry and the community to solve real world problems, including our participation in the Building 4.0 Cooperative Research Centre
- Our Foundation delivers over \$900,000 annually in

scholarships and bursaries to support our students remain engaged in learning through our advancement program

- Our \$16 million Victorian Tunnelling Centre is training thousands of Victorians as the state delivers one of the greatest infrastructure booms in Australia's history. We are also a four-time Victorian Training Awards Industry Collaboration Award recipient:
- 2021 winner with CYP Design and Construction
- 2019 winner with The Royal Children's Hospital (This program went on to win the 2019 Australian Industry Collaboration award)
- 2018 winner with Holmesglen Private Hospital
- 2017 winner with Futuretech Holmesglen's reputation for excellence is well-established, including recognition at the state, national and global level:
- 2022 Victorian Training Awards Apprentice of the Year and runner up at the Australian Training Awards for Chhunly Taing
- 2021-2022 Premier's Award, International Student of the Year and International Student of the Year – Higher Education for Divyangana Sharma (Nursing)

### AWARD-WINNING INSTITUTION

This nomination focuses on the outstanding contributions in applied research from our largest faculty-Health Sciences. It represents work undertaken by a small team under the leadership of an Australian first appointment in TAFE - a Professorial Clinical Chair. Jointly funded by Holmesglen and industry partner Healthscope Hospitals, the Clinical Chair and her team have been at the forefront of applied research endeavour at the institute. The team have been awarded significant national and state funding to lead research projects over 3 years, four of which are included in this nomination. The fruits of these projects have culminated in outstanding research outcomes that have left their mark on students, teachers and the community.



**COIL:** A unique partnership with Northwestern Polytechnic (NWP) in Alberta, Canada saw the development of a Collaborative Online International Learning (COIL) program. A world first in nursing, this research aimed to (i) Deepen global engagement of place bound students and faculty, (ii) Enable students and faculty to work collaboratively to address global issues, (iii) Promote cultural awareness, (iv) Foster an appreciation of cultural diversity, and (v) Promote international education and research collaboration.

**Hospital Falls:** The Holmesglen team were selected to work with national and internationally acclaimed researchers to secure a prestigious National Health & Medical Research Council Grant to investigate Falls in Australian Hospitals. With a focus on patient and clinician education for the prevention and management of falls, this work has produced far reaching benefits to patients, clinicians and healthcare students across the globe.

**JasperVR:** Over a 2-year period, an innovative virtual reality (VR) program was produced, implemented and trialled with nursing students at Holmesglen. The aim was to create and investigate authentic VR scenarios and a software application. Each was compared to traditional simulated learning in a randomised controlled trial. Results indicated significantly positive outcomes on the capacity of the VR experience to impact positively on student learning and to prepare them for future work.

**Integrated Practical Placement (IPP) Program:** This was another Australian first aimed at providing a structured study program for students with learning disability to assist them to transition into paid employment. Securing partnerships with two large public hospitals and a local city council in Melbourne, the research outcomes showed a high percentage of young people securing meaningful employment. Given the success of this work, national funding was awarded in 2021 and 2022 to expand the program to other TAFE providers in Victoria and to lead a new body of work to build employer confidence and capability in the local community.

Barriers to success have included our inability to access research resources and expertise within the vocational training sector and difficulties with recruitment.

## RESULTS AND ACCOMPLISHMENTS

Collectively, our achievements fall into 6 categories:

**1. Research Projects:** For COIL, we successfully developed four research interventions:

- a) an online virtual community to allow students and teachers to communicate, socially connect and share resources;
- b) 5 VR simulations;
- c) a virtual global classroom that promoted collaborative intercultural learning, and
- d) a virtual community of practice for teachers to collaborate on research. 25 faculty members have been involved. Additionally, we collaborated with the First Nations people of Canada to co-design the VR Indigenous health scenario.

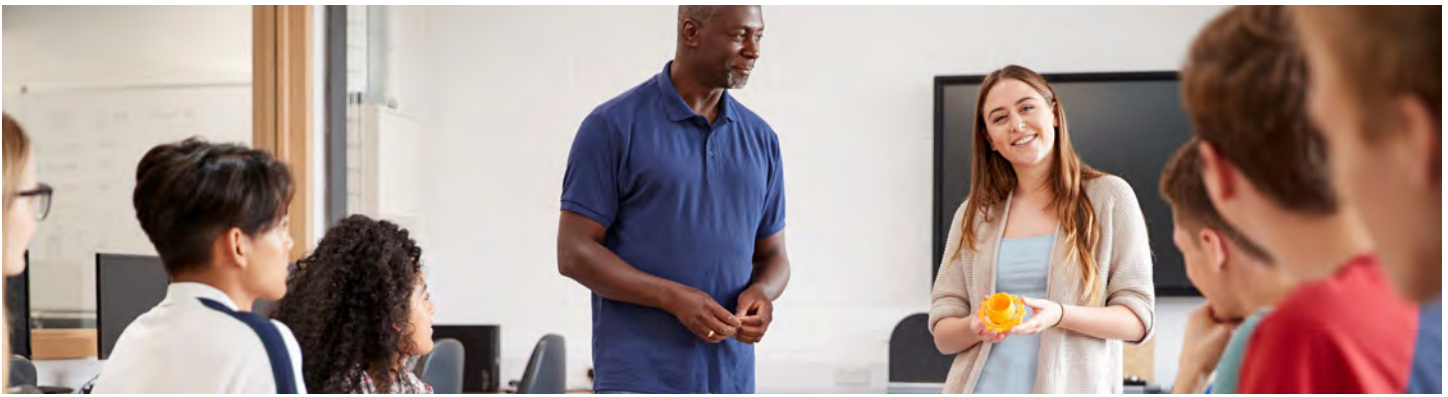
**Our Falls research has been prolific with 6 individual applied research studies:**

- Evaluation of education for health professionals -falls screening
  - Divestment from a scored hospital falls risk assessment tool (RCT)
  - Exploration of patient perspectives on hospital falls prevention education
  - Qualitative examination of healthcare professionals' perspectives (barriers/enablers)
  - Implementation of patient falls education in hospitals (mixed methods)
  - Implementation of hospital falls screening and mitigation
- This work has yielded 18 publications and was cited in the World Guidelines for Falls Prevention (2022). JasperVR resulted in the production of 4 re-usable educational products that were capable of significantly increasing students' knowledge, motivation, confidence, and preparedness for clinical practice. The VR fostered critical thinking and decision making and provided an efficient, sustainable, and commercially viable platform for learning about complex problems in healthcare. The IPP Program has secured meaningful paid employment for most graduating students. We have created best practice guidelines, digital training for employers and supervisors and promotional templates so that other TAFE providers can set up their own program.

**2. Grants:** Over a 3-year period, we have been successful in securing competitive national and state-wide grants to the value of \$3.161M (AUD).

**3. Publications:** We have published 21 journal articles in highly ranked peer-reviewed international journals. We have





published 6 books/book chapters; and the Clinical Chair is co-editor of an international textbook on Simulation in Nursing.

**4. Conferences:** From 2020 to 2022, we have presented our research at 11 local, 3 national and 8 international conferences. In 2023, 13 abstracts have been accepted at 2 large international health education conferences.

**5. Supervision/Peer review:** We have supervised a PhD student and a Masters Student to completion and we are currently supervising another on virtual reality in nursing education. The team provide frequent peer reviews for articles submitted to reputable international journals and the Clinical Chair is Assistant Editor for the International Journal of Healthcare Simulation.

**6. Higher degrees:** As a result of our work, 2 Holmesglen staff have commenced master's degrees in nursing and education, one is considering a PhD.

## INTERNATIONAL VALUE

COIL: Through our engagement with an international partner, we have fulfilled our mission to broaden global perspectives and citizenship for both organisations. The research has led to international networks and the potential for future research collaborations in Europe, South Asia and USA. We have presented this work on the world stage in Europe and our latest outcomes will be shared at international conferences in 2023. Cultural advancements have also been made. The research has taught us to question our delivery of indigenous education. In Canada, First Nations people exclusively deliver Indigenous curriculum and it is standardised across the country. This is something that requires consideration in the Australian context. Falls: The research on falls has benefited health professionals internationally by educating them on falls prevention. We made a case for disinvestment from falls risk scoring tools in hospital settings as this does not reduce falls and takes valuable time. Our Falls Virtual

Community of Practice improved the capability of health care workers in Australia.

At an international level our work contributed to the newly published World Falls Prevention Guidelines. We showed that tailored education on falls prevention for hospitalised older adults/other high-risk groups should be delivered to all hospitalised patients. We recommended all hospitals have protocols, policies, and procedures for the prevention of falls consistent with best practice guidelines and that patients' cognitive status should be considered when implementing education. We developed a framework to strengthen healthcare systems internationally. JasperVR: Findings from this research can be employed in health professions education internationally. We showed that VR provides authentic and positive learning experiences for nursing students, improves learning outcomes, and caters for greater student numbers. Our VR scenarios were realistic, immersive, and could be successfully employed to teach behavioural skills such as communication, teamwork, and decision-making. JasperVR was incorporated into COIL teaching in 2022 demonstrating its relevance to an international audience with students comparing nursing practices across the two nations.

The IPP Program: Findings from this research provided a template for success for international vocational training providers who deliver foundational courses for young adults with disability. We have demonstrated how the program has had a positive impact on the lives of young adults with the majority now in paid employment and more confident to take on work. In Australia, we have established the IPP program as the 'gold standard' for securing sustainable and meaningful employment for young people with disability. Gaining global recognition of this research through the WFCP would not only recognise this outstanding practice but enable the model and learnings to be shared among the world's most successful colleges and polytechnics.



## SILVER AWARD: APPLIED RESEARCH AND INNOVATION

**Project Name:** TRL1 to TRL9 – Case of success in Soft Robotics

**Name of institution:** Instituto Federal de São Paulo

**Category:** Applied Research and Innovation Award

**Country:** Brazil

### INTRODUCTION

Instituto Federal de São Paulo (IFSP) is the Brazilian institution where Professor Alexandre Brincalepe Campo works. He was a student of the institution in the 80s as an electronics technician. Alexandre studied engineering, Master's degree and Ph.D. at Universidade de São Paulo (USP). In 2014 he worked as a visiting professor at Harvard University. In 2017 IFSP created its Innovation Agency, and with this support, Professor Alexandre developed his innovative research from Technology Readiness Level (TRL) 1 to 6. After that, a patent was required and approved. The technology was licensed to a startup named Soft Grippers, and Professor Alexandre is one of the owners.

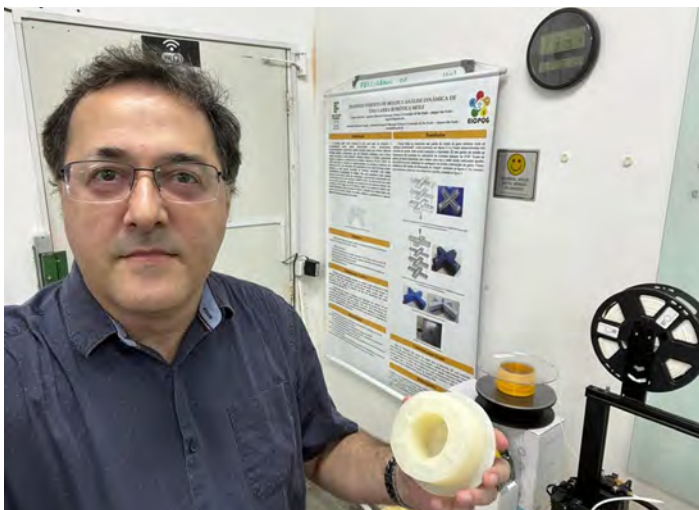
### AWARD-WINNING PROJECT

The project developed by Professor Alexandre Brincalepe Campo and his team is an innovative robotic gripper. The researcher and his team created the compliant robotic gripper's innovative design. With a traditional robotic arm, this device can grab fragile objects, such as fruit and food, or rigid and heavy objects, like a bottle full of water. The project was developed from the technological maturity level TRL 1 until reaching the maximum level (TRL 9). Today, this is a licensed product for a company (Soft Grippers Co.). A new research field has recently emerged within robotics (Soft Robots). Usually, a robot is a system that is associated with

rigid mechanical and electronic structures. The Soft Robots field represents a paradigm shift. Soft robots are designed to incorporate compliant materials such as silicone and other elastomers. Professor Alexandre Brincalepe Campo, the leader of Applied Control Laboratory (LCA), developed a new type of robotic gripper by working with students. The work was described and published at the first international Soft Robotics Conference (IEEE Robosoft 2018). The innovative idea started from level TRL 1 to reach level TRL 6 on the scale of technological maturity developed by NASA. The researcher was granted a patent for this design. The patent was licensed to a company founded by the professor in association with an entrepreneur and a former student, Willian de Andrade Bezerra (CTO - Soft Grippers Co.). Soft Grippers team worked to evolve the project to reach the maximum level of technological maturity. An application for international protection (PCT) was processed through a contract with the company ClarkeModet. Now granted protection documentation, this creation is deemed entirely original work, cementing its status as a revolutionary stride in soft robotics grippers.

### RESULTS AND ACCOMPLISHMENTS

The research and innovation incentive program at the Federal Institute of São Paulo coordinates the actions of professors/researchers and students so that efforts are directed toward working with companies. This action allows for possible productivity gains. Likewise, it is hoped that the work carried out at the institution will result in patents and products. The project that resulted in the WFCP award summarizes the proposal's success, as it crossed all levels of technological maturity (TRL 1 to TRL 9). The performance of the Innovation Agency at the Federal Institute of São Paulo enables the community to develop projects with support and guidance for submission to the Brazilian Industrial Property Institute (INPI). A team coordinated by the agency assists in identifying the innovation and writing the patent. Students are exposed to this dynamic, learning to develop projects up to technological maturity level 6 (TRL 6). The project developed by Professor Alexandre Brincalepe Campo covered the rest of the way for the technology to become a product (TRL 7 to TRL 9). In this





way, the company created by the professor, an entrepreneur, and a former student licensed the technology, making it impossible to offer it on the market. Today the company employs two more former students of the institution. For this policy to be effective, students must be exposed to the most modern techniques applied in the industry. The impact of the innovation policy of the Federal Institute of São Paulo results in an improvement in the quality of teaching, considering that students should be able to develop innovative projects.

## INTERNATIONAL VALUE

The project is part of a set of research and technological development initiatives conducted by a team of researchers from the Federal Institute of São Paulo. The group was created by Professor Alexandre Brincalpe Campo (SoRo Brazil) and is now part of the CNPq Research Group Directory. It is the first soft robotics research group to be founded in Brazil. The projects developed by the group of researchers generated several works published in national and international events. The robotic gripper project is significant because, in addition to a publication in a major international event, its originality was deemed worthy of a patent (granted and licensed to Soft Grippers Co.). The experience of conducting research that results in applied work that a patent can protect is of great importance to students and researchers in the research group. The projects involved knowledge in mechanical, electronic, and control systems engineering and others. The technology development wouldn't be possible without student support.

## WORDS OF WISDOM

Research and Innovation usually need more attention in technical training institutions in developing countries. The experience of the Federal Institute of São Paulo, in Brazil, showed that encouraging innovation can bring results. The policy of valuing these initiatives through creating an Innovation Agency shows that it is possible to stimulate and conduct practices that lead to relevant results in a broad context. Guidance given to professors and students for carrying out research that enables the creation of projects that cross all levels of technological maturity (Technology Readiness Level 1 to 9) is essential for obtaining relevant results.

## NEXT STEPS

The creation of the Innovation Agency in 2017 enabled the formation of internal structures dedicated to developing projects involving research and innovation at the Federal Institute of São Paulo. The institution has more than 35 units in the state of São Paulo. One of these units was recently promoted as an innovation center in the food sector (Polo EMBRAPPII – IFSP – campus Matão). We believe that this award is one of the first fruits of this process of transforming the IFSP into a research and innovation center in Brazil. Professor Alexandre Brincalpe Campo continues to work with his research group on new projects that may result in patents and products. The research in soft robotics is expanding widely, allowing new devices and solutions to be developed soon.





## BRONZE WINNER: APPLIED RESEARCH AND INNOVATION

**Project Name:** Solar Powered Water Based Cooling System

**Name of the Institution:** Nairobi Technical Training Institute

**Category:** Applied Research and Innovation

**Country:** Kenya

### INTRODUCTION

Nairobi Technical Training Institute is a public, non-profit making college located in Nairobi County, Kenya. It has been a leader in technical educational, research and innovation for a period of over 38 years. The Institute offers an exceptional roster of Diploma, Craft and Artisan programs coupled with specialized short courses in green energy systems and applications to a diverse population of more than 8,000 trainees.

The faculty consists of 200 highly trained professional trainers under the employment of the government and 20 highly skilled technicians who man workshops and laboratories. The Research and Innovation (R&I) department has been a driver of economic development and diversification through the wide range of innovations that have been developed over the past decade. It has provided solutions to problems faced locally and internationally, thereby eliminating challenges and hardships faced by given communities.

In an effort to establish a footprint in the area of applied research, the department has for the last ten years partnered with local agencies such as the Kenya Association of Manufacturers (KAM), the Kenya Innovation Agency (KENIA), the National Commission of Science Technology and Innovation (NACOSTI) and the Small and Medium Enterprises (SMEs) to realize this goal. The overriding benefit to the institute graduates has been that most have been able to initiate startups which have resulted in wealth and job creation.

### AWARD-WINNING PROJECT

The Covid-19 was an eye opener to Nairobi Technical Training in a bid to see how it would address the issue of vaccines getting to the remote areas still in good usable condition. This challenge is what gave birth to innovation of the winning project which is “the Solar Powered Water Based Cooling System.”

In Kenya, there are some remote areas where electricity is not available thus storage of vaccines below the expected

degrees was a challenge, yet the country was committed to availing the vaccines to all her citizens regardless of their location. To ensure this was possible the institute came up with the cooling plant which made it possible to store the vaccines. The plant was powered by solar energy which is adequate in the dry areas.

The cooling plant became a solution to most of the dispensaries in North-Eastern and Northern part of the country for storage of Vaccines. This has seen the counties in these areas attain an 85% vaccination rate from as low as 55% before and not only for covid-19 but other mandatory vaccinations for children.

The institute has been working in collaboration with the Ministry of Environment, Climate Change and Forestry, Ministry of Health and the County governments of the affected areas. The community in these areas has been trained on how to use the equipment and maintenance of the same. They are also in charge of safe keeping and ensuring they work in collaboration with the health facilities at the county level when moving the plant from one station to another. The ease of moving the plant has made it possible for the vaccines to be always available when required. More so, since the people living in these areas are nomads, it's possible to track their movement and take the plant where they are at any given time. This has a reduction in the child mortality rates since its inception in the year 2021.

The cooling plant is not only used to store vaccines but also food stuffs that are scarce in the semi-arid parts of the country. This seen most of the counties in these areas being able to supply/ provide food with the required nutrition values to the mothers once they visit the hospitals for their children vaccination. The county governments are happy to see reduced cases of malnutrition among the children in the area.

The innovation, therefore, was mainly hinged on the needs of given communities to achieve the UN universal sustainable goals, like universal health, affordable and clean energy, food security and poverty reduction. Kenya being a third world country must develop homegrown solutions that will drive economic growth, enhance environmental protection, and create a social impact through applied research that seeks



The Institute Sensitizing the Semi-Arid Community on the use of the water based cooling plant at Isiolo and Narok Counties.

solutions to real world problems without dependence on development partners.

The Nairobi Technical Research and Innovation department has for the last ten years established itself as a centre of creativity and innovation amongst its peers by developing 30 innovations, 20 of which have been commercialized. These have been presented at different exhibition forums under the Kenya Association of Technical Training Institutions, Kenya Innovation Agency, and National Commission for Science, Technology and Innovation, Kenya Association of Manufacturers, and the Nairobi International Trade Fair. The institution has scooped top positions in the competitions including several awards.

The Institute Management through the Chief Principal Madam Glory Mutungi has provided the necessary environment for development and translation of ideas through provision of resources in the form of an innovation hub and a collaboration platform with partners in academia, industry, business, and government. Though operating on limited funding, the budding innovators have had to resort to using locally developed technologies and materials to implement prototypes. Some of the outstanding innovations that have been developed include, solar powered water-based cooling system, solar powered food drying system, solar powered smart farm model, solar power automated Covid 19 prevention system, solar powered automated sand refining machine, black box for vehicles, digitized alco blow for automobiles, industrial air pollution monitoring and control system and soaps and detergents.

The innovations are mainly hinged on the needs of given communities in an effort to achieve the UN universal sustainable goals, like universal health, affordable and clean energy, food security and poverty reduction. Kenya being a third world country must develop homegrown solutions that will drive economic growth, enhance environmental protection and create a social impact through applied research that seeks solutions to real world problems without dependence on development partners.

## RESULTS AND ACCOMPLISHMENTS

In the last four years, Nairobi Technical has earned revenue in excess of Ksh: 2,000,000.00 from Covid-19 prevention related innovations. The supply chain involved in the R&I products has resulted in the employment of five support staff since 2020. This has seen the institute receive Modern training/production equipment in the areas of Health and Applied Sciences, Electronics and Mechanical engineering from awards obtained after excelling in competitions and exhibitions where the institute has been first position.

More staff is now participating in research and innovation activities due to the great strides and achievements made in this area. An R&I club for trainees was started six years ago and has a membership of 360, it has served as a vehicle for incubation and nurturing of young researchers and innovators. More than 100 members of staff have participated in research and innovation conferences locally and internationally, this has sharpened their skills in applied research.

Last year the institute held its first Research and Innovation week, where different departments showcased their innovations. The event was very successful and will now be an annual event. More than 250 exhibits were on display. With such initiatives, more than 400 trainee researchers in the period 2022/2023 have come on board working under the supervision of the R&I department. They have presented more than 600 ideas for consideration and 30 are already at the incubation stage.

Proposals have been written to various organizations with a view to establish partnerships with the industries, come up with innovations that will address the market gaps and also set up a production unit within the institute that will have skilled craftsmen and modern machinery and equipment for mass production of the prototypes after patenting. The institute is currently conducting feasibility studies on how it can generate gas for cooking and electricity from the large amount of biomass generated from its hospitality/institutional management facility. This if successful will reduce energy bills and even allow the institute to generate income when supplying electricity to nearby would be consumers.

## INTERNATIONAL VALUE:

The institution has over the last 20 years participated in the Nairobi International Trade Fair that brings together exhibitors from across the globe. This platform has allowed the Institute to showcase its innovations, the net outcome has been signing of memorandum of understanding intended to cement partnerships and collaborations.

The most appealing projects have been the solar operated water-based cooling system, solar operated food drier and the industrial pollution detection and control system. The involvement of companies though not intense has benefitted the institution since trainers' skills have continuously been updated through capacity building workshops thereby allowing trainees to deal with real cases in their learning process.

The companies have also brought technical staff to work together with the Institute staff and trainees to innovate their products and processes; this has been profitable to the companies like Coca-Cola East Africa, which required the design and construction of a baler in the context of environmental protection against plastics.

This initiative has led to the development of a baler that is currently in use within the East and Central Africa region. This is a good case study for other TVET institutions across the globe to emulate.

## WORDS OF WISDOM

- Research and Innovation in colleges and tertiary institutions is the core access point for economic, social, environmental, training, and entrepreneurial impacts on any given nation.
- Applied Research ensures that communities can attract domestic and foreign investment and at the same time attract or retain youth.
- A successful Research and Innovation department at the institution means many startups from their graduates therefore reduction in unemployment.
- To mainstream Research and Innovation there is need to make it mandatory by being a performance indicator for all colleges.
- There should be deliberate efforts to establish and build comprehensive partnerships and collaborations both nationally and internationally to support R&I programs platform that is vibrant.
- Institutions should establish Transfer of Technology units which will focus mainly on patenting and commercialization of innovations. The units should be operated by professionals for each core function.
- The leadership of the R&I department must be visionary, qualified, and flexible.



## NEXT STEPS

Nairobi Technical Training Institute Research & Innovation policy statement aims at developing a vision of sustainability and growth for the future that includes continuous evaluation of the department's operation model and infrastructure. The institute intends to develop mechanisms of generating revenue internally to be able to support R&I thereby increasing applied research.

This will certainly have an economic impact in Kenya as it will impact greatly on livelihoods. For there to be success in this, it will be incumbent that proper networks with other academic institutions be developed including local and international collaborations with industry and academics across the world.

As has been noted above, the institute is working closely with its academic departments to embed more research into the

classroom, providing all trainees with experiential learning opportunities and an encounter with research during their third year of study in the form of a specialized project in their area of study and a business plan.

The importance of Research & Innovation cannot be ignored as it is strongly committed to ensuring representation of the diversity in different communities, regions, and world in which we operate. The priority action items identified ought to focus on embedding indigeneity, inclusion, diversity, equity, and accessibility considerations and practices throughout the research process. These strategies will undoubtedly strengthen Nairobi Technical Training Institute research excellence.





**CONSTRUCTION**





## GOLD WINNER: CONSTRUCTION

**Project name:** "Industry Integrated, Virtuality Linked, Evaluation Empowered" Cultivation Mode of Construction Talents with Digital Competence

**Name of institution:** Wenzhou Polytechnic

**Category:** Construction Award

**Country:** China

## INTRODUCTION

Wenzhou Polytechnic is a high-level higher vocational school with Chinese characteristics, a national model, and one of the top 50 schools with typical experience in innovation and entrepreneurship in China. The employment rate of graduates has exceeded 98% for 17 consecutive years, and the graduates' training quality, employment competitiveness, salary level have ranked the first among vocational colleges in Zhejiang Province for many years. It has been selected as the demonstration base of digital media industry-education integration, innovation and application in colleges and universities by the Ministry of Education, the construction unit of national Virtual Reality Training Base.

## AWARD-WINNING PROJECT

The project that was awarded is "Industry Integrated, Virtuality Linked, Evaluation Empowered: Cultivation Mode of Construction Talents with Digital Competence" by Wenzhou Polytechnic, which is proposed and implemented to meet the demand of digital competence unmet by previous cultivation patterns in the new era of digitization construction.

**This project addressed three major issues:** Firstly, issues about the path of cultivating inter-disciplinary talents. In view of the physical training issues such as long practice period on the construction site, insecurity, invisible concealed works, limited practice space on campus, and large consumables, this project will include 3D virtual simulation software, virtual experience software and other industrial innovation technologies characterized by "intelligent construction" technology into the curriculum content, stimulate students' learning motivation.

Secondly, the sustainability of integrating industry and education. Through the cooperation between schools and enterprises to jointly build colleges of digital architecture industry, the project communicates the standards of industry and colleges, and iterates vocational education and professional education, so that students can learn vocational skills in the industry colleges, introduce new technologies, new processes, and new tools into teaching, interact with

the job requirements of enterprises, complete the cultivating and upgrading of industrial talents.

Thirdly, the talent evaluation system is not sound enough to stimulate students to become talents consciously. By developing the wisdom evaluation system, it can realize the functions of timely and comprehensive analysis of students' learning situation, diagnosis of learning problems and difficulties, early warning of students' learning according to teachers' settings, assisting teachers to design assistance plans for early warning students, regularly generating and feeding back students' growth portraits, etc., so that students can grasp their own growth in a timely manner.

Under the authorization and support of the local government, the industry college of digital architecture is co-founded with leading enterprises of construction and digital architecture technology. Efforts are made focusing on the emerging posts in architecture digitization, joint curriculum system, co-building smart construction training room, joint development of new-form teaching materials, and joint participation in the learning evaluation of students.

Under this mode, the government promotes the transformation and upgrading of the construction industry. Construction enterprises can recruit talents to meet the needs of digital construction. Enterprises of construction technology can accelerate digitization construction software and application technology. Schools set clearer goals of talent training. Students are trained in new technologies and new skills to prepare them better for the society.

## RESULTS AND ACCOMPLISHMENTS

The project aims to strengthen the adaptability of education and industry development, enhance the breadth and depth of students' future employment by jointly building colleges of digital architecture industry with enterprises, focusing on emerging digitization posts. Through the joint construction of smart construction site and physical training room, we will explore an education ecosystem of politics, industry, academy, and research with linkage of virtual and real by putting "construction site into the classroom, project into the





Students Join Smart Construction at Training Base of Integration Between Industry and Education



Students Won the First Prize in National Industrial & Vocational Skills Competition (Prefabricated Construction)

teaching materials, and considering students as employees". Teachers and students will jointly gain skill growth and exercise in actual projects. Through the construction of the evaluation system of "all-factor integration", we can generate personalized quality reports for each student, enabling students' growth of internal power.

This project has built 1 training base of national virtual simulation, 1 teaching resource library of national vocational education, 2 scientific research service platforms of municipal level, 10 training bases of "double qualified teachers", 9 practice bases of enterprise and 14 mobile stations of enterprise practice; It has won 7 research projects of provincial and ministerial teaching reform and has cultivated 4 provincial winning teams of teaching ability contest. In the past three years, it has undertaken industry training entrusted by regional governments, industries, and enterprises such as Wenzhou Municipal Commission of Housing and Urban Rural Development, Wenzhou Transportation Engineering Center, Zhejiang Geological Brigade, etc. The annual average total training volume has exceeded more than 3000 in-school students, effectively supporting the objective requirements of high-quality development of regional economy.

## INTERNATIONAL VALUE

The project team has a cooperative relationship with international construction colleges in the "Belt and Road" countries. In the past three years, the training program for architectural design professionals and 10 curriculum standards were exported to CamHR Information (Cambodia) Co. Ltd. and praised. The training programs for engineering cost, construction engineering technology professionals and 20 curriculum standards were exported to Chinese Culture and International Education Exchange Center in South Africa and praised. The project has hosted overseas training for five times, benefiting countries such as Philippines,

Cambodia, etc., and the participants have reached 2500 person-time. And it has developed 12 bilingual teaching packages, shared curriculum resources with the whole world through the national teaching resource database platform, and has received more than 200,000 hits internationally until today. More than 20 papers have been published on the teaching mode in international journals and has achieved good international promotion effect.

## WORDS OF WISDOM

The cultivation of compound technical talents needs the cooperation of schools, enterprises and the government. The premise of cooperation is the win-win situation of all participants. Only win-win cooperation can achieve sustainable development and symbiosis.

The cultivation of compound technical talents needs the help of digital and information technology means, and the visualization, virtualization and simulation of technology will play an increasingly important role in the training of technical skills.

All-round, full-staff and whole-process evaluation can stimulate students 'continuous correction of individual behavior in multiple dimensions and multiple time points, so as to achieve everyone's success.

## NEXT STEPS

We will further enhance the construction of the existing training base, enrich the school-enterprise cooperation mode, deepen the integration of production and education. On the basis of the original project cooperation, we will further carry out the deep integration of new technology and teaching content, digital means and teaching management, and improve the training level of digital architectural talents.



## SILVER WINNER: CONSTRUCTION

**Project Name:** The Humber Cultural Hub

**Name of Institution:** Humber College Institute of Technology & Advanced Learning

**Category:** Construction Award

**Country:** Canada

## INTRODUCTION

Humber College is Canada's largest polytechnic institute and provides career-focused education to more than 86,000 learners in-person and online. As a global leader in polytechnic education, Humber students receive in-depth theoretical learning and hands-on experience with applied research and extensive industry connections. A comprehensive range of credentials, including honors undergraduate degrees, Ontario graduate certificates, diplomas, apprenticeships, and certificates, prepare career-ready global citizens to move seamlessly from education to employment. Humber's emphasis on state-of-the-art, industry-quality facilities and learning spaces prepare students for the careers of today and tomorrow.

## AWARD-WINNING PROJECT

The Humber Cultural Hub (HCH) is part of the ongoing revitalization of our Lakeshore Campus and will form an exciting new destination for arts and entertainment programs and festivals in Toronto. The 365,000 sq. ft. landmark building will transform education for the entertainment and creative industries by enabling unique opportunities for students, faculty, community and industry.

Rejuvenating the Lakeshore Campus is an important element of Humber's long-term campus development plan. Key objectives of the plan include integrating the campus more closely into surrounding communities and natural settings; developing an inviting campus entrance that encourages community engagement; and creating more public spaces, where people can gather to connect, create and collaborate.

As the need to address aging infrastructure of Lakeshore's existing A building became more urgent (identified through studies and validated with stakeholder consultations), Humber's vision of creating a cultural hub that inspires creativity, supports a connected community, encourages public appreciation of the arts and offers world-class performance venues, came to life. At the same time, Humber was looking for a prime location for its Centre for Creative Business Innovation (CCBI), which will be a vital portal for

partnerships between industry and the creative arts.

The construction of the HCH is a two-phase redevelopment. The first phase includes the construction of a 250,200 sq. ft. building featuring a 140-seat Recital Hall to be used primarily for academic purposes, specialty teaching spaces for arts and cultural programs and a 300-space student residence. The second phase will include a 500-seat Performance Hall designed for immersive experiences, and purpose-built for acoustical and technical quality to present a single performance to large ensembles; as well as dance and theatre productions; guest lectures; industry and multimedia presentations; film screenings; and complex, multi-disciplinary, non-traditional shows.

Formal and informal cross-discipline consultations were held with faculty, administrators, industry partners, user groups, government and representatives from Humber's Program Advisory Committees as well as residents and community groups. These were invaluable to develop the CCBI concept and validate the need for a new gateway building at Lakeshore.

The HCH has several partnerships that will benefit students through industry-informed programming, including HotDocs, Ubisoft, NBC Universal and Nuit Blanche. Having multiple theatres on the grounds would allow for additional partnerships such as a film festival - something that hasn't been done there before. HCH will also be the new home of the Etobicoke Philharmonic which is exciting our students.

## RESULTS AND ACCOMPLISHMENTS

Among the objectives noted previously in relation to ongoing revitalization and world class education and performance spaces, this building project will be one of the most sustainable developments in Canada and a showcase for global best practices in sustainability and energy efficiency. The building will achieve LEED v4 Platinum certification and Net Zero Energy and Carbon targets. We have adopted a passive design approach that uses the building architecture to maximize occupant comfort and minimize energy use. Energy use will be offset with on-site production (geothermal and

solar), and we anticipate the building will meet a Minimum Energy Target of 75kWh/m<sup>2</sup>/year and a Thermal Energy Demand Intensity of 32 kWh/m<sup>2</sup>/year.

These goals will be achieved through state-of-the-art, automated and highly efficient building systems (HVAC, lighting and water management). A high-performance building envelope will reduce heating costs and the strategic use of glazing and shading will control solar heat gain and loss. The building design will also make efficient use of the land to create a compact infrastructure that will support more students with lower operating and maintenance costs, improve internal circulation and enhance connectivity to the surrounding communities and historical parklands.

The HCH will attract business, create jobs, and enrich the local economy. It will benefit and support the area's culturally underserved communities by offering accessible, high-quality spaces where students, artists, creative industries, and community arts organizations can teach, perform and exhibit their work.

## INTERNATIONAL VALUE

The HCH facilitates collaboration between programs in the Faculty of Media & Creative Arts (FMCA). FMCA hosts the most comprehensive mix of media, arts, and interaction design programming of any polytechnic institution in Canada. Disciplines that usually sit in separate Faculties in other institutions, domestic and abroad, are together in FMCA – appealing to international industry, community, and academic partners. The state-of-the-art spaces will provide students with industry-informed work-integrated learning experiences and support a full spectrum creative and performance activities.

The HCH's built-in technology will enhance hybrid learning and redefine accessible performances. This will bring performances to anyone, anywhere, connecting groups directly with others who would otherwise be restricted.

HCH is already a model for the global design and construction industry, and we continue to push boundaries through projects like HCH so we can continue to inspire.





## WORDS OF WISDOM

The HCH development is being constructed using an innovative construction delivery model called Integrated Project Delivery (IPD). IPD is an approach that focuses on LEAN processes to optimize project results, increase value to the owner, reduce waste, and maximize efficiency through all phases of design, fabrication, and construction. Starting at early design stages right through to owner occupancy.

While there can be many benefits to using IPD, its new adoption in Canada has created challenges for all parties attempting to diverge from industry status quo, especially on such a large-scale project. However, this model proved particularly helpful in overcoming the obstacle of supply chain disruption due to Covid-19. The IPD partners moved forward with significant understanding, ingenuity, and flexibility to maintain the project's objectives and goals. The HCH has made clear the need to dismantle barriers and push the industry and trades towards better practices.

## NEXT STEPS

As we complete the HCH, the IPD process will continue to keep all on track and ensure everyone continues to support the achievement of our shared goals. The first phase to be completed in Spring 2024, and the second phase set to be completed in 2026. Throughout this process, we will apply for recognition of the highest sustainable building standards, including LEED Platinum, Net Zero Energy and Carbon and the Toronto Green Standard.

Excitement about HCH and its impact builds in the arts and culture community, and we plan to support this by creating an industry advisory council and bilateral relationships with arts and culture leaders locally and internationally. This will bring insights of some of Canada's top artistic leaders and creators, critical to shaping programming once the HCH opens and will support the expansion of high-quality arts and culture opportunities outside of Toronto's downtown core.



## BRONZE WINNER: CONSTRUCTION

**Project Name:** Industry Collaboration to Enhance Construction Education and Widen Participation

**Name of Institution:** Burton and South Derbyshire College

**Category:** Construction Award

**Country:** United Kingdom

### INTRODUCTION

Burton and South Derbyshire College is a Further Education College based in England, committed to providing a valuable and supportive learning experience for all, helping everyone to achieve their career, learning and business objectives and positive contributions to society.

Our award focusses on BSDC Construction Academy's collaboration with a large construction employer, St. Modwen's, whose Managing Director is an alumnus and a patron and fellow of the College.

St. Modwen have a workforce of skilled and passionate people who take great pride in what they do. They make significant investment in growing and maintaining talent with quality training and development.

### AWARD-WINNING PROGRAM

The partnership has initiated and developed projects addressing the following objectives: National skills shortages within construction, widening diversity from under representative groups in the workforces, and improving skills and knowledge gaps through innovative practices.

Below outlines some exemplar project elements, related to professional and technical education.

**Tutor Bursary and Continued Professional Development:** Many colleges struggle to recruit and retain quality teachers. Individuals with both industry and teaching experience earn approximately 20% more within industry compared to education roles – this can negatively impact the number of programmes delivered. This project designed a package that expedites industry professionals into teaching by providing training bursaries to obtain qualifications alongside commitment to continued professional development ensuring tutors have the latest skills and knowledge.

**Help Shape Industry Led Curriculum:** St. Modwen created an education group to review the content of the Construction Academy's programmes to improve training and ensure learners are best prepared for employability. Reviews have

led to sponsorship of emerging processes through capital and industry masterclasses and the redevelopment of spaces, ensuring activities meet national industry requirements. A collaborative review of higher education provision ensured the full alignment of programmes of study with entry routes to site management positions ensuring commonality of purpose with national needs in the transition to technical positions.

**Addressing Specific Skills Industry Skills Shortages:** St. Modwen and BSDC ran intensive training courses aimed at providing a route to employment for ex-service men and women. The bespoke course was delivered flexibly to allow individuals (with employment) to retain employment commitments with a guarantee of interview on completion. The project went on to secure 100% achievement rate and excellent destinations for participants.

**Collaborative Bespoke Curriculum to Meet the Sector Needs:** Developed with Staffordshire University and St. Modwen. This innovative course supports the sector's commitment to sustainability and increase productivity through the development and implementation of alternative forms of construction. The short format allows for targeted retraining while also integrating into full Higher Education programmes, with St Modwen aligning its objectives to their commitment



to sustainable practices.

Upskilling Workforce on Sustainability Practices: Ambitious targets for sustainability require radical change within the Built Environment. A need for awareness of the implications of solar PV system install to new build developments was identified. Bespoke programmes were designed and delivered, including liaison with national installation suppliers identifying the impacts and opportunities that arise within scheduling, funding, and building regulations to effectively coordinate progress within developments.

## RESULTS AND ACCOMPLISHMENTS

Results of this unique partnership between education and industry are brought not only to learners undertaking construction programmes at BSDC but also in the wider benefits to enhancing social mobility, challenging national and international skills shortages, providing future workforce solutions alongside improving the education workforce. All these areas leaving key long term impacts.

### Key quantifiable Impacts (Last Three Years):

- Provided over 200 Work placements within St. Modwen Homes and their subcontracting partners to construction learners.
- Designed and validated short higher education provision (micro-credentials) within construction and sustainability, accessible to all for retraining through government backed loan schemes.
- Developed and undertook bespoke entry to employment retraining programme in Bricklaying, high success rates

and positive destinations.

- 24 vocational practitioners have benefited and continue to benefit from a bursary partnership scheme.
- Funded and delivered over 30 teaching qualifications to new tutors and trainers within the construction industry.
- Validated and advise on curriculum content for vocational construction programmes, which in turn has ensured thousands of learners and apprentices are getting the latest skills and knowledge so they are 'industry ready' once they graduate .
- Sponsorship of the College's Construction Academy, creating national brand recognition of training within the sector.
- To incentivise excellence, 10 learners have been identified through the learner of the year scheme. Many of our construction learners work incredibly hard to achieve their educational objectives, to recognise those who have gone above and beyond, St. Modwen acknowledge these individuals with trainee professional roles within the organisation.

## INTERNATIONAL VALUE:

Director of Curriculum, Geraint Davies, leads the Construction Affinity Group for the WFCP. Through this forum best practices are discussed and shared internationally, coordinated through online events and face to face sessions.

Best practice presentations related to these collaborative projects have been delivered to international groups through open forums on industry employer engagement at the 2022 congress in San Sebastian and Sustainability and widening





participation in 2023 in Montreal. Both events were well attended with consistent international themes discussed and collaborative discussions chaired on actions with reflections and accomplishments.

Follow ups to these events are conducted online 3 times per annum, allowing for developments to be made and widening access to the best practice for those unable to attend the face-to-face events.

## WORDS OF WISDOM

BSDC have had great success in collaboration with St Modwen. Advice to others embarking on partnership would be to define your shared vision, goals and expectations and divide responsibilities based on individual strengths and areas of expertise firstly clearly. Open and honest communication is vital throughout a partnership, and it is important to evaluate and reassess strategies to remain current and responsive. Learner feedback plays a key role in feedback and evaluation. Finally, ensure successful publication of achievements to promote the work that we do; to raise aspiration and awareness across wider participant groups and gain further reach.

## NEXT STEPS

Alongside the continuation of the initiatives outlined the next major milestones of the partnership will be the launch of the sustainable innovation hub engaging and inspiring young learners into modern construction roles.

The hub is to be housed in a net-zero pod previously showcased at COP26, integrating AR/VR technologies integrating with local communities and schools.

The programme transcends existing construction topics offered within the UK National Curriculum for 5- to 11-year-olds; with a curriculum designed to excite, engage, and inspire young learners, providing memorable and innovative activities offering enriched exercises to inspire careers in construction and sustainability beyond perceptions of existing roles. This includes emerging roles within the sector, showing the variety of opportunities available, dispelling myths and stereotypes that may prevent access.

Curriculum topics follow three routes: Energy, materials, and the environment, covering traditional construction activities alongside sustainable developments that will benefit both the industry and at home.



A young woman with brown hair and glasses is smiling at the camera. She is wearing a dark blue hoodie and a blue lanyard. She is holding a silver laptop. The background is a server room with many server racks and a desk lamp. The text "CYBER & DATA SECURITY & SOCIAL ENGINEERING" is overlaid in white at the bottom.

# **CYBER & DATA SECURITY & SOCIAL ENGINEERING**





## GOLD AWARD

**Project Name:** Cybercrime Programs Initiative

**Name of Institution:** Justice Institute of British Columbia

**Category:** Cyber and Data Security and Social Engineering

**Country:** Canada

## INTRODUCTION

The Justice Institute of British Columbia (JIBC) is Canada's leading public safety educator with a mission to develop dynamic justice and public safety professionals through its exceptional applied education, training and research.

Founded in 1978 as a public post-secondary institution with a provincial mandate, JIBC offers internationally recognized education that leads to certificates, diplomas, bachelor's degrees and graduate certificates; continuing education for work and career-related learning and development; and customized contract training to government agencies and private organizations worldwide. Our pioneering approach to education emphasizes realistic simulations and applied learning delivered by instructors who are experienced practitioners.

Each year, more than 30,000 students study at one of JIBC's six campuses in B.C., through online distance education, and at locations in more than 90 B.C. communities, as well as sites across Canada and around the world.

Our graduates include paramedics; search and rescue technicians and volunteers; firefighters, law enforcement officers, security personnel, intelligence analysts, emergency management professionals, court sheriffs; correctional officers; probation/parole officers; trauma counsellors; bylaw enforcement officers; negotiators; mediators; and conflict resolution practitioners.

Our education contributes to communities and a more just society by providing professionals with the knowledge, skills, and abilities to excel at every stage of their careers and make a difference every day.

In working towards JIBC's vision of "safer communities and a more just society," those efforts include a renewed focus on reconciliation with Indigenous Peoples and combatting discrimination of all kinds. Our role in training and educating law enforcement and other emergency responder personnel gives us a unique perspective and influence, making us ideally suited to create positive change in these areas.

## AWARD-WINNING PROGRAM:

The Cybercrime Programs initiative was developed to respond to ongoing cybersecurity challenges increasingly impacting all public and private organizations. An increasing number of decision-makers in public and private organizations are called upon to utilize vast amounts of data and information. These public and private officials must address issues that are increasingly more sophisticated, organized and technically challenging than in the past and require a unique set of skills and competencies. Cybercrime analysts are in a position to address many of these challenges.

The programs allow students and working professionals the opportunity to take a more formal Graduate Certificate in Cybercrime Analysis, and/or the option of three very short duration (14 hours each) micro-Credentials in cybercrime: Malware Detection & Protection Basics; Basics of Defending Against Cybercrime; and Essentials of Investigating Cybercrime.

**The Graduate Certificate in Cybercrime Analysis provides university graduates with a unique combination of theoretical knowledge and applied analytical skills at the graduate level with three overarching goals:**

1. Apply analytical skills, critical analysis, and an interdisciplinary mindset to the process of identifying, analyzing, and addressing unstructured data and cyber threats within a variety of security and criminal contexts such as finance and banking, crime and organized crime, and national security, safety and terrorism;
2. Identify and apply a comprehensive understanding of legal, ethical, political, cultural issues of collecting and managing intelligence using overt/covert operations;
3. Demonstrate an ability to develop practicable processes for gathering intelligence from overt/covert operations and encrypted information.

The program consists of graduate level courses for a total of 15 credits, is part-time program, with learners typically taking 1 1/2 – 2 academic years to complete. This structure



allows them to continue working while gaining a credential.

The 3 micro-credentials were developed and implemented to support the provincial focus on the increased need for post-secondary institutions to provide greater access and opportunity to competency-based training, as well as to enhance career options. The target audience for these programs are broad and have been implemented in such a way as to reduce entry barriers: entry is open for enrollment to all diverse populations as it does not require a degree nor any limiting educational entry requirements. Indigenous learners will be provided direct entry opportunities.

### The goals of all programs are:

1. The programming develops mastery of at least one occupational competency.
2. The competencies are in demand by B.C. employers, government, communities, and/or First Nations.
3. The competencies align with current and future public safety occupations.

## RESULTS AND ACCOMPLISHMENTS

The programs within this project provide access to a potential job market of increasing demand and need in the areas of data analysis focusing on cybersecurity issues and challenges. BC Labour Market data from 2020 showed approximately 27,000 jobs from 2020-2029.

A key benefit for students for all programs is the fact that they are asynchronous affording a flexible approach to their time to commit to higher education and their career pathways: They do not have to give up one for the other.

All programs provide opportunities for further education. Graduates of Cybercrime Analysis program has a direct pathway to complete a master's with Mercyhurst University. Those that complete all three micro credentials receive credit that can be applied toward bachelor's degrees at JIBC.

As stated earlier, the 3 micro credentials provide students more open and diverse enrollment options than traditional credentials. To meet the goals of ease of access, fewer barriers to higher education, and a broader market base to take these programs, these courses are priced such that all individuals can take them with a modicum of financial burden, while providing a potential for professional growth.

## INTERNATIONAL VALUE

JIBC has been engaged as a supporter and participant in international education and training for over 30 years. The four programs in this project are a clear demonstration of our ongoing commitment to this activity. The graduate certificate in Cybercrime Analysis has been open for enrollment for five-eye affiliated students and professionals since implementation, and all three micro credentials are open for enrollment for international students.

All of these programs are asynchronous and are therefore accessible to international students. At the same time, we continue to explore and build linkages with international institutions with similar interests and programming with our graduate program.

Lastly, cybersecurity challenges are borderless and are often synonymous in characteristics across the globe. The need for these programs domestically is mirrored by the need internationally and JIBC is ready to support those needs.





## SILVER AWARD

**Project Name:** Abu Dhabi Polytechnic

**Name of Institution:** Cyber and Data Security and Social Engineering

**Category:** Cyber and Data Security and Social Engineering

**Country:** United Arab Emirates

## INTRODUCTION

Abu Dhabi Polytechnic (ADPoly) was established by the Institute of Applied Technology in 2010 to offer a dual educational-professional training system with multiple high-tech disciplines to produce technologists and engineers that serve the UAE's industrial manpower required for Abu Dhabi's Economic Vision 2030 (ADEV2030). The Institute of Applied Technology (IAT) was founded in 2005 through the Royal decree of the Late His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates, Ruler of Abu Dhabi as a corporate body with full financial and administrative independence. To achieve the objectives handed down to it by the Abu Dhabi Executive Council, the IAT relies on best-practice teaching and learning processes underpinning a modern curriculum, conducted in state-of-the-art facilities. The aim of the IAT is to create the scientific and professional leaders of the future; therefore, the Institute, its facilities and its outcomes are continually expanding and evolving as the needs of the Emirate and the nation evolve. ADPoly institutional goals are to create a world-class career-based education system that will produce scientists, engineers, technologists, and professionals needed for the industrial development of UAE, to create a highly skilled and highly productive workforce needed for a knowledge-based economy in order to fulfil industrial sectors' needs and requirements, and to provide ADPoly graduates with state-of-the-art learning and training skills in engineering technologies.

## AWARD-WINNING PROGRAM

Abu Dhabi Polytechnic, part of Institute of Applied Technology through the Information Security Engineering Technology Department (ISET) is offering an applied bachelor / higher diploma program designed to serve UAE's national information security and privacy. It focuses on implementing and using state-of-the-art techniques and methods to develop specialized security technologists for secure software development, systems/server administration, as well as networks and cyber security technology. Graduates of this program are Information Security and IT professionals who

provide practical Security and IT solutions in different types of Information Systems, e.g., secure information & communication systems. The program thoroughly integrates knowledge and practical skills through a balanced delivery of instructional material at the ADPoly and OJT (internships) by professional training providers and industrial partners. This unique combination offers the students solid knowledge towards gaining an accredited Applied Bachelor / Higher Diploma in information security while receiving specialized training leading to industrial-recognized qualifications at various levels of information security. ADPoly is currently hosting a number of training Academies from major international cyber security companies and organizations, e.g., Oracle, Cisco, Microsoft, CompTIA, RedHat, CyberGate, EC Council, Palo Alto Network. These academies provide a platform for on-campus training (OCT) and world-class professional certification required in the market. Moreover, this program guarantees highly prestigious jobs for its graduates within governmental establishments and private organizations as well. ADPoly and ISET are supporting Cyber Pulse Initiative in cooperation with the Cyber Security Council of the United Arab Emirates and its strategic partners and establish first-of-kind Metaverse and Cyber Valley Initiative at ADPoly.

## RESULTS AND ACCOMPLISHMENTS

The Applied Bachelor's in Information Security Engineering Technology Program at ADPoly provides career path professional certification baskets that incorporate vendor-neutral professional certifications and vendor-specific professional. The department has an active Cyber Guards club operated by students and serves students and the community. In 2022 along with Cyber Pulse Initiative, ADPoly launched the Metaverse and Cyber Valley - the first of its kind in UAE – the space where industry leaders are opening their training premises at ADPoly: Huawei, Cybergate Defense, CISCO, EC Council, Oracle, Microsoft, CompTIA, Palo Alto Networks, and others - working for building skills of Emirati workforce and fill the gap in Cyber and Information Security skills, through specialized Labs, training and practical experience. The Metaverse and Cyber Valley have the specialized equipment, technology, and expertise. With a high

employment rate of graduates, the ADPoly development of a new, vocational information security education is contributing to the advancement of the sector by supplying a workforce required by industry and needed by society. Furthermore, it is strengthening cooperation between the information and cyber security industry and vocational education.

## INTERNATIONAL VALUE

The ADPoly approach in Information Security Engineering Technology is based on a Quadruple helix of innovation model strongly grounded on industry involvement and cooperation, cooperation with decision makers and society actors. The United Arab Emirates (UAE) has launched its first national Cyber Pulse Innovation Centre in Abu Dhabi Polytechnic. The Centre aims to produce the next generation of cyber professionals while also protecting UAE citizens and businesses from global threats. Furthermore, The Metaverse and Cyber Valley Initiative combines international industry leaders and international universities in a joint platform.

## WORDS OF WISDOM

We just don't read the headlines about cyber-attacks at CyberGate. We live with them. Our elite team of incident responders is in the trenches every day assisting customers with critical security incidents of all kinds. This seat on the front lines gives us a unique perspective on what works, and what doesn't when it comes to keeping attackers at bay. We bring that intelligence and expertise earned on

the front lines to the products and solutions. If we've seen a new tactic in one of our investigations; we're also looking for it in your environment. The result is that with CyberGate MSS services, you can reduce the time to detect and resolve security incidents to stop attackers before they steal your data. Partnership with ADPoly enables a feasible and sustainable holistic information security approach and workforce development. We are supporting the future development of Cyber Valley Initiative at ADPoly and we are very pleased to be part of building the future of education in Information Security.

## NEXT STEPS

CyberGate Defense, UAE-based specialized Cyber Security provider that offers world cutting edge defensive technologies signed the MOU with Abu Dhabi Abu Dhabi Polytechnic, affiliated with the Institute of Applied Technology on 11 April 2022. The agreement aimed to build and develop the capabilities of Polytechnic students in the fields of electronic protection. Since, the CyberGate Defense established a specialized centre for job training in the areas of electronic protection, including a business incubator for Abu Dhabi Polytechnic students. CyberGate Defense as local leading MSS provider, with solid experience in SOC deployments & Operations is relying on ADPoly partnership for building workforce and society cyber resilience to support comprehensive cybersecurity strategy and creating a safe and strong cyber infrastructure in the UAE.







## BRONZE AWARD

**Project Name:** Cybersecurity Framework

**Name of Institution:** Saskatchewan Polytechnic

**Category:** Cyber and Data Security and Social Engineering

**Country:** Canada

## INTRODUCTION

Saskatchewan Polytechnic serves students through applied learning opportunities on Treaty 4 and Treaty 6 Territories and the homeland of the Métis. Learning takes place at campuses in Moose Jaw, Prince Albert, Regina, Saskatoon and through extensive distance education opportunities.

Sask Polytech is committed to leading polytechnic education on a global scale with programs that serve every economic and public service sector.

## AWARD-WINNING PROGRAM

Over a two-year span, Sask Polytech implemented a cybersecurity framework with the goals of hardening Sask Polytech's IT infrastructure and data, modernizing policies and changing the culture of cybersecurity awareness and accountability within the organization and the post-secondary education sector. Deliverables include:

1. Sask Polytech's adoption of security toolsets from

Microsoft and Cisco with Sask Polytech becoming experts in configuration and management. Microsoft and Cisco artificial intelligence platforms are the front-line defense against increasingly sophisticated cyber threats. Sask Polytech employees have configured these platforms to provide continuous monitoring and response.

2. Cybersecurity awareness training is a priority for students and employees through orientation and procedures outlining the acceptable use of technology, phishing awareness campaigns and gamification of cybersecurity curriculum to evolve the culture of cybersecurity awareness.

3. Sask Polytech actively contributes to provincial and national technology security initiatives. This is accomplished by active membership and participation on committees, boards and other governing bodies.

## RESULTS AND ACCOMPLISHMENTS

Cybersecurity is a top priority for Sask Polytech. With support from leadership, there is a maturing culture that cybersecurity





is everyone's responsibility. This has been demonstrated by an increase in overall institutional investment in knowledge, awareness, buy-in, support and funding for tools and staffing.

Sask Polytech has worked to upskill team members through internal and vendor led training programs and create career pathways for staff interested in IT security roles. In addition to the implementation of enhanced cybersecurity measures, data analysis tools were deployed to support the collection and measurement of cybersecurity threat data. Through enhanced reporting, Sask Polytech has been able to develop proactive response strategies and supply critical information and support to help protect other community partners in the post-secondary education sector.

## INTERNATIONAL VALUE

Sask Polytech is committed to *miyo wâhkôhtowin*, the Cree phrase expressing the value and positivity of interconnectedness and building good relationships. The spirit of *miyo wâhkôhtowin* is woven through the organization and has been a foundational piece for the technical support Sask Polytech provides to other organizations.

Sask Polytech leadership serves as contributing members of several national cyber security committees, boards, and sector groups. Sask Polytech has delivered presentations, conducted workshops, and shared best practices for cyber event recovery, the adoption of cybersecurity policies and practices including how to evolve the IT security culture in post-secondary education.

Sask Polytech's cybersecurity framework and best practices can be applied to any post-secondary education institution that is looking to adopt NIST and strengthen their cybersecurity environment.

## WORDS OF WISDOM

An organization needs help to stay ahead of sophisticated and ever evolving cybersecurity threats. Leverage your vendors for their higher education licensing and comprehensive cybersecurity platforms to reduce the complexity and sprawl of your security ecosystem.

Implement Security Information and Event Management (SIEM) and Security Orchestration Automation and Response (SOAR) tools to reduce the financial and operational overhead of your security operations center. Through automation, your organization will have faster detection and efficient response to threats and free up security experts for more critical work.

Establish relationships with national and international cybersecurity organizations to leverage expert advice, guidance, tools, and services.

Embed security culture into everything you do. All members of your community have a responsibility to protect the organization. Messaging and demonstrated support from leadership is more effective in shifting the norms of the organization than an IT department is capable of alone.



## NEXT STEPS

Sask Polytech demonstrates return on investment in the cybersecurity program by publishing data that outlines potential threats being mitigated and the alignment of protection to desired security environment.

Sask Polytech integrates cyber security into organizational governance and risk management processes to bring awareness, responsibility and decision making to leadership.

Sask Polytech is committed to giving back to the global post-secondary education community and will continue to share knowledge, expertise, and support to our sector colleagues through conferences, panels and speaking engagements.

Looking to the future, Sask Polytech is committed to

sustainability practices for people, processes, and technology, including:

- Firmly established cyber security aware culture and accountability through interactive security awareness training and skill development for an educated community
- Continuous improvement of Sask Polytech's processes, policies and procedures leveraging technical and behavioural analytics
- Complete automation of the prevention, detection, response and recovery of cybersecurity events through machine learning and artificial intelligence







# GLOBAL CITIZENSHIP



## GOLD AWARD

**Project Name:** Lapassion em Rede, metodologia Bramppsol

**Name of Institution:** Federal Institute of Education, Science and Technology of Goiás

**Category:** Global Citizenship

**Country:** Brazil

## INTRODUCTION

The Federal Institute of Education, Science and Technology of Goiás (IFG) aims to train and qualify professionals for the various sectors of the economy, as well as to carry out research and promote the technological development of new processes, products, and services, in close articulation with the productive sectors and with society, offering mechanisms for continuing education.

The IFG is a public tuition free TVET-HEI in the mid-west of Brazil, near its federal capital Brasília, that offers courses from technical education integrated to high school to tertiary education: undergraduate and graduate (with masters and doctoral programs).

## AWARD-WINNING PROGRAM

The Lapassion em Rede, Bramppsol's methodology, is a multi-annual program (2022 to 2025) created by the Federal Institute of Education, Science and Technology of Goiás (IFG) with the support of the National Council of Institutions of the Federal Network of Professional, Scientific and Technological Education (CONIF). The program is based on the development and discussion of topics related to the society, the economy, and the environment, thus encompassing a myriad of local and regional topics that have global impact. It is a formative program for students that applies active methodologies with the aid of design thinking as a guideline for the development of solutions to real problems proposed by counterparties: public and private sector companies, as well as civil society organizations.

The program's methodology, Bramppsol, which is the short for Brazilian Maker Project and Soft Skills Oriented for Leadership, promotes a hybrid 10-week immersion (face-to-face and remote) to students from the Professional and Technological Education Network. Divided in teams, they are encouraged to be the protagonists of their own learning journey, by exploring to the fullest their capabilities and creativity, developing their autonomy and boosting their critical vision/analysis.

The purpose of the program, which is centred on Problem-Based Learning, is to allow the participants to work accordingly to the client's needs, and to improve their teamwork skills, developing effective communication, and learning from their mistakes during the stages, making the most of their creativity, even in the face of adversity, which culminates in their emotional and professional development and the enhancement of their soft-skills.

The main subject the drove the project revolved the following question: "How can Education Institutions create an environment of integration between education, the community, and the industry to provide students a more complete education oriented to contemporary global problems?"

For the challenges which were based on the UN Sustainable Development Goals the project count on partners and stakeholders from companies and government agencies such as: Samsung, Can-Pack (a sustainable aluminum and glass packaging company), Enel (a multinational Italian energy company), the secretary of the agriculture affairs of Goiás state and so on.

## RESULTS AND ACCOMPLISHMENTS

The benefits of the 2022 phase were quite diversified, and to classify them we need to look at those involved:

Counterparties (companies): participation, free-of-charge, in the training of more qualified, critical, creative, and innovative professionals; approximation between the company and the community in practical actions, thus building mutual trust; engagement in causes that directly affect the local, regional, and global community; getting an account of internal problems; the chance to start processes of innovation and/or acquisition of innovative solutions.

Institution of Higher Education: approximation between academia and the private sector, creating possibilities for partnership; innovative solutions designed within the institution; application of active, student-centred methodologies; interdisciplinary, multiculturalism, inclusion, and pedagogical innovation.

Students: consolidation of their previous theoretical knowledge; development and improvement of their soft and hard skills such as: leadership; time management; effective communication; emotional intelligence; creative thinking; planning capacity; people management; teamwork; use of multimedia tools and digital marketing; operation of machines and software; improvement of writing and speaking abilities; and learning of professional PITCH presentation.

Community: awareness of sustainable aspects (social, economic, and environmental); democratization of specific knowledge and the access to information; innovative solutions that can generate improvements, boost income and create or facilitate the access to jobs; awareness of the themes related to the Sustainable Development Goals (SDGs).

The first place at the Awards of Excellence is the recognition of the hard work invested and seal of a potential role model for the whole world for this methodology is highly scalable and replicable worldwide.

## INTERNATIONAL VALUE

The Brampsol is an active and consolidated teaching/development methodology that sets the student as the protagonist of their own learning and allow them to explore their capabilities and creativity, developing their autonomy and critical vision. Because creativity and innovation are essential points to develop new products, solve problems efficiently and meet customer needs, the freedom and the focus on the process differs from the traditional teaching method, where students take part on the process passively, with low emotional approximation, as mere receiving recipient gathering content from a source (teacher), while focusing only on their final exam approval and spending most of their time on a classroom.

Therefore, not only is this methodology replicable internationally as it will be for its next years of development in which is planned to spread its wings firstly to the Latin America and than to the Portuguese Speaking Countries and the world.

## WORDS OF WISDOM

We all know that the undergraduate studies comprise a hard time for students for they usually have trouble defining their career plans. The lack of experience and job opportunities in their study field versus the high standard labor market patterns may make them feel frightened and unprepared. Besides, they neither learn how to deal with the corporate

environment nor they have entrepreneurship knowhow during their academic lives, which result in a possible wasted potential.

We're convinced that the students want to have a hands-on experience and invest their energy into a project they feel passionate about. That's why we are sure that believing in our students' potential may bring out great outcomes. The first place we conquered at the WFCP Global Citizenship Award of Excellence speaks for itself and that's all Lapassion em Rede, Brampsol's methodology is all about: the students are the protagonists of their own development and future.

## NEXT STEPS

The Lapassion em Rede, Brampsol's methodology, is a multi-annual program with gradual expansion aiming to integrate participants from the Community of Portuguese Language Countries, Latin American countries, and Lusophone Commonwealth on the SDGs agenda.

Our growth perspective is the definitive institutionalization of active methodologies in the students' education to promote their protagonism and autonomy. The project's objectives go in the same direction as IFG's proposal of Professional and Technological Education, which foresees the integration of knowledge to reality proposing an omnilateral education promoting their emancipation and engaging them to act critically in the various spheres of society and labor world.

We aim to spread the methodology internationally throughout the world for this innovative way is easily replicable and potentially scalable to reach as many students as possible to offer this opportunity of being part of something bigger than themselves by actively networking worldwide.







## SILVER AWARD

**Project Name:** Global Citizenship

**Name of Institution:** Shaanxi Polytechnic Institute

**Category:** Global Citizenship

**Country:** China

## INTRODUCTION

Founded in 1950, Shaanxi Polytechnic Institute (SXPI) is located in Xianyang, China. Covering an area of 79 hectares, SXPI has 22,000 full-time enrolled students and 1,180 staff. SXPI has been recognized as one of the ten A-level Tertiary Vocational Education and Training (TVET) institutions by the Chinese Ministry of Education and Ministry of Finance. The institute provides a range of credentials, from three-year diplomas in vocational education and training for its full-time on-campus learners to a range of short-term outcomes-based training programs for industry, TVET colleges, schools, farmers, and people who must retrain to find employment.

## AWARD-WINNING PROJECT

- A global citizen is defined as someone who is aware of and understands who they are, where they come from, and how they can use their skills and education to contribute positively to a wider global community - they are a citizen of the world. SXPI 5 Year Strategy Plan (2021-2025) outlines how SXPI will engage with the global TVET community of practice and align its curriculum, teaching, learning and assessment, and

quality management process with globally agreed standards. The objectives of globalization are:

- To provide access to all levels of technical and vocational education and training for all people, regardless of age or gender, in Shaanxi province, nationally and internationally.
- Deliver, through globally aware teaching staff, an outstanding educational experience for all learners who can effectively apply techniques and skills at the front line of industry in a global world.
- To cultivate culturally conscious, work-ready graduates with the relevant knowledge, attitudes and skills for employment, decent jobs, and personal growth
- Actively collaborate with industry on workforce development - the on-going extension of workplace knowledge, skills, attitudes, and abilities of their employees.
- Actively collaborate with international partners on the provision of quality applied education to the world
- To cultivate a cultural awareness within the institution and to encourage learners and teachers to be global citizens in the 21st century, SXPI:





- Created opportunities for staff and students to physically participate in overseas cultural exchange programs in partner colleges in New Zealand, Germany, Canada, USA, and Australia. To prepare participants for the overseas exchange activities SXPI established both an English language and culture and German language and culture training centers.
- Provided opportunities for staff and students to participate in programs with partners in Russia, South Korea, Japan, and Indonesia. All these programs included a joint cultural awareness component.
- Worked with global business partners - Japan Omron Corporation, German DMG Corporation, Japan Fanuc Corporation, USA Yizi Group – in establishing joint industry-institute Training Centers on SXPI campus. These institutes serve to expose learners and teachers to global practices in TVET provision, assessment, and recruitment.
- With financial support from the Chinese and Indonesian government, SXPI held a technology enabled series of virtual Chinese and Indonesian language and culture camps for Chinese and Indonesian teachers and learners.
- With Madison College in USA, and using synchronous technologies, SXPI initiated a Virtual Cultural Exchange program. This raised awareness of the differences in culture and language with Chinese and American learners.
- Participating in the development of internationally aligned skills standards and teaching resources to explore the international development model of culture plus vocational skills initiatives – China Bridge.
- Engaging with the private sector - Shaangu Group of companies and Power Plants in Indonesia - to facilitate programs in language application training, health and safety training, professional skills training, and staff capability building.
- Actively recruiting international students from Indonesia, Russia, and Bangladesh for its diploma programs (approximately 200 to date) and recruiting international teachers from USA, Australia, and Germany (approximately 7 to date).

## WORDS OF WISDOM

Global citizenship initiatives, by their very nature, are collaborative projects. This collaboration needs to be clearly articulated and based on an agreed framework. This framework should include:

- **Provision of Capability Development:** Capability development should be offered that is based on an outcome focused, cultural-self aware, global citizenship learning design framework. This framework integrates TVET fundamental skills with global citizenship education.
- **Assessment:** Agreed assessment practices In TVET environments need to be shared. These practices should be conducted in and for the context of real situations or settings and be relevant to the current and future employment practice of the participant. Providing evidence for comparability of candidate performance across borders - mobility of workforce.
- **Credit Accumulation and Transfer (CATS):** To facilitate the movement of credits between institutions, trades certification agencies, professional registration bodies,

## INTERNATIONAL VALUE:

- Globally, learners and teachers cross-border mobility in multiple cultural settings is a critical activity for global institutions. They need to actively cultivate their learners and teachers' global vision. SXPI has demonstrated a focus on developing international networks with TVET institutions and agencies that will encourage learners and teachers to embrace global citizenship. Successful SXPI initiatives were:





within national borders and across international jurisdictions, approved validation systems are being evaluated within the center.

## NEXT STEPS

SXPI is currently implementing several collaborative initiatives to promote the concept of global citizenship within the institution and externally. These initiatives will ensure SXPI learners and teachers appreciate the multicultural world they live in and demonstrate how they can participate in activities that benefit the global world, making the world more peaceful, sustainable, and fairer. Future initiatives identified are:

- With international UNESCO/UNEVOC centers of

excellence, SXPI aims to globalize teaching, learning, and assessment practices and measure SXPI educational quality against international benchmarks.

- With partners in Zambia and Nigeria, SXPI develops and implements a range of internationally aligned outcomes-based TVET programs, ensuring learners develop globally acknowledged industry-required skills and competencies.
- With international TVET educational institutions, SXPI aims to establish international exchange programs for learners and teaching staff. These will enable teachers and learners to broaden their learning horizons and gain global recognition for their knowledge, skills, and attitudes.



## BRONZE AWARD

**Project Name:** Questar III and HVCC STEM High School

**Name of Institution:** Hudson Valley Community College

**Category:** Global Citizenship

**Country:** United States of America

## INTRODUCTION

Nationally ranked for student success, Hudson Valley is one of the State University of New York's most acclaimed colleges, offering 80+ associate degrees and certificate programs in the heart of New York's Capital Region. Accredited by the Middle States Commission on Higher Education with curricula approved by the New York State Education Department, the college serves approximately 10,500 students in three schools: Business and Liberal Arts, Health Sciences, and Science, Technology, Engineering and Math (STEM). Hudson Valley currently offers 30 Technical and Vocational Education and Training (TVET) associate degree or certificate programs, with other programs under development.

## AWARD-WINNING INSTITUTION

On September 10, 2021, Hudson Valley Community College (HVCC) and Questar III BOCES celebrated the grand opening of the Questar III and HVCC STEM High School (hereafter "STEM High School"), on HVCC's main campus in Troy, New York. STEM High School is housed in HVCC's Lang Technical Building, which underwent \$3 million in renovations to prepare for the transition. This is the first New York State Pathways in Technology (P-TECH) and Smart Scholar Early College High School to be hosted on a community college campus in the Capital Region of New York State.

STEM High School's inaugural cohort was comprised of 36 students and is anticipated to serve an additional 40 students each year going forward. Enrollment is open to students across seven counties and 46 school districts looking for pathways to well-paid careers in the fast-growing, in-demand STEM fields of computer information systems, engineering technology, environmental science and protection technology, and health sciences.

These pathways are offered through the New York State Pathways in Technology (P-TECH) and Smart Scholars - Early College High School (SS-ECHS) programs funded through grants from the State Department of Education. P-TECH is funded for \$3 million over six years and Smart Scholars - Early College High School is funded for \$870,537 over six

years.

## RESULTS AND ACCOMPLISHMENTS

STEM High School has been a great success, having a positive impact on the HVCC campus community, while also providing the STEM high School students with an educational experience that they cannot have, if they were attending their home institutions. STEM High School students are enrolled in HVCC courses, concurrently with their high school classes. Further, STEM High School students can earn a full associate degree from HVCC, at no additional cost to families, while completing high school. Lastly, and perhaps most importantly, families regularly share with STEM High School staff, that they no longer need to force their students to come to school, because their students love coming to school. In fact, the students do all that they can to avoid missing school! They feel that it is a "safe space where they belong," and where their academic achievements, abilities and interests are celebrated!

## INTERNATIONAL VALUE:

STEM High School utilizes grants, that aim to provide educational opportunities to traditionally underrepresented groups, which includes foreign-born students. In the future, these students can return to their countries of origin, bringing with them their knowledge, training, and skills – to help develop Human Capital and facilitate Capacity Building.





Additionally, STEM High School prepares students for jobs that could take them all over the world, through business and industry partnerships.

Additionally, STEM High School students can engage with instructors and students from across the globe, as they are enrolled in HVCC courses, with the general study body – which includes International Students. Therefore, STEM High School provides their students with Global Learning Opportunities and Citizen Diplomacy experiences, both of which facilitates the development of Cross-Cultural Competencies and Global Citizenship.

## WORDS OF WISDOM

Questar III and HVCC STEM High School is the perfect example of an out-of-the-box collaboration between K-12 and Post-Secondary Education. The success of this collaboration is rooted in: 1) the methodical determination of the needs of the students, faculty and staff; 2) the intentional

design of a rigorous and exciting curriculum, that meets the needs of students; 3) the creation of a learning space, that fully supports the curriculum; 4) the full integration of STEM High School students into the campus community, and most importantly; 4) An unwavering commitment to student success, on the part of both Questar III BOCES and Hudson Valley Community College!

## NEXT STEPS

Hudson Valley Community College is committed to ensuring the sustainability of the STEM High School and looks forward to a long and continued collaboration. As the interest in STEM High School continues to increase, STEM High School plans to increase the number of students enrolled, and HVCC will welcome the additional students with open arms. Further, HVCC looks forward to awarding associate degrees to STEM High School students, concurrent with the awarding of their High School Diplomas.







# INDIGENOUS EDUCATION AWARD



## GOLD AWARD

**Project Name:** Implementing Virtual Reality Technology for Anishnaabemowin Revitalization

**Name of Institution:** Georgian College

**Category:** Indigenous Education

**Country:** Canada

## INTRODUCTION

Georgian College is fortunate to be in a region with a significant Indigenous presence with an original first language to the area, Anishnaabemowin (Ojibwe language).

The college is recognized for a focus on Indigenization, having received the 2022 Colleges and Institutes Canada (CICan) Gold medal for the Indigenous Education Excellence Award in part for its commitment to the preservation of Anishnaabemowin. Also recognized was the innovative delivery of the Anishnaabemowin and Program Development (ANPD) program, which has graduated language champions critical to Anishnaabemowin revitalization since 2013. A new one-year certificate program will also start in 2023 MaajiiAnishnaabemdaa (Start speaking the Language).

## AWARD-WINNING INSTITUTION

Georgian has undertaken proactive measures to ensure the preservation of Anishnaabemowin (Ojibwe language), which is the predominant Indigenous language in the college's catchment area. There were many historical factors that contributed to the erosion of all Indigenous languages across Canada. As a result, Anishnaabemowin was at a critical state of survival in our region. Very few people under the age of 50 could converse in the language and there was little intergenerational transmission, which is critical to language survival.

Indigenous community partners represented through our community advisory circle, the Anishnaabe Education and Training Circle (AETC), understood that without immediate action, the language would become extinct in our region within the next decade. The AETC is made up of local First Nations, urban based service organizations, Metis community, and Indigenous Women's Groups, along with students and alumni representatives.

The AETC in partnership with the college undertook the development of the Anishnaabemowin and Program Development diploma program, the first diploma program dedicated to Indigenous language retention at the college level in Ontario.

Over the last decade, the college's leadership around preserving language has grown. During the COVID-19 pandemic, Georgian introduced virtual reality (VR) as an innovative way to take language learning to the next level while fostering a sense of connection at a time when many students and faculty were isolated.

The Anishnaabemowin and Program Development diploma includes four immersive Indigenous language VR worlds that explore language in the home, community, workplace, and natural world. Each world provides students with engaging ways to learn and practise comprehension and speaking skills, and spaces to gather and socialize. The worlds also include Indigenous elements, so students can learn about their significance and other key teachings.

All of Georgian's VR assets for language learning will eventually become open source so they're available to other institutions for use in their Indigenous programs.

Georgian is one of the world leaders in the exploration and integration of virtual reality in its programs and one of only a few postsecondary institutions offering Indigenous language education in a VR environment. Colleagues at postsecondary institutions and K-12 schools across Canada and the world are looking to Georgian as an example of excellence and seeking out our expertise.

Georgian students and graduates are now language champions developing and implementing sustainable programs in communities and organizations and positively affecting revitalization and preservation of both Indigenous language and culture.

## RESULTS AND ACCOMPLISHMENTS

### The objectives included:

- Developing an additional language learning resource for students in the ANPD Program
- Utilize the developed resource to market and promote the ANPD program in communities
- Develop an open-source learning resource to support



Anishnaabemowin language learning in elementary, secondary, post-secondary schools as well as in First Nation and urban communities

- Develop a learning resource to be shared in Anishnabek First Nation communities
- Determine if virtual Anishnaabemowin learning would be a successful delivery mode for language learning
- Provide opportunity for students to practice and become familiar with Virtual Reality learning

All the objectives were met. We are currently in the process of rolling out to the world as an open-source learning resource. School Boards across the region are eager to have the resources in place as soon as possible. Once established the resource will have far reaching impacts, at all levels, elementary, secondary, post-secondary and directly in the community. Students and ANPD graduates proficient in VR technology will have an added advantage upon graduation.

Our experience working through this project will benefit the Indigenous Studies area and the college as a whole. As we utilize the knowledge gained from this undertaking and move on to the next stage of development of additional resources.

## INTERNATIONAL VALUE

Anishnaabemowin is spoken in a variety of dialects on both sides of the Canadian/American border in the Great Lakes region of Ontario. It is the predominant language in the bordering states of Michigan, Wisconsin, and Minnesota. Anishnaabemowin is in peril in these areas as well. Our learning resource will be open source and can be utilized by educators in the United States of America. It is transferable and applicable wherever one wishes to learn Anishnaabemowin.





## WORDS OF WISDOM

Creating a strong working team with diverse skills is the key. Bringing knowledgeable and experienced individuals into the project will expand ideas related to planning and implementation. Network and create partnerships with community members to promote and market your project to garner their support and awareness. This could be individuals directly connected to Indigenous languages or others that will promote your project for its innovation. Exposure through different channels of lead experts. We marketed and presented the project to many areas; school boards, First Nations, Chiefs of Ontario, Indigenous organizations, to others working on language projects, and to XR/VR groups that would further the communication of what we had to offer.

Perseverance, running into challenges when working with technology occurs regularly during the developmental stage. Be ready for trial-and-error experiences. Share the project through various platforms; if the goals are not generating interest, re-evaluate and try new ideas.

## NEXT STEPS

Georgian College is among a very few postsecondary institutions in the world to offer Indigenous language education in an immersive virtual reality environment and one of only a few in Canada. Many schools offer a course in Indigenous language, however very few offer a two-year diploma program completely dedicated to language revitalization. Virtual reality, a relatively new technology to education, is changing and enhancing the learning landscape for students and is part of Georgian's bold new digital innovation strategy.

We plan to continue to enhance and build upon what has been started to date. We are hopeful that we will see increased enrolment in the ANPD and MAJII programs, particularly among younger generations, as they become exposed to, and experience the technology in a learning environment. The possibilities are limitless. In terms of utilizing technology as an additional resource to support the revitalization and survival of Anishnaabemowin and other Indigenous languages.





## SILVER AWARD

**Project Name:** Indigenous Virtual Home Care Aide. Indigenization of Red Deer Polytechnic

**Name of Institution:** Red Deer Polytechnic. Lloyd Desjarlais, Director, Indigenous Initiatives

**Category:** Indigenous Education

**Country:** Canada

## INTRODUCTION

At the World Federation of Colleges and Polytechnics (WFCP) Awards of Excellence 2023, Lloyd Desjarlais, Director of Indigenous Initiatives, accepted the Silver Indigenous Education Award on behalf of Red Deer Polytechnic (RDP). Having worked at RDP for more than six years, Lloyd's expertise and ability to build relationships have made a meaningful impact at the Polytechnic and in communities. Lloyd has demonstrated collaborative and engaging leadership, sharing his knowledge about Indigenous ways of knowing and being with students, employees and community members. As Director of Indigenous Initiatives for the past three years, Lloyd has played an instrumental role in Red Deer Polytechnic demonstrating its commitment to Indigenous Education through the Indigenous Education Strategic Plan and addressing the Truth and Reconciliation Commission of Canada's 94 Calls to Action.

## AWARD-WINNING PROGRAM

In November 2018, Red Deer Polytechnic established Building Bridges: An Indigenous Education Strategic Plan, which consisted of five priority areas. These areas of priority identified more concentrated efforts across the institution to Indigenize and build meaningful and lasting relationships with regional Indigenous communities. The submission for the award was based on two main areas of this plan. The first part is professional development which includes building an understanding of what Indigenization of higher education means at Red Deer Polytechnic. The second part of the submission was highlighting Indigenous based programming that has resulted from building respectful and reciprocal relationships with the regional Indigenous communities.

From the very beginning of the Indigenization process at RDP, there was a need for professional development throughout the entire institution to help employees fully understand the Polytechnic's commitment to Indigenous Education. These important professional development opportunities also complemented RDP's commitment to the Truth and Reconciliation Commission of Canada's 94 Calls to Action

As an institution, we are proud to say that more than 350 individuals participated in events, seminars, courses, and conferences that focused on Indigenization. These participants included members of the Board of Governors and Executive Leadership Team, Deans, Directors, faculty, and employees from various services departments. Many attendees had little or no knowledge about the history, cultures, and languages of the regional Indigenous communities. This gap in Indigenous knowledge was important to address.

The second part of the submission was a result of the relationship forged with a local Indigenous Nation which had requested virtual reality (VR) training in the Home Care Aide program. Red Deer Polytechnic partnered with this Nation and a VR tech firm located in Calgary to co-develop a VR based Indigenous Home Care Aide program. Through this innovative collaboration, a cohort of 20 students was virtually situated within the context of an Indigenous community. This program has changed the delivery method, facilitating increased understandings for students about how Indigenous communities function, which can be very different from mainstream society.

## RESULTS AND ACCOMPLISHMENTS

The vast professional development opportunities at the institution have resulted in a meaningful culture shift that has resulted in the development of an Equity, Diversity, Inclusion, and Indigenization department. This department continues to focus on EDII projects throughout the institution. The intent from the strategic plan was to ensure employees, students and community members had a foundational understanding of why Indigenization was important.

In addition, the Building Bridges: An Indigenous Education Strategic Plan is being reviewed and revised with a continued emphasis on authentic Indigenous learning experiences. These Indigenous learning experiences include culture camps, Indigenous summer youth camps, Indigenous curriculum and program development, collaboration with Indigenous post-secondary institutions, and providing in-Nation training and programming for individual Nations as they deem necessary.

As an institution, we have also resumed the ongoing relationship building with the regional Indigenous Nations, which have been keen on education and community development as the COVID-19 pandemic subsided. During the pandemic, the Nations reflected on what they need to maintain their communities. As a result, they have requested partnerships with Red Deer Polytechnic to deliver programs in their communities, ranging from trades, education, social work and business. These initiatives and programs such as the VR Indigenous Home Care Aide continue to guide us to our goals of addressing the 94 Calls to Action that fall within the Polytechnic's mandate.

## INTERNATIONAL VALUE

As Red Deer Polytechnic moves forward with Indigenization and providing unique learning opportunities, this can also be applied internationally. The Truth and Reconciliation Commission's Call to Action 93 calls for newcomers to Canada to be educated on Indigenous history, residential schools, culture and languages. In recent years, the number of international students at RDP has increased significantly to more than 600 students. By continuing this approach, Red Deer Polytechnic has taken significant steps to ensure every international student has an opportunity to learn about Indigenous Peoples in Canada.

Additionally, by continuing to provide Indigenous Education, we are helping the entire Red Deer Polytechnic community understand the complexities of the various Indigenous Nations regionally. Many have their own unique cultures, languages, histories, and ways of knowing that are rooted in their traditions. This is important for all Canadians to learn because Indigenous Peoples are not all the same.

## WORDS OF WISDOM

From this experience, there have been many learnings that can be applied in partnership with other institutions and organizations.

1. Don't be afraid of what you do not know. Many individuals in our institution have had an interest in learning but had no idea where to start, which can cause inaction. Any place is a good start if people are willing to learn and be open.
2. Mistakes will be made, but do not be discouraged. Building relationships with Indigenous Peoples and listening to their stories and their experiences will guide you through the Indigenization process. Work with the communities and acknowledge your vulnerability, so the mistakes can be minimized.

3. Do the work internally and in collaboration with communities. It is easy to create a plan and say publicly we commit to Indigenization or Truth and Reconciliation. Invest adequate resources to ensure that the work is done right. Action and continuing beyond the performative gestures are needed.

## NEXT STEPS

These programs will continue to progress and move forward. As mentioned, the Indigenous Education Strategic Plan is being redesigned with input from the local Indigenous Nations. In this new plan, there is a commitment to reduce barriers and increase access to post-secondary education for Indigenous students, along with growing relevant cultural and academic supports, collaboration with Indigenous post-secondary institutions and the creation of an outdoor Indigenous learning space on campus. Additionally, the VR Indigenous Health Care Aide components will be utilized throughout the entire program to conveniently increase student exposure to Indigenous community realities and alternative approaches to home care.







## BRONZE AWARD

**Project Name:** Canadore College and the First Peoples Centre

**Name of Institution:** Canadore College of Applied Arts and Technology, Canada

**Category:** Indigenous Education

**Country:** Canada

## INTRODUCTION

For over 50 years, North Bay, Ontario's Canadore College has partnered with organizations, social service providers and funding agencies with incredible results. The College has harnessed innovative practices to develop the most leading-edge student success services model in Ontario. Our graduation rates have been well above the provincial average for the last five years, and the success rate of our Indigenous students exceed those of mainstream college populations in Ontario.

Canadore is a regional leader in building thriving, healthy and prosperous communities, partnering with more than 40 regional social and health services agencies on activities that range from proactive mental health programs to poverty reduction through education initiatives. Canadore is committed to improving the quality of life for every member of the region.

From the time Canadore College opened its doors in 1967, we've taken pride in creating the best possible environment for learning and is the college of choice for students from across the province and around the world. Our focus is on student success, program and service excellence, connection to community, sustainability and innovation. The college graduates approximately 1,000 students each year and has over 40,000 alumni.

**Canadore's First Peoples' Centre:** Each year, Canadore College welcomes approximately 700 Indigenous learners to our three campuses in the City of North Bay, located on the traditional territory of Nipissing First Nation and on lands protected by the Robinson-Huron Treaty of 1850. Our satellite campus is in Parry Sound, located on the traditional territory of Wasauksing. Last year over half of those learners attended programs offered on campus, whereas others went to Indigenous partner campuses or learned and earned credentials in their home communities. Many more chose a part-time learning path. Nearly 20 percent of Canadore's total on-campus student population celebrates Indigenous heritage from diverse nations.

The First Peoples' Centre offers comprehensive cultural and

academic support for Indigenous learners attending Canadore and reaches out to many more through recruitment, promotion, and community outreach projects.

## AWARD-WINNING PROJECT

Each year, Canadore College welcomes approximately 700 Indigenous learners to our three campuses in the City of North Bay, located on the traditional territory of Nipissing First Nation and on lands protected by the Robinson-Huron Treaty of 1850. Our satellite campus is in Parry Sound is located on the traditional territory of Wasauksing. Last year over half of those learners attended programs offered on campus, whereas others went to Indigenous partner campuses or learned and earned credentials in their home communities. Many more chose a part-time learning path. Nearly 20 percent of Canadore's total on-campus student population celebrates Indigenous heritage from diverse nations. The First Peoples' Centre offers comprehensive cultural and academic support for Indigenous learners attending Canadore and reaches out to many more through recruitment, promotion, and community outreach projects.

Canadore College and the First Peoples' Centre recognizes itself as a leader in Indigenous education and is committed to provide quality programs and services to Indigenous learners for more than 25 years. These services have evolved over the years and continue to meet the needs of Indigenous learners. In October 2014, Canadore along with its partners in education and the Indigenous Circle on Education met to develop a five-year strategic plan to ensure the continued growth and development of the First Peoples' Centre. The 2015-2020 strategic plan outlined 7 key priorities which include changes to governance, changes to curriculum and learning approaches, increasing knowledge and understanding of Indigenous people, and increases to the number of students and staff who identify as Indigenous. These priorities continue into the next strategic phase for the First People's Centre and for Canadore College. The First Peoples' Centre offers comprehensive cultural and academic support for Indigenous learners attending Canadore and reaches out to many more through recruitment, promotion, and community outreach

projects. The School of Indigenous Studies was developed in 2016 and continues to bring together and build on the successes of programs designed specifically to address Indigenous community issues and goals. Many of these programs are culture-based, employ Indigenous faculty, and use land-based and experiential learning—all critical to program quality. Course work reflects Indigenous Knowledge, worldviews, and ceremonies, particularly in the Indigenous Wellness and Addictions program. The success of these programs is seen in the success of our students with an 80.5% retention rate for Indigenous learners. Other programs are offered in partnership with Post-Secondary Indigenous Institutes through community-based training, which ensures accessible, quality educational experiences that meet the unique needs of Indigenous communities and industry partner.

## RESULTS AND ACCOMPLISHMENTS

In support of its Strategic Plan, Canadore College has developed a Tipi (Transforming Indigenous Peoples' Inquiry) model as an overarching framework to guide the college when working with Indigenous communities. Having a model through which to associate Indigenous initiatives ensures that each initiative, though valuable on its own, contributes to a sustainable direction for the college. The work of the First Peoples' Centre is nominated on its comprehensive initiatives at the college include culturally appropriate learning spaces, community-based delivery, community partnerships, Indigenous quality assurance standards, Indigenous STEAM, an Indigenous research protocol and a focus on Indigenous learning outcomes.

The First Peoples' Centre provides culturally based services and supports to students and their families. They include the Community-based division of the First Peoples' Centre where First Nation communities identify their own training needs, identify a program that will meet those needs, explore funding options, recruit candidates, host the training, provide community supports for the participants and explore employment options upon completion. Canadore College has a long history and has very strong relationships with the identified partnership communities. The goals of community-based training are to respond to the employment and training needs in collaboration with Indigenous communities, provide flexible and relevant programming for students, promote and enhance access to post-secondary education for Indigenous peoples, and meet local community labour market trends and employment gaps with our partners.

Further, through the Manager of Indigenous and Business Relations, the unique employment pathways and needs of Indigenous learners are addressed. This includes the Indigenous STEAM program (Science Technology Education Arts and Math) which combines modern technologies with Indigenous cultural practices and values; Understanding that Indigenous Peoples have been practicing STEAM (Science, Technology, Engineering, Arts and Mathematics) for thousands of years, the KM STEAM Program honours and celebrates the land and its teachings. Developed in partnership with Actua, KM empowers young people to see their future educational and career success in high-skill STEAM fields—while giving them renewed confidence in their Indigenous identity and unique place in the world.

The First Peoples' Centre also homes Academic Support for on campus Indigenous students. The FPC Indigenous Counsellor assists students in a number of areas including academic, personal and financial issues, advocacy, testing, peer tutoring, mentorship, scholarships and bursaries information, and on and off campus service referrals. The FPC Recruitment and Retention Officer provides college information to prospective students, visits F.N. communities and schools, provides virtual and on-site college tours, promotes college activities, provides leadership and support to the Ca.

## INTERNATIONAL VALUE

Much of the work in the First Peoples' Centre is at a local and Indigenous community level. However, for 2022-2023, Canadore's International office worked with the First Peoples' Centre to provide several students to participate in an upcoming Global Skills Opportunity Program in Costa Rica. This will help students develop knowledge in key areas such as cultural awareness and understanding as well as the potential to develop internationally transferrable skills. During this visit it is anticipated that our Indigenous participants will share in cultural exchange through cultural teaching, stories, games, and some practices, with opportunities for students to facilitate some of the presentations and cultural workshops, such as beading and story sharing. Post pandemic, we look forward to furthering our commitment towards higher applied education at the international level.

## WORDS OF WISDOM

When students think about home, they think about relationships, family, community, food, celebrations, and traditions. The First Peoples' Centre provides in all these areas and is quite often referred to as a home away from home for students and their families. Transitioning to a new

city is a significant event in life, it is a time of great excitement as well as a time of great uncertainty causing feelings of worry and anxiety. For many learners, this may be the first time they have moved away from the familiar surroundings of their community and family. Many may not have had to find a new home and deal with all the added responsibility that comes along with that. The stress of attending college and the workload of being a student, in addition to family and other responsibilities, can be overwhelming. The First Peoples' Centre has established a wholistic support network to provide support, guidance, information and reassurance to our students and their families throughout their time with us here at Canadore.

## NEXT STEPS

The First Peoples' Centre prioritizes the importance of building relationships and establishing program partnerships with Indigenous Institutes across the province. These ongoing collaborative relationships are built on trust through the development of these partnerships. The common goal has been ensuring that the students have access to Canadore College programs with the Indigenous Institutes. Collaborative efforts with Indigenous Nations and Indigenous Educational Institutes are a high priority for Canadore College and the

First Peoples' Centre and we are regularly expanding opportunities. Partners in Education include First Nations Technical Institute, Anishinabek Educational Institute, Seven Generations Education Institute, Kenjgewin Teg and Oshkimpimache-O-Win: The Wenjack Institute.

Canadore College & Kenjgewin Teg Partnership Renewal Ceremony commenced in 2022, where Kenjgewin Teg and Canadore College signed a multiyear partnership agreement which included a comprehensive list of community-based postsecondary education programs for partnership going forward. The agreement's foundational purpose is rooted in recognizing truths, encouraging reconciliation, and strengthening relationships, trust, respect and accountability. The organizations will strive to provide enhanced culturally-relevant learning for Indigenous-Anishinabek learners; assert a student-centred approach and solutions; support stakeholders in increasing cross-understanding and reciprocity among Indigenous and non-Indigenous peoples; create and implement intellectual and cultural traditions of Indigenous-Anishinabek peoples through community-led postsecondary education and on-campus curriculum; and learning approaches that are relevant and appropriate and support reconciliation.







# STRATEGIC LEADERSHIP AWARD



## GOLD AWARD

**Project Name:**

**Name of Institution:** AI for every ITE Student

**Category:** Institute of Technical Education, Singapore

**Country:** Singapore

The Institute of Technical Education (ITE) Singapore, established as a post-secondary institution in 1992 under the Ministry of Education, is a principal provider of career and technical education and a key developer of national skills certification. Skilling Singapore for the future economy, it offers:

- Pre-Employment Training for youths after secondary education
- Continuing Education and Training for adults
- Workplace Learning and Work-Study Programmes with employers.

Under its 'One ITE System, Three Colleges' Governance Model, ITE has three Colleges – ITE College Central, ITE College East and ITE College West. Each College is empowered to develop niches of excellence to enhance students' success.

## AWARD WINNING INSTITUTION

To prepare students for Digital Economy, ITE embarked on developing 'AI (Artificial Intelligence) for Every ITE Student' Programme. The push is part of ITE's Digitalisation Strategy focusing on A-B-C-D Digital-Tech Domains (AI & Robotic Process Automation; Big Data Analytics & Blockchain; Cybersecurity & Cloud Computing; Drones and Robots). Aligned with Singapore's National AI Strategy to deepen AI usage, this project integrates AI into the Core Curriculum to help every ITE student acquire AI skills for application in future jobs and/or gain emerging skills to pursue careers in AI-related fields.

Recognising that AI is both a Horizontal Competency across industry sectors, as well as a Vertical Competency, CEO LOW Khah Gek introduced and led the project to introduce AI Competencies to ALL ITE students and in sectorial-specific curriculum.

### The three levels of AI skills intensity offered are:

- Baseline AI Competencies for All: All Year-One students complete a baseline e-learning course on understanding the capabilities and limitations of AI, including ethical and

societal implications and must pass an assessment to validate mastery. This bold digital inclusiveness strategy caught media attention, with Page One Article by The Straits Times (28 Sep 2020) – All ITE students to learn Artificial Intelligence in first year to take on future jobs.

- AI Use Cases in Different Trade Courses for All: AI applications and use cases are integrated into various courses, such as facility management and customer service, through the use of IoT, sensors, data analytics and chatbots. Students participate in AI-related projects to gain hands-on experience and awareness on how AI is used to solve real-world problems.
- AI Specialisation: For students who have aptitude for coding, programming and machine learning, ITE provides specialised AI courses to enable them to acquire deep AI competencies for developing AI applications and solutions in four industry sectors – Cybersecurity, Finance, Logistics and Manufacturing.

To ensure industry-relevance, ITE partners major tech players (Intel, NVIDIA, SenseTime, Omron) in co-designing and reviewing its AI curriculum, including transfer of knowledge and expertise to faculty. ITE also works with partners to set up new AI learning facilities with internship opportunities for students to work on projects under industry experts' guidance.

ITE creates an 'AI-friendly' environment to support students in their learning. For example, AI tools are used to facilitate student learning, for assessment and marking, as well as to help students with their job search by matching their skills with the right learning and career opportunities.

## RESULTS AND ACCOMPLISHMENTS

According to the Digital Maturity Index (DMI) measured by Digital Government Agency (GovTech), ITE leap-frogged from 29 points (Stage 2) – 'Digital Literate' (out of 4 stages) – to 59 points (Stage 3) – 'Digital Performer' – from 2019-2021. This affirms ITE's success in building key digital capabilities, digitalised processes, and strong digital culture. For this, ITE won Excellence Award by OpenGov Asia in Feb 2022, for innovations in digital and AI in Education Sector.





ITE's students, 14,000 intakes annually, have benefited from a strong AI learning culture and environment, with exposure to baseline AI skills and potential applications. For instance, specialised AI facilities were built to accelerate student learning, like the AI Lab (collaborating with Microsoft), a Teaching and Resource Centre for educators facilitating students' exploration of AI tools and responsible practices. For students who have acquired deeper skills, they can access growing AI-related careers in in Four Sectors – Cybersecurity, Finance, Logistics and Manufacturing where AI is widely adopted. They can progress to ITE's Work-Study Diploma in Applied Electronics & AI, too.

ITE also focuses on the informal curricula by assembling students from different disciplines to develop various soft skills through AI Art, AI Calligraphy and AI Music. By making AI widely accessible to students, they have proven their capabilities by winning Top Prizes at national and international platforms, including International Exhibition for Young Inventors Competitions.

Besides student learning, ITE also leveraged AI to enhance delivery of teaching and learning. For instance, AI-assisted role-play assessment system is used for student interview training.

## INTERNATIONAL VALUE

Locally, ITE worked with AI Leaders like Intel to run free 'AI for Citizens' online courses for all interested Singaporeans, to raise AI awareness. It has developed short serial Certificate of Competency (CoC) courses in AI to support the National SkillsFuture Movement for working adults to continually reskill and upskill.

At the faculty level, ITE proactively facilitated various exchanges on AI-related projects with overseas institutions, through the Community of Practices (CoP) from the Global Education Network (GEN). Biennially, ITE partners Hong Kong Vocational Training Council (VTC) to organise the International Student Seminar involving over 600 students from six countries where such applications are showcased.

To benefit the larger international Career and Technical Education (CTE) community, ITE senior and academic leaders have shared its AI Strategies and Digital Experience at international platforms, including the 6th International Technical and Professional Education and Training (TPET) Conference 2022 organised by ITE triennially since 2006.

## WORDS OF WISDOM

Integrating AI activities into the curriculum is essential to prepare students for the future of work and equip them with necessary skills to succeed in a rapidly changing job market. A good understanding of AI provides a strong foundation for more advanced topics. For learning to be authentic, incorporating real-world projects is necessary, as students learn best when they apply their knowledge and skills meaningfully. Institutions can partner companies to have access to real problems to solve. This not only enhances students' learning experience, but also builds valuable industry connections.

As AI becomes more pervasive, it is important to emphasise the ethical considerations and responsibilities that come with it. AI is rapidly evolving and is a boon for many careers, including teaching and learning. Hence, students and faculty are encouraged to participate in competitions, attend



conferences and join communities of practice to stay updated on the latest AI trends and technologies.

## NEXT STEPS

The sustainability of 'AI for Every ITE Student' requires ITE to stay current with the latest updates, and wherever practicable incorporate them into our curriculum. A long-term strategy for continued implementation would include establishing key partnerships with industry, so that respective colleges will continue to be at the forefront in integrating AI education.

To prepare students for sustainable success in the digital economy, ITE seeks to empower them with career mobility. This is done through instilling in our learners a passion for learning and curiosity. Key to achieving this is the prioritisation of teacher development and organizational growth, done through our organisation excellence and staff training initiatives. We will continue to review and challenge ourselves to seek innovations and improvements to create greater value for all our students and stakeholders.



## SILVER AWARD

**Project name:** Gene F. Haas Center for Advanced Manufacturing Skills (CAMS)

**Name of Institution:** Hudson Valley Community College

**Category:** Strategic Leadership

**Country:** United States of America

## INTRODUCTION

Nationally ranked for student success, Hudson Valley is one of the State University of New York's most acclaimed colleges, offering 80+ associate degrees and certificate programs in the heart of New York's Capital Region. Accredited by the Middle States Commission on Higher Education with curricula approved by the New York State Education Department, the college serves approximately 10,500 students in three schools: Business and Liberal Arts, Health Sciences, and Science, Technology, Engineering and Math (STEM). Hudson Valley currently offers 30 Technical and Vocational Education and Training (TVET) associate degree or Certificate Programs, with other programs under development.

## AWARD-WINNING PROJECT

In August of 2019, HVCC hosted a grand opening ceremony for the Gene F. Haas Center for Advanced Manufacturing Skills (CAMS). CAMS is a \$14.5 million, 37,000 square foot facility, that has enabled HVCC to double enrollment in the Advanced Manufacturing Technology (A.O.S.) degree program and meet an urgent workforce demand for skilled

employees. HVCC collaborated with business, industry, and state government, to design and fund the construction and fitting out of CAMS.

Corporate donations included: 1) a leadership challenge gift of \$1 million from the Gene Haas Foundation, received in September 2015, 2) a donation of \$125,000 in August 2016 from the Albany-based Simmons Machine Tool Corporation (part of the NSH Group) for the construction of a state-of-the-art electro/mechanical industrial maintenance lab, 3) a \$25,000 grant from GE Power in October 2016 to develop a Student Advisement Center named in the memory of GE Human Resources Manager, Gale O'Gorman, who was instrumental in creating and sustaining GE's machinist program, and 4) a \$2.9 million grant through the Empire State Development Corporation was part of the New York State Regional Economic Development Council awards announced by Governor Cuomo in December 2017.

CAMS is a one-stop hub to support employee training and recruitment. Further, the building's design provides corporate partners with access to offices and conference space adjacent to faculty offices, student classrooms and labs. Facilities



are available for corporate demonstration purposes, shared training activities, meetings and events that connect the college to its workforce partners more than ever before.

## RESULTS AND ACCOMPLISHMENTS

CAMS is a premier facility of its kind, providing students with the professional and technical education that they need, to succeed in the 21st Century. From the very beginning, CAMS was designed with industry partners' input to increase enrollment in its Advanced Manufacturing Technology (A.O.S.) degree program and meet an urgent workforce demand for skilled manufacturing employees in the region. The program is the only one of its kind within 125 miles, has a 100 percent job placement rate, and prepares graduates for careers as CNC machinists, tool makers and industrial technicians, along with marketing, sales, procurement, and supervisory jobs.

## INTERNATIONAL VALUE:

CAMS offers students learning experiences that are not easily found elsewhere, and this includes International Students who are enrolled in programs that utilize the facility for instruction (e.g., Advanced Manufacturing, Engineering Science, Mechanical Engineering Technology). When these students return to their home countries, their home countries benefit from the training that they received and the skills that they learned. Additionally, online courses in Computer Aided Drafting and Design and Geometric Dimensioning and Tolerancing, are taught out of CAMS – making this technical training readily available to individuals outside the U.S.

Further, CAMS is an ideal facility to hold Train-the-Trainer Programs in a variety of subjects (e.g., Advanced

Manufacturing, Mechanical Engineering Technology, Computer Aided Drafting and design). Therefore, it is no surprise that there is discussion underway regarding developing such programs, as well as short-term experience programs for high school students, with various educational institutions and organizations, outside the U.S.

## WORDS OF WISDOM

Collaborations with community stakeholders, including industry, improves the quality of life for our campus community and the external community we serve. Hudson Valley collaborates with industry in a variety of ways. This includes the use of Advisory Boards, which represent the diverse needs of business, industry, and the Community, and well as receiving gifts to help advance our mission. The construction and fitting out of CAMS, is the perfect example of such collaborations. During the construction of CAMS, it was critical to solicit, receive and consider input from all relevant stakeholders, to ensure the projects success.

## NEXT STEPS

Hudson Valley Community College is committed to ensuring that CAMS is a premier facility of its kind. Thus, new facilities have been developed, such as a Robotics Lab, to support new courses and academic programs. Additionally, the college plans to expand the use of CAMS, by integrating other programs, such as Mechanical Engineering Technology, into the facility. Further, to ensure that CAMS offers students learning experiences that prepare them to meet the demands of Industry 4.0, Hudson Valley Community College intends to increase collaboration with business and industry.







## BRONZE AWARD

**Project Name:** Santé Énergie clinic-school

**Name of Institution:** Cégep de Shawinigan

**Category:** Strategic Leadership

**Country:** Canada

## INTRODUCTION

Looking to the future and open to the world, the Cégep de Shawinigan proudly defines itself as a community of people dedicated to the evolution of knowledge, to global training and to the success of its students of all ages and profiles. It offers a personalized approach and a stimulating environment that promotes the personal and professional development of all members of its community. Its research, pedagogical innovation and professional development activities take it ever further to meet the needs and aspirations of a constantly changing world.

## AWARD-WINNING INSTITUTION

This innovative project is the establishment of a clinic-school to promote the learning of our students in the Nursing and Biomedical Analysis Technology programs.

The santé Énergie clinic-school is the result of a unique partnership between the Cégep de Shawinigan and the Centre intégré universitaire de santé et de services sociaux de la Mauricie-et-du-Centre-du-Québec. This is a first in Quebec: a clinic-school set up within a health network establishment in a newly inaugurated ambulatory services center in Shawinigan.

The clinic-school's schedule and location have been adapted to promote teaching and learning. It is composed of six examination rooms and two meeting rooms. Students develop their holistic vision of the client and refer to health professionals.

The clinic-school allows Cégep de Shawinigan nursing students to evolve in a front-line and stimulating environment. Students can develop their skills in a real-life context that allows them to take charge of patients from the moment they arrive until the end of their treatment. They are supervised by dynamic and competent teachers in collaboration with nurse clinicians from the routine care clinic and nurse practitioners specialized in primary care from the outreach clinic of the Centre intégré universitaire de santé et de services sociaux de la Mauricie-et-du-Centre-du-Québec.

In addition to providing a dynamic professional development environment, the population benefits from a unique health care service. The clinic allows us to offer quality care to a greater number of people.

This partnership was welcomed with great enthusiasm by the Centre universitaire de santé et de services sociaux de la Mauricie-et-du-Centre-du-Québec, especially in the context of the current health care labour shortage. This project allows students to develop and deepen their skills and learning. Working with nurse clinicians and nurse practitioners specializing in primary care provides another vision of the nurse's role.

This project is already an example in demand between colleges and health and social services centers in Quebec!

## RESULTS AND ACCOMPLISHMENTS

The benefits for students are clear: learning in real situations, in a real clinical setting, with real patients. The added value compared to hospital internships is that teachers can take the time to teach different concepts on the spot and to accompany students individually in their learning. Students can exercise more clinical judgment in relation to each person they meet and each situation they encounter.

Benefits have also been noted, particularly for people in the Mauricie region. Indeed, they have easier access to quality health services within a reasonable time frame and feel that they are contributing to the training of the next generation.

In addition to motivating students and serving the community, this innovative teaching environment mobilizes teachers. The pedagogical strategies used in the clinic-school promote learning by doing and solicit all the skills expected of our future graduates.

The managers and staff of the Centre universitaire de santé et de services sociaux de la Mauricie-et-du-Centre-du-Québec also see benefits. Indeed, through this collaboration, the staff is constantly updated on treatments, protocols, etc.

This new partnership between the Cégep de Shawinigan and the Centre universitaire de santé et de services sociaux de la Mauricie-et-du-Centre-du-Québec strengthens the collaborative ties that already exist in our other joint projects. It also allows for the training of manpower in a context of personnel shortage. This common mission unites us with this win-win formula, and we are very proud of it!

## INTERNATIONAL VALUE

This project demonstrates the quality of higher education and student learning. This real-life environment allows us to offer personalized teaching in relation to real patients, real problem situations, real illnesses, real dressings.

The nursing program has welcomed many international students for several years. Some come to study and then return to work in their country. Others come to study in Quebec and decide to stay and work because the need for manpower is very great.

This is an innovative collaboration between a higher education and a health care environment that is already spreading well beyond the Mauricie and Centre-du-Québec regions. This collaboration could extend to the international level because it is a win-win concept. Indeed, it is beneficial for both the learners and the people in the community.

## WORDS OF WISDOM

Innovation is not always easy, but it is so motivating, inspiring, and mobilizing! Developing new ways of doing things and new types of collaboration requires access to different resources, which is not always easy. In addition, most of the time, change raises many issues that slow down innovation and the development of new projects.

Our best advice is to believe and to continue despite the many challenges, by thinking bigger, by thinking differently, by considering new solutions and by moving forward one step at a time in the project. More concretely, we believe it is important to clearly define the project's objectives, to adequately plan each step and to surround yourself with the right people at the right time. In our opinion, innovation is achieved through collaboration and teamwork, which often takes us much further than we initially thought.

## NEXT STEPS

It's been just over a year since the Santé Énergie clinic-school was created. Since its inception, we have been working to continuously improve our practices and processes. We believe

that it is important to adapt to the clientele and to promote the learning of our students through continuous improvement.

Furthermore, we have a real desire to respond as much as possible to the needs of the population of the Mauricie and Centre-du-Québec regions. We are therefore analyzing different development avenues for the clinic-school, which would allow us to offer more services to the population and to expand its educational mission. In addition to the training and services offered in connection with the Nursing and Biomedical Analysis Technology programs of study, services associated with other programs of study offered at the Cégep de Shawinigan will be added soon.







# **SUSTAINABLE DEVELOPMENT GOALS AWARD**





## GOLD AWARD

**Project Name:** Repositioning RVIST for Climate Action

**Name of Institution:** Rift Valley Institute of Science and Technology (RVIST)

**Category:** Sustainable Development Goals

**Country:** Kenya

## INTRODUCTION

RVIST is a duly signed SDG Accord member and an ISO 9001:2015 certified government institution under the Ministry of Education, State Department for Technical and Vocational Education and Training. Established in 1979, the institute's mandate is to conduct training in technical and vocational education. It is located in a serene environment conducive for learning and hosts over 10,000 trainees and 500 staff and has modern training facilities and a well-established management system.

RVIST prides itself in being a Centre of excellence in Climate Smart Agriculture and a Centre of Expertise in the Dairy Value Chain.

## AWARD-WINNING INSTITUTION

RVIST is dedicated to discovering and promoting effective solutions through innovations with a view to enhancing the government's Development Agenda, the Sustainable Development Goals (SDGs) and Africa's Agenda 2063.

The current innovation efforts include: a Vegetable/Fruit dryer utilizing geothermal and/or solar energy aimed at reduction of post-harvest loss; use of solar energy to power street lights and borehole water system and the incorporation of green technology in the proposed classroom complex. The current student led projects include: a manual egg incubator suitable for start-ups using solar and geothermal energy, a Hand Sanitizer launched at height of the COVID-19 Pandemic, Kidietizer, a child friendly sanitizer and Nutri Biscuit, a nutrient loaded cracker recommended as a nutrition supplement to alleviate malnutrition. To promote economic empowerment to both the students and the local community, the institute organizes an annual Agribusiness Expo to showcase technologies and innovations in agribusiness, inspire environmental conservation and spur economic growth. Additionally, the institute is self-sufficient as it farms vegetables and other crops all year round for cost-effectiveness and sustainability.

To enhance climate action, there is in place a tree nursery

to enable production of tree seedlings to enhance the forest cover within the institute and neighboring schools and donation of trees to CBOs, NGOs, and other corporates annually. Over 5,000 trees have been planted by staff and students in the current year with two man-made forests established in the past three years. In partnership with the Ministry of Education, the institute has been earmarked to roll out a one million tree planting program through which the community and other schools will be actively involved. In recognition of the efforts in climate action, the institute was identified as a Centre of Excellence in Climate Smart Agriculture. Through this, the institute has embraced a Climate Education Exchange Program (CEEP) and hosts the Virtual Academy aimed at up-skilling youth globally to acquire relevant knowledge in climate smart practices. In partnership with Green Star Kidz Initiative, it ensures safe disposal of electronic waste periodically.

To enhance quality training and trainee competencies, our key industry partners include government corporations such as The Geothermal Development Company, KenGen and private partners such as Taidys Hotel and Legacy Hotels and Suites among others. Our international partnerships include: The Young Africa Works in Kenya, The Dairy Training Centre in the Netherlands and Climate Smart Agriculture Youth Network Global.

## RESULTS AND ACCOMPLISHMENTS

The various projects initiated within the institute have informed the creation of awareness on the SDGs. One of the key activities that has been spurred by the existing partnerships and resulting activities with both local and international partners, is the initiation of SDG dialogues both within the institute and nationally. Thus, three high level dialogues have been held within the institute in anticipation of the UN Summit in October 2023. This has been very instrumental in advocating for collective action for the SDGs.

Further, through the projects initiated within the institute, trainees have been equipped with requisite skills to not only replicate within their communities but also create sustainable livelihoods from these ventures and create jobs for their

fellow youth. Involving the youth ensures that they play a vital role in their own development as well as that of their communities and helps them learn essential life skills and citizenship. This is an important aspect of socio-economic empowerment and ultimately economic growth.

As a TVET institution, we have embraced innovation as the key driver to meeting societal needs and solving challenges related to climate change. Our key focus has been finding a lasting solution to post-harvest loss which continues to pose a threat to food security amidst the climate crisis. By exploring the use of green energy, particularly solar and geothermal, we are actively participating and providing working solutions/ best practices that can be adopted globally.

## INTERNATIONAL VALUE:

The projects at Rift Valley Institute of Science and Technology are geared towards spurring socio-economic activities and boosting the initiation of sustainable livelihoods. The goal of TVET is to develop skilled and competent human resource for both the local and international markets. Thus, the skills learnt should enable them to fill the existing labour gaps, meet community needs and priorities, create green jobs and thrive in challenging environments.

Further, collective action for the SDGs is only achievable if concerted efforts are heightened through multifaceted approaches and engagement of the community. The challenges facing humanity because of the climate crisis are similar across the globe and therefore solutions to these challenges can indeed be applied in all parts of the world. Issues such as hunger, poverty and extreme weather conditions demand the participation of the government, NGOs, and the private sector to mitigate the severe effects.

## WORDS OF WISDOM

As a TVET institution, it is not only valuable to leverage on youth empowerment but is also a noble cause in the spirit of inclusivity, mentorship, and coaching. Thus, our call

is to TVET institutions to embrace innovation as a vehicle to sustainable economic growth. Further, TVETs are duty bound to explore the SDGs and find lasting solutions to the current societal needs. Through collaborative efforts with governmental agencies and corporations and partners in the industry, research should be prioritised and undertaken to inform a practical approach to meeting community needs.

The identification of needs is a precursor to successful innovation and thus, it is crucial to institutions of learning to identify the needs of their immediate communities and seek to provide working solutions. In addition, involving the community and sensitizing its members eases the implementation process. In doing this, community uptake and adoption of new innovations and is seamless.

## NEXT STEPS

With seven years remaining to reach the 2030 target of achievement of the SDGs, it is crucial that all individuals and institutions participate actively in rolling out activities and engaging communities with a view to fostering their ultimate realisation. RVIST is committed to ensuring the sustainability of the projects initiated by investing in continuous improvement, expansion, and involvement of the relevant stakeholders. Effort will go into the establishment of a solar farm and geothermal direct use facility as a component of training and expansion into income generation for the institute.

As envisioned by goal 17 of the SDGs, we call upon the well-resourced organisations and nations to extend funding and capacity building to under-resourced institutions to tap their capabilities to maximise their potential and thus enhance their contribution in achieving these global goals.



## SILVER AWARD

**Project Name:** TAFE Queensland's Robina Campus: Holistically embedding sustainability in all aspects of operations, curriculum, and culture.

**Name of Institution:** TAFE Queensland

**Category:** Sustainable Development Goals

**Country:** Australia

## INTRODUCTION

TAFE Queensland is one of Australia's most experienced and prominent providers of vocational education and training. Having served communities for over 140 years, TAFE Queensland has a rich history of academic excellence. Comprising over 60 campuses, online platforms, and offshore programs, TAFE Queensland has a broad reach and enrolls over 120,000 students annually. The institution provides courses ranging from foundational skills to entry-level qualifications and higher education degrees, offering more than 500 programs. The statewide delivery model meets the diverse needs of students from a variety of socio-economic and cultural backgrounds, including those residing in regional and remote areas.

## AWARD-WINNING INSTITUTION

TAFE Queensland has a firm commitment to social and environmental sustainability as outlined in its Action Plan 2020-24. The Robina Campus, on the Gold Coast, is an exceptional demonstration of the institution's dedication to sustainability. The campus opened its doors to over 850 domestic and international students in July 2022 and has since grown to accommodate 1300 students.

The campus's dedication to the United Nations' Sustainable Development Goals (SDGs) is apparent in its curriculum, campus design, student experience, live training venues, sustainability committee, and organisational culture. The campus has incorporated all 17 SDGs, with a particular focus on good health and wellbeing, quality education, gender equality, decent work and economic growth, responsible consumption and production, and climate action.

The intention was to integrate sustainability into all aspects of campus design and operations, resulting in flexible spaces and facilities enabled by state-of-the-art technology, transformative service delivery models, onsite live training facilities, and empowering students to be active global citizens. The result is a five-level, technology enabled, multipurpose training space with breakout rooms, collaboration booths and student areas. Live training facilities focused on responsible

consumption and waste minimisation give students the opportunity to apply their newfound skills at various venues on campus, including the Green Fields Bar and Restaurant, SeedPod Café, hair, and beauty salons, TQ fitness centre, and The Anna Rose event space.

The curriculum at the Robina Campus has been designed to support the sustainable delivery of high-quality education, with an emphasis on inclusive and accessible learning, strong community ties, and collaboration with industry to meet the SDG goals for decent work outcomes and economic growth. Courses are tailored to meet in-demand skill areas, including commercial cookery, hospitality, early childhood education and care, sport and recreation, hair and beauty. Collaborative initiatives with the Robina State High School, such as the Sheridan Recycling Program, and with Raba Urban Farm on composting and community gardening, demonstrate the campus's commitment to sustainability.

The Robina Campus's sustainability efforts are measured using the global STARS sustainability tracking and assessment system. Due to the careful planning, design, and sustainability commitment, the campus is working towards Bronze status under the STARS rating in 2023.

The Robina Campus's positive impact is felt by its students, local community, and the communities from which its students come. It is a testament to the possibilities of sustainability-based education and an example for other institutions to follow in their quest for sustainability.

## RESULTS AND ACCOMPLISHMENTS

Project objectives were met by creating flexible facilities, incorporating sustainability into the curriculum, delivering a campus with live training facilities, and transforming service delivery models. The project delivered a technology-enabled training space with live facilities focused on responsible consumption and waste minimisation. Benefits included established sustainability processes and benchmarks, improved training outcomes, and student attraction and retention. The campus also has a joint sustainability committee, which supports student life initiatives, promoting recycling



and a circular economy, promoting physical and mental health, gender equality, and clear recycling expectations.

The project has numerous benefits for professional and technical education, including serving as a place for students, community, and businesses to connect, supporting good health and wellbeing, and encouraging sustainability-based partnerships. Sustainable procurement practices and rigorous examination of supply chains were implemented, ensuring products were sustainably and ethically sourced. Raw materials, energy, resources, and recycled products were also sustainably sourced and used in building and fit-out. Solar and energy-efficient equipment were utilised, and waste minimisation strategies, minimal use of paper, and reduced plastic usage were implemented.

The Robina Campus is a successful example of how incorporating sustainability into every aspect of campus design and operations can benefit students, faculty, and the community. The joint sustainability committee empowers staff and students and supports initiatives that promote sustainability, physical and mental health, and gender

equality. The project has numerous benefits for professional and technical education, promoting connections between students, community, and businesses, and encouraging sustainability-based partnerships.

## INTERNATIONAL VALUE

Robina Campus serves as a model for sustainable vocational education that can be applied internationally. The project team studied sustainable practices of higher education providers in Europe and America and incorporated the best practices into the planning, design, and operation of the campus. This project is being shared across TAFE Queensland, the Australian government, and the world. TAFE Queensland is a member of various sustainability-focused organisations and is always looking for ways to promote and support best practices related to the SDGs. The research study on Robina campus, completed by the Danish Institute on 'The Role of Centres of Vocational Excellence in the green transition', will also inform international best practice. Robina Campus was also recognised in the WFCPs World's Best Practice Guide Volume 4, outlining how modern construction practices were considered and implemented. The exemplary practice of the Robina Campus is transferable and applicable elsewhere, benefiting international professional education.

## WORDS OF WISDOM

Based on the experience of the Robina Campus, my advice to other individuals and institutions would be to embrace sustainability as a core value and incorporate it into every aspect of operations. This requires a deep level of enquiry, assessment, and monitoring, which can be facilitated using rating systems such as STARS. Building relationships with likeminded organisations is also essential, as it can lead to many innovative collaborations that benefit the community and the environment.

Another critical lesson learned is to involve staff early and make them feel invested in achieving the sustainability goals. This can be done through regular training, workshops, and other initiatives that promote a culture of sustainability.

In summary, embedding sustainability as a core value requires commitment, collaboration, and a long-term perspective, but the benefits to the environment, community, and education are significant.



## NEXT STEPS

The next steps for ensuring the sustainability of the Robina Campus include ongoing monitoring and reporting of sustainability performance, implementing new initiatives to improve sustainability outcomes, and continuing to build partnerships with like-minded organisations to drive sustainability efforts forward. This includes expanding the use of reducing waste, promoting sustainable transport options, and encouraging sustainable practices throughout the campus and community.

The future goals and ambitions of the Robina Campus are to continue to be a leader in sustainable development, creating a culture of sustainability that extends beyond the campus and into the wider community. This includes empowering students to become active global citizens who advocate for protecting and caring for the environment.

Overall, the Robina Campus aims to be a model for other institutions, showing how a commitment to sustainability can drive positive outcomes for staff, students, the environment, the community, and the economy.







## BRONZE AWARD (TIE)

**Project Name:** Thompson Rivers University and Advancing the SDGs

**Name of Institution:** Thompson Rivers University

**Category:** WFCP Awards of Excellence - Sustainable Development Goals Award

**Country:** Kamloops, British Columbia, Canada

## INTRODUCTION

At TRU, student success is our priority. We empower our students to reach their goals with flexible learning options, individualized services, hands-on learning opportunities, and a diverse, inclusive and sustainability-focused environment. TRU takes pride in providing an excellent education to every student who comes to us. We serve more than 25,000 students on our campuses and via distance education through Open Learning. From traditional academics to trades, from certificates to graduate degrees, TRU offers over 140 on-campus programs and 60-plus Open Learning programs. Research, creation, and innovation thrive in our open, flexible learning environment. And so do our students.

## AWARD-WINNING INSTITUTION

TRU won Bronze in the 2023 WFCP Awards of Excellence in the category: Sustainable Development Goals Award

TRU takes sustainability very seriously. Even before the UN's Sustainable Development Goals (SDG) were launched in 2015, TRU was active in advancing sustainability goals. For instance, in TRU's 2007–2012 Mission Statement it says: "TRU is a comprehensive, learner-centered, environmentally responsible institution that serves its regional, national, and international learners and their communities through high quality and flexible education, training, research and scholarship. Language about the importance of sustainability to the institution remains embedded in its current mission. 'Sustainability' is recognized as one of the institution's four core values.

This top-down focus on sustainability is mirrored by active students, faculty, staff – and even community members - from a bottom-up perspective. There are countless sustainability-focused programs, events, and initiatives that campus community members are engaged in yearly. From ambassador and volunteer programs to committees and clubs, special events, research, and community partnerships. Evidence of the importance of sustainability is easy to see at TRU.

The Sustainability Office started in 2009 with the hiring

of a Director and an Energy Manager. The office has been supported from the highest levels of TRU from day one and this has made a huge difference to take large proactive steps. The initial focus of the office was on energy projects (working towards making the campus as energy efficient as possible), along with general programming to get the community thinking more about and acting on sustainability campus-wide.

TRU has a wide variety of academic and technical course offerings, from certificates to Masters, and welcomes students from over 100 nations. TRU is also dedicated to Indigenous student success, to fostering meaningful relationships with Indigenous communities and to promoting Indigenous knowledge and scholarship. Through collaboration, innovation, respect and humility, the university fosters a welcoming environment that is grounded in the principles of reconciliation and is able to address the calls to action placed on everyone in this country.

TRU was an early adopter of the AASHE STARS program and did its first report in 2011. STARS focuses on many of the same elements as the SDGs. Subsequent reports followed in 2015, 2018 and 2022, when TRU achieved its second Platinum rating (along with 2018) and became the first institution in Canada to become 'double-Platinum'. It was also only one of six institutions worldwide - of the more than 900 that participate in STARS - to get platinum twice.

## RESULTS AND ACCOMPLISHMENTS

TRU's broad objective regarding sustainability is generally to advance sustainability principles constantly throughout the entire institution. Pursuing the 17 SDGs and the 72 sections of the STARS report means that TRU is always looking for ways to improve how it performs in all goals and sections. Until we achieve 100% across-the-board in all sustainability areas, our work will not be done. We realize that this will likely never happen since sustainability is constantly evolving, however if we can continue to focus on continuous improvement then we feel that we are heading in the right direction. The fact that we have achieved the Platinum rating in the STARS reporting platform twice means that we believe we are heading in the



right direction. TRU students, staff and faculty members are constantly referencing the fact that TRU works hard at being a sustainable institution, which most often means these community members want to get involved and try to do their part to improve the sustainability performance of the institution. Specifically, on the education/curriculum front, TRU is constantly adjusting its course offerings and new courses to reflect the evolving topic area of sustainability. Even in our Trades Department, courses and extracurricular activities are, more and more, reflecting sustainability elements. Examples of this are in our Solar Table Design Competition and our EV Conversion Project. Both projects have Trades instructors and students actively involved, as well as other members of the TRU community.

## INTERNATIONAL VALUE

Promoting the UN SDGs benefits all nations. The actions of underdeveloped nations and those of developed nations work off each other; no one acts in isolation of another nation. 'We all connected'. TRU's sustainability work benefits higher applied education at the international level in the following ways.

Over 1/3 of TRU's student population is comprised of international students coming from over 100 nations. During orientation and other instances during the year, these students, along with domestic students, are introduced to a variety of sustainability programs and initiatives. In one way or another, these programs and initiatives reinforce many of the SDGs. All students regularly have opportunities to get involved with sustainability initiatives on campus, and engagement with these initiatives is encouraged. Most of these international

students will go back to their home countries and take the learning that they gained both inside classrooms and around the campus with them.

## WORDS OF WISDOM

At an institutional level, I would say my two bits of advice would be to make sure that the institution has wording about the vital importance of sustainability written into its most fundamental guiding principles. By doing so, the trickle-down effect throughout all levels of the institution will be felt and sustainability principles will permeate throughout the institution. This involves making sure sustainability is well represented in key policies, and that the key governing bodies of the institution have it written in their core documents. Once this is done, my other advice is to spend the time and resources necessary to create a strong planning document that can be used regularly to guide the activities to advance sustainability initiatives throughout the institution. And stakeholders of the institution should have the time and opportunity to offer input to meaningfully inform the plan.

## NEXT STEPS

There are a few key next steps for TRU: we will be submitting a report in 2024 to the Times Higher Education Impact Rankings, which gauges how an institution does in regard to the 17 UN Sustainable Development Goals. Another key next step is to plan for our next five-year Strategic Sustainability Campus Plan (2026 to 2030). And lastly, we will submit another STARS report in 2025, which we do so every three years. All these activities - and many others - help to keep us on track to meet our sustainability goals and keep advancing sustainability throughout the institution.





## BRONZE AWARD (TIE)

**Project Name:** An inclusive charge towards 'Net Zero'

**Name of Institution:** Weston College of Further and Higher Education

**Category:** Sustainable Development Goals Award

**Country:** UK

## INTRODUCTION

Weston College, with 30,000 enrolments annually is a top performing UK College, with results consistently above the national average. It has retained Ofsted 'Outstanding' since 2013, offering A Levels/T Levels, vocational/technical qualifications, traineeships/pre-employment programmes, higher/advanced apprenticeships, foundation/SEND programmes and degrees - having its own TEF GOLD University Centre status (35% 1st class honours) as well as prison education contracts. It is also the lead for the West of England Institute of Technology, an impressive collaboration of 4 Further Education Colleges, 1 University and 13 'Anchor Employers' – all working to bridge the higher technical skills gaps for the region.

## AWARD-WINNING PROJECT

Since finalising its carbon reporting baseline (and as part of its Association of College's (AoC) FE Climate Change Roadmap work), the College has spent the last 2 years, triangulating its inclusive ethos as a national leader of inclusive practice, with its green aspiration as early adopter of low carbon skills delivery, into a clear and concise Sustainability and Social Action (SSA) Framework, with 3 distinct strands for clarity of approach:

- 1) Strand 1 College - transitioning to Net Zero, through strong green leadership, governance, and investment to deliver a 'whole college; whole system; whole community' approach for long lasting cultural change.
- 2) Strand 2 Careers - playing an anchor role, developing green skills to accelerate regional, national, and international sustainable economic growth - whilst also recognising the levelling up opportunities that the 'green revolution' brings.
- 3) Strand 3 Community – using student co-designed 'WeAreWeston' placemaking social action projects in partnership with local government, businesses, the community and the third sector to collaboratively build sustainable/fairer/greener neighbourhoods.

### At the core, sits an inclusive ambition:

- To create a green, lean, socially responsible culture for students and staff to work together to build a 'Net Zero College of the Future', championing green jobs, growth, and careers - using its dynamic 15 Careers Excellence Hubs, its Institute of Technology and its University Centre to collaboratively work with employers across 45 TVET sectors to progress green skills.
- To build impressive student sustainability immersion, linking student led social action projects to build a more sustainable, dynamic community.
- To create a blueprint for excellence for other colleges/schools to use - as 1 of 3 Colleges selected for the prestigious 2021 AoC's 'Beyond the Roadmap' pathfinder project to share sector best practice.
- To unite all learner groups through inclusive sustainability practice - recognising that the talent required for 'Net Zero' requires differentiated embedded SDG education at all levels (L1–L6), using everyday language with the College's award-winning specialist inclusive practitioners creating green entrepreneurial levelling up work experience, as a national SEND Centre for Excellence.



## RESULTS AND ACCOMPLISHMENTS

The work reflects its overarching objective to create a green, lean, socially responsible culture for students and staff to work together to build a 'Net Zero College of the Future' which champions green careers, whilst at the same time uses social action and trials new approaches – recognizing that the green revolution is the perfect time to level up.

This has been achieved through a 'Hub and Spoke' SDG management model which links in the College's inclusive practitioners - who ensure that the sustainability language (and the approach used) creates a universal understanding. Led by the top - the strategy is more about 'the doing', using a student led approach for high engagement which has included:

- New 'Summit Style' learning pedagogy to 'stretch every sinew buzz every neuron' – e.g., three hands on Advanced Engineering/Construction summit style sustainability learner conferences COP 26 style, with 752 learners wowing employer judges e.g. Rolls Royce with real-life climate disaster solutions.
- Impressive Big Green Week immersion events (197,596 social media impressions) with 'green my campus' events with the College's collaborative student/staff/community biodiversity projects e.g., planting 326 trees for the Queen's Jubilee receiving national recognition.
- New inclusive approaches trailed – E.g., a dedicated SEND learner 'Environmental Awareness' conference, with 5 green in house entrepreneurial SEND micro learning companies established (62 SEND learners engaged).
- Hosting the region's 1st FE Sustainability and Social Action Business Breakfast attracting 161 organisations, with a 'sustainability community of practice' established with 'WeAreWeston' student led social action projects now embedded across the curriculum.
- Leading on national green careers best practice - creating 'Net Zero' careers roadmaps/hosting high profile careers events - with an impressive green skill offer created - 90% funded for SMEs for Hydrogen Awareness/Electric Vehicles etc (69 SME's enrolled).

## INTERNATIONAL VALUE

The work has wider international application - with the following key takeaways.

To build a long-term sustainable ethos, the SDG 'Hub and Spokes' team are embedding the work into the annual College

Self-Assessment, for continuous improvement - creating a bespoke sustainability impact tool to measure the greening of its curriculum and the integration of social action projects to bring SDG education to life.

To sustain the roll out of student co-designed social action projects - the change making banner of 'WeAreWeston' was created, together with a streamlined cascade of key messages for students, staff and stakeholders e.g., iconic #LetsGoNetZero collaborative marketing campaigns, across the College's 15 Career Excellence Hubs - recognising that motivated empowered tribes create powerful transformative teams.

The College's inclusive approach as a national SEND Centre for Excellence, is amplifying the message that green = levelling up, supporting neurodivergent learners with sustainable/entrepreneurial work experience e.g., dedicated SEND green micro learning companies, the first of which made £1000 profit in its first month, with waste reduced and profits re-invested to further expand the micro green learning companies.

## WORDS OF WISDOM

Partnership is key. As a coastal college, a very real threat exists in relation to coastal flooding. The College showed real green leadership hosting its Sustainability and Social Action Business Breakfast (May) as a call to action for businesses/the community to come together to tackle climate change. This was a real success and Colleges are perfectly placed to bring the community together, so even if your Net Zero strategy is not fully embedded, businesses and key stakeholders are all in the same boat – so take the lead and invite people in to share their experience. For example, our first event was attended by 161 organisations, and as a result - a dynamic employer/student sustainability community of practice is now established - working together on social action projects under the 'WeAreWeston' banner.

## NEXT STEPS

Through its bid team, the College is currently exploring green capital funding, to create a College of the Future Net Zero estates strategy, linked to regional spatial policy - with outdoor wellness spaces designed by in house mental health practitioners for wider student/staff well-being and increased campus biodiversity.

Investment in green staff CPD is future proofing capability e.g., teaching staff completing CPD in Net Zero e.g., renewables/retrofitting/hydrogen/electric vehicles with a Carbon Literacy



champion for each of the College's 15 Career Excellence Hub being created. An additional in-house Level 2 digital sustainability qualification for staff/students/employers is also being developed as a Microsoft Showcase College.

The College is also expanding its alternative learning pathway linked to green work experience, working with philanthropic partners such Butcombe Farm to engage those hardest to reach using nature to overcome barriers to learning - whilst working in a real life sustainable organic chilli farm production business, for added value 'green employability.'



# TEACHER PROFESSIONAL DEVELOPMENT AWARD



## GOLD AWARD

**Project Name:** The Chisholm Professional Educator College

**Name of Institution:** Chisholm Institute

**Category:** Teacher Professional Development

**Country:** Australia

## INTRODUCTION

At Chisholm, we're leading the way for what a modern technical and further education (TAFE) provider can and should be. We exist to inspire success and transform lives by providing high-quality education and training through our strategic partnerships. We are guided by our values of collaboration, accountability, integrity, and respect.

We are government owned, with a range of qualifications that have been designed to be accessible, flexible, and relevant for students, employers, industry, and our community.

As one of the largest training providers in Victoria, Australia, we are committed to supporting and enhancing culturally diverse communities in our fast-growing region.

## AWARD-WINNING INSTITUTION:

At Chisholm we've established a Professional Educator College (PEC), which is a Centre of Excellence in professional development for teaching and academic staff, and offers a unique, innovative, and enduring model for consistent, high-quality teaching capability across the vocational education sector.

The PEC has a primary responsibility for ensuring that teachers and academics maintain professional currency and develop their capabilities, and we support other education and training services through the framework and Educator Passport we have developed.

The system provides guidance and support to educators on their professional development journey. It helps educators to better understand their roles, capabilities, and educational aspirations, and sharpens their ability to seek out professional development to enhance their skills to improve the student experience and learner engagement.

It provides a vehicle for enabling Chisholm's organisational strategy to enhance teacher capabilities and build educational excellence to deliver quality programs that meet educator, student, industry, and community needs. It provides educators with a one-stop-shop for planning and maintaining their VET

teaching currency and for keeping a record of evidence to meet their vocational currency requirements. The application also enables Chisholm to communicate with educators about upcoming professional development opportunities, and more recently includes new educator leadership capabilities to acknowledge and encourage career pathways.

The PEC offers professional development programs that support Chisholm's Framework and mirrors the student life cycle. The framework assists with sound educational planning and design, holistic assessment, engaging facilitation in multiple delivery modes, embedding support strategies, increasing digital capability and ongoing continuous improvement practices. It also addresses the development needs of all educators locally, nationally, and globally.

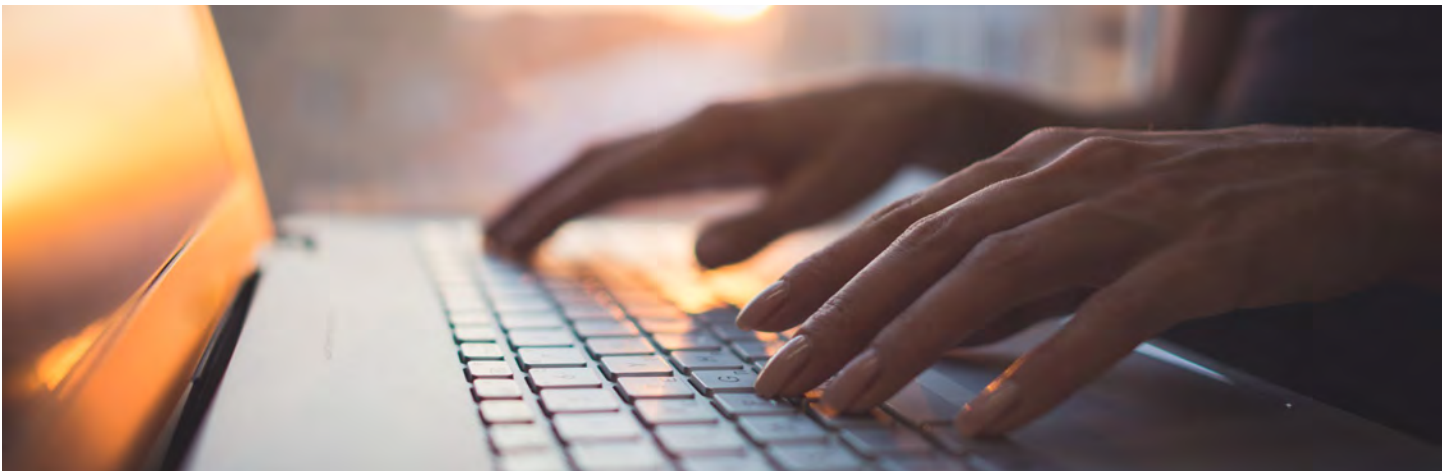
The professional development is designed as a learning journey program which is designed to be delivered over three to six months and consist of workshops, online activities, and an action-based project. These programs uplift educator's knowledge and skills but furthermore, they enable educators to put their learning into action in the classroom. Elective programs focus on meeting the needs of the just-in-time educator requirements and have shorter timeframes from start to completion.

PEC's success criteria involve a variety of measures, including vocational competency completion and satisfaction with individual modules. PEC also contributes to organisational success measures such as student and employer satisfaction with Chisholm courses, course completion rates and course financial viability.

## RESULTS AND ACCOMPLISHMENTS

The program was developed to be utilized by all teaching staff, and since introduced, thousands of educator profiles have been developed across Chisholm and with our partner Institutes. The greatest capability gaps have been identified in digital literacy, and in response, more than one thousand professional development programs were delivered with educators completing one or more workshops.





Educator motivation and engagement continues to grow and the number of Chisholm educators who had vocational currency activities recognised through the Educator Passport have increased by almost 87 per cent.

Innovative examples included attending online webinars offered by industry associations, online training, and attendance at online conferences.

Educators who complete the minimum requirements for keeping their professional currency and vocational currency updated are awarded an Educator Passport. The Educator Passport application was developed for scalability and flexibility anticipating a common need and requirement across the sector. The application has been adopted across Victoria, by multiple metro and regional TAFEs to build educator excellence, and most have embedded the Educator Passport as business as usual due to the benefits it brings to their students, educators, industries and community partnerships.

## INTERNATIONAL VALUE

The PEC's work internationally is broad and far reaching. The PEC has been able to share its learnings from the Australian vocational training experience, particularly in upskilling overseas teachers to gain Australian VET teaching qualifications so that they can teach Australian National qualifications in their home countries. These activities provide avenues to share cultural experiences across borders and to enhance capability and techniques to provide quality competency-based training. These approaches are initially quite foreign to the traditional teaching methodologies employed by our international partners and give them a completely new perspective on working collaboratively with students in an adult learning environment.

Chisholm has delivered programs to teachers in Vietnam, China, Sri Lanka, and Qatar.

All of Chisholm's third-party trainers employed by partner colleges also have access to the wide range of teacher resources provided by the PEC including more recently those related to supporting virtual delivery.

## WORDS OF WISDOM

Investment into strategies and frameworks like this program is essential to ensure educators are kept up to date with current teaching practices and currency within their vocation. Not only does it support teacher engagement, development, and satisfaction, but it also supports greater student engagement and outcomes due to better teaching practice.

To ensure the development is undertaken consistently, an easily applied mechanism to monitor, track and support teachers is critical to their success.

Many institutes are dealing with similar issues and concerns and it's important to share learnings and outcomes. A detailed communication plan is essential to ensure the program is well understood and supported. Champions of the program are also a key part of ensuring the successful implementation of the program.

## NEXT STEPS

Chisholm is committed to sharing the framework, technology, and application to support as many educators and institutions as possible. Planned enhancements and further development is also being undertaken.

Discussions are now being held with other providers to determine the scalability to support the broader education sector with a well established and successful framework. It is possible that the framework can be applied more broadly at a national and international level to support a consistent approach to educator development and success.



## SILVER AWARD

**Project Name:** Delivery of a virtual International Teacher Training Program

**Name of Institution:** NPTC Group of Colleges

**Category:** Teacher Professional Development

**Country:** Wales, UK

## INTRODUCTION

NPTC Group of Colleges is a leading further education provider in Wales, UK, established in 1931. The group comprises nine colleges, covering 30% of the country's landmass and provides high-quality education and training available to over 270,000 residents. NPTC offers a comprehensive range of courses, including A-levels, vocational courses, apprenticeships, and university-level programs. With a unique approach to education and impactful pedagogies, NPTC delivers the highest standard of teaching and learning, utilising the very best in technology and leading quality systems. Additionally, the group has a strong international presence and collaborates with businesses and industry experts to ensure that its curriculum remains relevant and up to date, catering to the needs of students and employers globally.

## AWARD-WINNING PROGRAM

The Award in Teacher Training for Professional Development developed by NPTC Group of Colleges to address the growing need for high-quality teacher training and development within vocational education. The program aimed to enhance the teaching quality of teachers at all levels of education, including secondary, tertiary education and Higher Education.

The Award in Teacher training can be delivered 100% online or on a hybrid model offered a range of professional development opportunities, including workshops, online courses, conferences, and mentoring programs, designed to equip teachers with the latest pedagogies and best practices in teaching, learning, and assessment and skills. The program also provided opportunities for teachers to network with colleagues, share their experiences, and collaborate on innovative teaching practices and be available to the hard to reach.

To address the issue of teacher quality, the program relied on the latest systems in vocational education, as well as input from practicing teachers/lectures and industry experts. The program was designed to be flexible and adaptable, allowing teachers to tailor their professional development to their individual needs and interests. It also integrated the use of

technology to enhance learning and provide greater access to professional development opportunities. The community, including industry, was a critical component of the program's success. The program involved partnerships with schools, colleges and universities and industry partners, providing teachers with opportunities to seek advice and learn from the collaborative range of stakeholders. For example, industry partners provided input on the skills and knowledge required for the future workforce, which informed the development of the program's curriculum.

Stakeholders involved in the program included teachers, school leaders, academics, and industry representatives. These stakeholders provided input on the program's design, delivery, and evaluation, ensuring that the program remained relevant and effective.

The NPTC Group of Colleges Teacher Training program has received wonderful feedback for its impact on teacher improvement and quality which will lead to student outcomes. The program has been recognised for its innovative approach to teacher training and development from those participated, which has led to improved teacher practices.

Overall, the Award in Teacher Training development program has had a significant impact on the quality of teaching overseas. By providing teachers with access to the latest best practices in teaching, learning, assessment, and skills online, has helped to improve student outcomes and prepare students for success in the future workforce. The program's integration of the community and industry has also helped to ensure that teacher training and development remain relevant and effective.

## RESULTS AND ACCOMPLISHMENTS

The main objective of the NPTC Teacher training program was to provide high-quality professional development opportunities to teachers to enhance their teaching skills and improve student outcomes. The program was successful in achieving its objectives, as evidenced by the positive feedback from the participating teachers and the improved student results.



The program benefited the community by improving the quality of education delivered by teachers, which had a positive impact on the students and their families. The improved teaching skills of the participating teachers resulted in better student outcomes and higher student achievement. The program also benefited the faculty by providing opportunities for professional growth and development.

The students benefited from the project through the improved teaching skills of their teachers, which resulted in a better learning experience and better academic outcomes. The program also helped to promote technical education and training by providing teachers with the necessary skills and knowledge to effectively teach technical subjects.

Overall, the NPTC Group Award in Teacher Training development program had a significant impact on the community, faculty, and students by improving the quality of education and enhancing the skills and knowledge of teachers. Additionally, the program also supported the promotion of professional and technical education and training, which is essential for the continued growth and development of the workforce.

## INTERNATIONAL VALUE

Once an individual has been awarded a teacher training certificate from an institution like the NPTC Group of Colleges, they gain valuable International Value: and engagement. The certificate provides recognition of the individual's expertise

and knowledge in the field of education, making them more attractive to potential employers not only within the UK but also globally. This award opens up opportunities for international teaching positions and collaborations with schools and educational institutions in other countries. Additionally, the individual's training included international best practices, enabling them to incorporate diverse teaching techniques and pedagogies from other countries into their practice, making each better suited to work with diverse student populations. Overall, the teacher training award from NPTC Group of Colleges offers a pathway for teachers to become global citizens and contribute to international education initiatives.

## WORDS OF WISDOM

One key lesson learned is the importance of staying relevant and up to date in a rapidly changing world. Being willing to adapt to new technologies and ways of teaching and learning to meet the needs of students and employers globally.

Another valuable piece of wisdom is the importance of community engagement and partnerships. NPTC Group has successfully integrated industry partners and the community into its programs, ensuring that its curriculum is relevant and tailored to the needs of its students and employers. This has led to successful outcomes and positive impacts on the community.

## NEXT STEPS

The international teacher training program can be sustained, ensuring its continued impact on the professional development of teachers and the learning outcomes of students by continuing to build strong partnerships and collaborations. We wish to expand the program's reach to more Colleges and students internationally by creating training materials that can be easily adapted to local and international contexts. This can be achieved by monitoring the program, adding improvements, and adapting when necessary to ensure all students receive the greatest benefit.

NPTC Group of Colleges emphasises the importance of a student-centered approach to education, where teaching and learning are delivered with impactful pedagogies utilising technology and leading quality systems. This approach ensures that students receive the highest standard of education and are prepared for work or success in their future endeavours.





## BRONZE AWARD

**Project Name:** The Kenya Technical Trainers College (KTTC) TVET Programme

**Name of Institution:** Kenya Technical Trainers College

**Category:** Teacher Professional Development

**Country:** Kenya

## INTRODUCTION

The Kenya Technical Trainers College (KTTC) is a Government Institution under Ministry of Education, Directorate of Technical Education Vocational and Training (TVET). KTTC was established with the primary objective of training technically skilled personnel, to not only teach in Technical Institutions, but, also for employment in all sectors of the economy. With the mushrooming of Harambee Institutes (HITS); introduction of Technical Training Institutes, opening of private and other Government Training Institutes, the demand for technical teachers increased. As a result, the Kenya Government held discussions with the Canadian International Development Agency (CIDA) between 1973 and 1978.

Efforts to formalise distance and open learning at KTTC were made in the early 1990s when evening classes were organised for employed people wanting to further their skills and formal education in technical and business areas. KTTC introduced learning programmes in the mid-1990s to create access for untrained teachers with diplomas in technical education wishing to pursue diplomas in technical teacher education. In 2002, KTTC established the Learning Resource Centre to introduce the Higher Diploma in Education Management (HDEM). Although the learners were on campus, a total of 14 printed distance learning manuals were developed for the HDEM course, and 20 computers were made available, equipped with Internet connectivity so staff could make use of online educational resources. Staff were then trained on integrating ICT in teaching, learning, and administration.

In 2005, the college introduced a mixed-mode learning programme to provide pedagogical skills to untrained technical teachers in the national polytechnics, technical training institutes, technical and vocational centres, secondary schools, and youth polytechnics. The course was flexible, and learners were engaged at campuses closest to their residences. Learning took place during evenings, weekends and holidays, and learners could attend classes on campus two weekends a month. The outbreak of the COVID-19 pandemic led to the closure of all learning institutions across the globe which raised several concerns about the health and

safety of learners, teachers/trainers, and administrators. This unplanned situation disrupted training programs, attendance of lessons, examinations and assessments of trainees which led to delayed completion rates of TVET graduates. It is anticipated that these occurrences will affect the immediate and future careers of millions of learners within the Country.

## AWARD-WINNING PROGRAM

Using blended learning approaches, KTTC has built the capacity of subject matter experts in engineering and textiles to develop competency based OER aligned to the national occupational standards approved by Kenya's Technical Vocational Education and Training Authority. KTTC is collaborating with COL and industry partners and is rolling out a program to skill, reskill and upskill master craftspeople in the informal sector for blended apprenticeship training.

In April 2022 to June 2022, KTTC also used its learning management system to train 49 TVET principals and deputy principals and 89 TVET trainers within the country under the UNESCO BEAR II project. In April 2022, KTTC opened the Professor Asha Kanwar ODeL Centre, marking a new phase in strengthening the capability of trainers to integrate online and blended learning in their practices. This will go a long way toward skilling and reskilling Kenyans for employment and entrepreneurship. With the transition of KTTC to the Kenya School of TVET, the college will now offer degree programmes and international programs as well.

## RESULTS AND ACCOMPLISHMENTS:

1. Through support from the Commonwealth of Learning (COL), National ODeL in TVET has rolled out Continuous Professional Development courses to over 6000 TVET trainers across the country.
2. A National TVET Open Education Resource has been developed and is now accessible for free to all TVET trainers and trainees across the country. (<https://cloud.colvee.org/kttc/oer/>)

3. In ensuring an inclusive TVET in Kenya, National ODeL in TVET through support from COL has built capacity of 45 trainers in Special Needs TVET institutions on the use of Assistive Technologies. This addresses the gap of accessing online education by learners with special needs. Moving forward, the National ODeL center plans to cascade the training to Special Needs Education primary and secondary schools in Kenya.

4. The KTTC academic board has embedded a Flexible and Blended (FaB) learning course in the teacher education curriculum for TVET trainers. This builds a solid foundation for teacher trainees in delivering training using different FaB approaches.

5. A state-of-the-art studio has been constructed for multimedia content production. This studio will serve as a hub for TVET content digitalization.

6. Eight (8) virtual training booths have been constructed to cater for trainers who are meeting their trainees online. The rooms hosting the booths have working spaces where the trainers' can meet and develop their online content.

7. Through support from COL, KTTC has configured a raspberry pi to give ready internet access that would mitigate internet access issues to access to the informal sector upskilling course participants.





**TOURISM AND  
HOSPITALITY**





## GOLD AWARD

**Project Name:** Ningbo Polytechnic - Tourism Management Program

**Name of Institution:** Ningbo Polytechnic

**Category:** Tourism and Hospitality

**Country:** China

## INTRODUCTION

Ningbo Polytechnic (NBPT) is one of China's first 28 Exemplary Vocational Colleges and a "Modern Apprenticeship" pilot college. NBPT was recognized by the Construction Plan of High-level Vocational Colleges and Programs with Chinese Characteristics out of over 1,400 candidate colleges in 2019 by MoE and MoF. NBPT's fourfold mission is to produce skilled workers, engage in applied research, support the local community, and contribute to cultural heritage. As the Executive Vice President & Secretariat Unit of the National Joint Conference of Vocational & Technical College and University Presidents, NBPT is always pioneering internationalization, industry-academia collaboration and TVET excellence.

## AWARD-WINNING INSTITUTION

NBPT fosters skills highly relevant to the local economy. With 33 programs spanning 7 sectors (including Tourism Management, Intelligent Manufacturing, Green Petrochemicals, AI, and Supply Chain Management etc.), NBPT hosts 12,000 full-time students, and offers an additional 24,000 part-time learning opportunities. NBPT has developed a unique, globally oriented tourism professionals training mode rooted in strong partnership with international partners, industries, government and the local community. In response to the

challenges of the pandemic, NBPT is actively adopting different ways to ensure the sustainability and effectiveness of tourism professionals training while maintaining international standards of quality.

I. Forming international partnerships to improve tourism professionals training quality. NBPT cooperates with the Algonquin College of Applied Arts & Technology to jointly operate a higher education joint program in Tourism Management, greatly boosting the international competitiveness of tourism professionals. The two institutions jointly designed the curriculum, share teaching resources and jointly deliver the learning content & assessment. During the pandemic, the two institutions worked together to overcome challenges by adopting digital technologies.

II. Developing a modern apprenticeship education model with a distinctive and effective industry-academia partnership. In a win-win partnership with the tourism industry, NBPT works with 30 leading enterprises to help them tackle pain points while improving its own ability to engage meaningfully with the private sector. NBPT brings corporate trainers into its campus through mixed-ownership training bases. Enterprises are involved in the training process from start to end. Corporate instructors are invited to deliver lectures and training sessions, and mentor students participating





in skills competitions. The course content is aligned with vocational standards, and the teaching process is aligned with real-life business operations to enhance the relevance of talent training.

III. Creating an international sharing platform for “custom-designed” training programs. NBPT has been exploring new methods to cultivate “localized” talents in China and abroad. It has also been developing professional standards and curriculum systems that are in line with international vocational education standards. Over three consecutive years, NBPT has conducted 60 remote training programs for local communities in Malaysia and Indonesia, through the Sino-Malaysian and Sino-Indonesian TVET and Culture Centers. More than 200 teachers and students were learning and interacting in the online classes. NBPT has also been participating in the development of the NTA-4 Occupational Standards, TVET educational standards and delivery standards for Tourism Management in Tanzania.

## WORDS OF WISDOM

I. Innovations in “college-enterprise integration” training base operation mechanism can help tackle challenges of skills development. Schools should consider collaborating with enterprises to jointly establish and operate training bases and develop a project-based curriculum with vocational activities. Implement practical teaching models combining basic skills, job skills, and employment skills, fostering co-education and joint academic assessment.

II. Innovations in the modern apprenticeship education model, especially the “Five Twos” model, can help tackle the challenges of employment. Schools should seek to enhance its ability to serve enterprises and address their pain points by

working with them meaningfully. Let corporate trainers deliver on-campus and off-campus lectures and mentor students taking part in skills competitions. Aim for high employment rates in modern apprenticeship programs.

III. Innovations such as the “Three Teachers-One Student” model helped tackle challenges caused by the pandemic. To cope with lockdowns, NBPT adjusted the curriculum implementation plan and sought creative ways to combine in-class, out-of-class, online and offline learning. NBPT always maintained close online communication with its Chinese and international partners, while encouraging stronger collaboration between its faculty, business mentors, and international teachers to address the students’ needs.

## NEXT STEPS

Building on its past experiences and achievements, NBPT will continue to collaborate closely with Chinese and international partners to strive for TVET excellence in cultivating tourism professionals. In terms of advancing innovation and institutional reform, NBPT will update its “modern apprenticeship” model by deepening cooperation with industry and developing learning content directly relevant to real-world corporate projects, workflows and assessment criteria. NBPT will propose quality standards of tourism professional development with Chinese characteristics, with the goal of gaining global recognition for such standards. By collaborating with multiple stakeholders on global projects, NBPT aims to share experiences & knowledge with other TVET participants, ultimately contributing to the development of high-quality, internationally recognized tourism professionals with diverse, relevant skillsets.





## SILVER AWARD

**Project Name:** Language + Skills" Cross-border Tourism Professional Cooperation Model

**Name of Institution:** Wuxi Institute of Technology

**Category:** Tourism and Hospitality

**Country:** China

## INTRODUCTION

Wuxi Institute of Technology (WXIT), founded in 1959, is an independent and full-time public higher vocational college. As one of the "High-level Vocational Colleges in Jiangsu Province" and the first batch of "National Excellent Higher Vocational Colleges" 2012, WXIT was approved to offer four-year bachelor educational programs to train high-quality professional and technical talents. In 2018, WXIT was awarded as the constructive institution of "Excellent Higher Vocational Colleges in Jiangsu Province", and in 2019, WXIT was selected as one of the National "Double High" Schools A-class construction institutions. WXIT ranked 2nd in the "2023 Ranking of Chinese Vocational College Competitiveness".

## AWARD-WINNING INSTITUTION

WXIT has established friendly cooperation with more than 100 universities across the world. It has carried out 8 cooperative programs with the United States, Denmark, Australia, Japan, Ireland and other countries. WXIT has successfully recruited more than 2000 international students from more than 60 countries and regions to study, 80% of whom are from countries along the ASEAN region, leading to vocational education cooperation with a significant contribution to regional educational, cultural, and economic exchanges.

The Tourism and Hotel Management Department of Wuxi Institute of Technology has admitted 107 international students, including 67 students for diploma education and 40 students for short-term exchange training, since it started international student education in 2018 in cooperation with universities in Indonesia, Malaysia, Thailand, and South Africa. The Tourism and Hotel Management Department strives to cultivate international students with "Chinese language proficiency + post ability + professionalism", to create "internationalization, skillfulness and professionalism" as its professional characteristics, and to cultivate highly qualified and skilled international talents with workplace Chinese proficiency and cross-cultural communication ability, as well as a certain degree of etiquette and humanistic qualities. It focuses on the construction of professional courses with

emphasis on seven English/bilingual core courses, including Tourism psychology, Tourism Marketing, and four bilingual skills training courses, including Grape Varieties and Wine Tasting, Tea Ceremony, Coffee Making and Tasting, Banquet Design and Catering Service.

WXIT has established on-campus training rooms such as 3D tourism scene training, Chinese and Western restaurants, guest rooms, lobby, wine tasting, coffee making, foreign language training, multi-modal business scene training, and more than 50 off-campus practice bases with well-known tourism enterprises, hotel groups and cross-border e-commerce enterprises, such as Marriott Hotels Group, Germany's Bertelsmann Group and Wuxi Lingshan Cultural Tourism Group. These on-campus practice sites effectively ensure the combination of students' theory and practice teaching. The off-campus internship opportunities help students better adapt to the international professional environment and become competent for the job requirements of tourism and hotel enterprises after graduation and achieve outstanding performance.



WXIT's China-Indonesia Tourism and Hotel Management Talent Cultivation Program was selected as one of the first 20 China-ASEAN Higher Vocational Colleges and Universities' Characteristic Cooperation



## RESULTS AND ACCOMPLISHMENTS

An innovative online platform has been built to cope with the need for online teaching amid the Covid-19 pandemic. The fact that all online courses come with a syllabus, a teaching plan, a lesson plan, a PPT, and teaching videos with English subtitles for key knowledge points helps international students overcome language barriers and engage in independent online learning. Currently, the website views of all courses have exceeded 2000 people.

WXIT also focuses on the talent cultivation model that combines theory and practice, leading students to visit convention centers, former residences of Chinese celebrities, popular local tourist sites and other special practical courses to enable students to gain an in-through understanding of Chinese traditional culture and humanity. In the meantime, international students are encouraged to complete a three-month internship in hotels and travel agencies, including five-star hotels like Disneyland, Marriott Hotels, and Sheraton, to help them better understand the growth of hotel marketing and tourism industries. Students and partner institutions highly praise the education program.

## INTERNATIONAL VALUE

WXIT and Indonesia Tourism and Hotel Management University Alliance (AITTEL) established the China Indonesia Tourism and Hotel Management Research Center to build a platform for deepening the internationalization of teaching and research. To expand students' international vision, who can not go abroad to participate in the exchange training and experience the multiculturalism of cooperative universities and improve their humanistic quality and international level through online communication, WXIT worked with overseas universities to conduct online training courses for students with Toledo University in the United States, which proposes leadership training, teacher training, student exchange and other projects.

## NEXT STEPS

Vocational education cooperation in the direction of tourism and hospitality needs to expand cross-border exchanges and cooperation. Firstly, lecturers with rich experience in bilingual teaching are needed to enhance cross-cultural awareness and, at the same time, need to have the ability to produce digital resources to cope with more and more online and offline blended teaching and learning situations; secondly, implementation of the education link needs to provide as much as possible to the students with internship opportunities, in

particular, to enter the multinational corporations, and at the same time, relying facilities on campuses, can also be used to build up the working scenario by using means of AI, Digital Twins and other advanced technologies, which will help the students to be able to better integrate into the future positions.



International students majoring in Tourism Management in the "Chinese + Vocational Skills" training program for the Department of Higher Education and Training, South Africa, received internship certificates from Marriot Hotel.



On-campus hotel raining classroom provides real-experience internship scenarios with multi-culture



## BRONZE AWARD

**Project Name:** Align with International Standards, Serve the Industry Development to Build a Model of Talent Training for International Tourism and Hotel Management

**Name of Institution:** Rizhao Polytechnic

**Category:** Tourism and Hospitality

**Country:** China

## INTRODUCTION

Rizhao Polytechnic locates in a beautiful seaside city-Rizhao, Shandong Province of R.P.China. It is the first vocational college in Shandong Province, approved by the Ministry of Education, China in 1998. It has two campuses with a total area of 1,414,335 sqm. Currently, it has more than 1,000 teaching staff and more than 17,000 students. It has 14 departments and 51 majors covering 13 specialties. Adhering to the international development strategy. Rizhao Polytechnic has carried out cooperation and exchanges with 119 governmental organizations, universities and colleges, educational institutions, and enterprises from 27 countries and regions.

## AWARD-WINNING PROJECT/PROGRAM/INSTITUTION

Since the major of Tourism Management was set up in 2001 and the major of Hospitality Management in 2006, Rizhao Polytechnic has been keeping up with the development needs of the Times, the industry, closely connecting with the changes of job ability and the international standards of the industry, and actively cooperating with domestic and foreign first-class enterprises. Cooperated with more than 30 well-known enterprises such as Shanghai International Theme Park Co., LTD, Universal Beijing Resort, Marriott International, Shandong Blue Horizon Group, Beijing L-Service Co., LTD., and set up nearly 100 off-campus practice bases, which gives full play to the education function of both colleges and enterprises. It has trained nearly 4,000 tourism and hotel management professionals in line with social development and industrial upgrading.

RZPT has excellent and experienced teaching staff with outstanding social service ability, such as 3 examiners of national tourist guide certificate, 2 "Ten thousand Tourism Talent Program" of National Tourism Administration, 1 Young and Middle-aged Tourism Expert of Shandong Province, 1 Hotel Star-level Evaluator of Shandong Province, and 1 Tourist Guide Evaluator of Shandong Province.

The Tourism Management major has been rated as the major

supported by central finance, the provincial brand major, the characteristic major of provincial quality colleges, and the first batch of undergraduate majors to be applied for. The hospitality management major is the pilot major of modern apprenticeship in Shandong Province.

RZPT has been elected as the director of the Education Branch of China Tourism Association, the deputy director of the Cruise Talent Training Alliance of China Institutions of Higher Education, the deputy director of Shandong Tourism Vocational Education Group, the member of Shandong Excellent Tourism Promotion Association, the deputy director of Rizhao Excellent Tourism Promotion Association and the provincial tourism talent training base.

## RESULTS AND ACCOMPLISHMENTS

1. Improve international curriculum system, aligning with international standards.

1.1 Two training plans, 12 curriculum and vocational qualification certification system have been introduced.

1.2 Two courses and 9 college-enterprise training programs were jointly developed with enterprises.

1.3 The Sino-foreign cooperative education project of Tourism Management and the Bachelor's Degree Program with foreign institutions were developed.

2. Develop internationalized teaching team.

2.1 Three well-known tourism experts from Taiwan were hired.

2.2 Professional teachers were appointed to participate in different training programs.

2.3 Through these training programs, the teachers have overseas study experience, international vision and are familiar with international professional standards.

3. Build professional talent training platforms by deepening collaboration with industry.

3.1 Together with Blue Horizon Group, “RZPT-BHG Research Institute of Hospitality Management” was established to carry out professional research and order training program.

3.2. With relevant institutions in Shandong province, “RZPT-BHG” education alliance was established to build the further education bridge for students from secondary vocational school to higher vocational college to university.

3.3. And Hotel Industry School was established with local enterprises of Rizhao city, to train high-level professionals in tourism and hospitality management.

4. Support local tourism by keeping up with the development of the tourism industry.

4.1. Cooperated with Rizhao Excellent Tourism Promotion Association, 12 industry standards for high quality tourism were made. And one of the proposals was awarded the first prize.

4.2. “Construction Standard of High-quality Tourism Demonstration Base” was approved by and became the provincial standard of Shandong.

4.3. The All-region Tourism Demonstration Zone of Shandong was successfully applied.

## INTERNATIONAL VALUE

### Define the goal for talent training:

- Build majors and curriculum system with international standard by introducing high-quality education resources from abroad and service standards of international first-class enterprise and adjusting to the characteristics of Chinese students and industry needs.
- Build first-class information teaching conditions and on-and off-campus training bases with international and domestic well-known tourism enterprises.
- Set the goal for training talent, who are not only meet the demand of local industry and also could participate in international management and service

### Deepen international college-enterprise cooperation and cultural exchanges:

- Carry out overseas internships and order training programs with international companies and enterprises, such as Royal Caribbean Cruises LTD., Shanghai Disney, Universal Beijing Resort, and Marriott International.
- Build the bridge of culture exchange on tourism and hospitality with foreign students.

## WORDS OF WISDOM

Cooperate with well-known enterprises at home and abroad which have international industry standards, advanced enterprise culture and standardized operation and management. Students prefer to practice and work in this enterprise.

- Balance the interests of college, enterprises and students, accommodate the demands of all three parties, trust, understand and support each other in the process of cooperation.
- Focus on in-depth and substantive cooperation between college and enterprises in courses, textbooks, training bases and double-qualified teachers.

## NEXT STEPS

1. Catering to industry upgrading and digital transformation of tourism and hospitality, we plan to incorporate intelligent and technological expertise into curriculum to improve quality and competence of professionals in Tourism and Hospitality;

2. Interdisciplinary curriculum modules are set up to cultivate talent with cross-professional knowledge and intelligent technology. And develop the curriculum for senior management based on the one for the juniors in tourism and hospitality industry, so that students could have a diversified development platform.

3. Cooperate with more international well-known enterprises and jointly build talent training bases to serve the development of tourism industry





# LEADERSHIP IN DIVERSITY AND INCLUSION AWARD



## GOLD AWARD

**Name of recipient:** Sammy Kipkemoi Chemoiwa

**Category:** Leadership in Diversity and Inclusion

**Country:** Kenya



## INTRODUCTION

Mr. Sammy Chemoiwa is an astute Agricultural Engineer and manager whose servant leadership has seen him appointed to various leadership positions in various TVET institutions. His trail of achievements is evidenced by his selfless contributions that showcase his passion for the TVET cause. He is a dedicated and altruistic experienced senior manager whose experience spans over 28 years in the TVET sector. As an agile and dynamic career educator, mentor and coach, his diligence, integrity, and passion for youth in education pursuit is admirable. He is recognized as an ingenious advocate of inclusivity and diversity in all spheres of management.

## AWARD-WINNING INDIVIDUAL

Mr. Chemoiwa is the Principal of Rift Valley Institute of Science and Technology, a government TVET institution under the Ministry of Education – State Department for Vocational and Technical Training. Among the largest of its kind, it is situated in Nakuru, Kenya and has a student population of over 10,000 and a staff comprising of a faculty staff and administrative staff of over 400. He is also the sitting Chair of Kenya Association of Technical Training Institutes (KATTI) in the South Rift Region of Kenya. Previously, he held the position of Chair, Education and Training in the same region, Chair, Agricultural Society of Kenya representing the institute and Head of Agricultural and Mechanical Engineering Department.

His experience in leadership in TVET spans over 28 years where he has held varied top management positions and has risen through the ranks to the highest position of Principal. He has headed several TVET institutions which he has successfully managed and steered to excellence in management and performance at all levels. Notably, he mentored the construction and management of four TVET institutions successfully which are now running as independent institutions. Additionally, he initiated and operationalized highly efficient safety specific innovations in response to the pandemic for which he received accolades and recommendation as a benchmark by the Ministry of Education in Kenya.

Together with a team of experts, Mr. Chemoiwa helped develop a learning management system for the KATTI South Rift region to enable the integration and adoption of e-learning at the height of the COVID-19 pandemic. Due to his vast experience and passion for TVET, in November 2022, he made a detailed submission, to the presidential task force mandated to collect views from experts in the TVET sector with a view to improving the quality of training. His commitment to TVET training and community empowerment has also seen him advocate for the uptake of TVET courses among marginalized communities by organizing annual career education fairs. This has seen more trainees enrol for TVET courses, thus a potential boost to their socio-economic development.

As a renowned philanthropist and advocate of social justice his passion for empowerment through edification has seen him personally mentor and coach many youths from under resourced backgrounds, disengaged youths, and persons with disability from his own resources and seen them through basic education, colleges, and university.

## ACCOMPLISHMENTS

The nominees key accomplishments include: drafting and adoption of the first ever academic policy later replicated in the over 30 TVET institutions then; review of the curriculum design for Diploma in Agriculture which was adopted for national implementation and initiation of an in-service program in Agriculture; the founding of the Farm Machinery Field Day to popularize agriculture as a career of choice; initiation of curriculum development for beadwork craft, a traditional skill; Empowerment of women and girls to participate in male dominated courses; Spurring innovations among trainees through Startup Africa. Other achievements include: The implementation of the Young Africa Works in Kenya Program and the USAID Empowered Youth Project; a project on a solar/geothermal powered vegetable dryer utilizing green energy in partnership with the Maastricht School of Management in the Netherlands; Centre of Expertise in the Dairy Value Chain in collaboration with

the Dairy Training Centre in the Netherlands and advocating for Climate Change in partnership with the Climate Smart Agriculture Youth Network.

He is an accomplished farmer who runs a successful dairy farm, EDfarm, which is also a breeding centre for Holstein and Ayrshire pedigree dairy cows. The farm is renowned as a Centre of Excellence for the production of bulls with superior genetics and is listed at the Kenya Animal Genetic Resources Centre (KAGRC). In addition, he has empowered small scale farmers in his locality to register a savings and credit society (Soldairy) to enable them leverage on the existing competitive advantage and offers internships for TVET trainees.

## INTERNATIONAL VALUE/ENGAGEMENT

This award goes to show that there is shared value in consistency and integrity in leadership. As a global award winner, I focus to use this award to promote diversity and inclusion by conducting sensitisation trainings to share my expertise and mentor leaders, institutional administrators and trainers both locally and abroad. In addition, I will disseminate the concepts I have learnt and practiced over the years through publications. I will also particularly champion for the girl child in the marginalised communities in my home County, Baringo and the neighbouring counties with a view to enhancing their participation in TVET courses for socio-economic empowerment.

I will also explore opportunities both locally and internationally to tap expertise and enhance collaborations with international partners. These collaborative efforts are not only important but also provide platforms for sharing of best practices and benchmarking to meet global standards.

## WORDS OF WISDOM

The social value that comes with strengthening communities is invaluable. Thus, sharing knowledge, creating opportunities, leveraging on teamwork, and empowering the youth eliminates social problems such as poverty, hunger, unemployment and fosters socio-economic development. Over the course of my career, I have witnessed many skilled youths become economically stable and create opportunities for others. Thus, TVET institutions should lay emphasis on strengthening the relationship between training and industry standards by engaging partners in the industry, and inspiring innovations among the youth.

In addition, my advice to governments all over the world is to embrace TVET to promote economic growth and stability. Leaders particularly in TVET, ought to prioritize diversity and inclusion by promoting equal access to training opportunities to achieve fairness and promote social justice and equity for all. My mantra is to perceive with the heart, analyse with the mind and implement with the heart in service to humanity.





## SILVER AWARD

**Name of recipient:** Dr. Engineer Tafadzwa Mudondo

**Category:** Individual - Leadership in Diversity and Inclusion

**Country:** Zimbabwe

## INTRODUCTION

Dr. (Ph.D.). FZwIE. PrEng. Tafadzwa Mudondo is the current Principal of Harare Polytechnic whose experience with TVET education spans a period of 24 years. Harare Polytechnic is the oldest, premier, and biggest polytechnic in Zimbabwe. He is a consultant, researcher, resource person on TVET policy issues and author. Dr Mudondo is an Executive Board Member-Commonwealth Association of Technical Universities and Polytechnics in Africa (CAPA), Vice Chair-Association of Technical Universities and Polytechnics in Africa (ATUPA) - Southern African Region, Chairperson of the Association of Principals of Polytechnics and Industrial and a member of the Zimbabwe Institution of Engineers (ZIE) Education and Training.

Award-Winning Individual (400 words): Describe the person that was awarded. Describe past and current roles they have held and other engagements throughout their career.

Dr. Eng.T.Mudondo is the current Principal of Harare Polytechnic and has been involved with TVET programmes for the past 24 years. Harare Polytechnic is the premier and biggest polytechnic in Zimbabwe. He has worked as a consultant, researcher, resource person on TVET policy issues, educational entrepreneur, and author. Dr Mudondo rose through the ranks from lecturer, lecturer-in-charge, head of department, head of division, acting Vice Principal, Vice Principal and Acting Principal from 2012 to 2014 and substantive principal from August 1, 2014, to date. Dr Mudondo is an Executive Board Member-Commonwealth Association of Technical Universities and Polytechnics in Africa (CAPA), the Vice Chair-Association of Technical Universities and Polytechnics in Africa (ATUPA) - Southern African Region, Chairperson of the Association of Principals of Polytechnics and Industrial and a member of the Zimbabwe Institution of Engineers (ZIE) Education and Training. In September 2022, Dr Mudondo successfully, on behalf of the government of Zimbabwe hosted the first ever Association of Technical Universities and Polytechnics in Africa (ATUPA) conference. The conference brought together academics, policy makers, industry experts, development partners such as World Bank

and ILO and students from 18 countries in Africa. Among some of his achievements, Dr Mudondo negotiated and successfully penciled a Memorandum of Agreement in July 2018 with China Zhuhai for Capacity Building with a possibility of setting up LED assembling plant at Harare polytechnic. Apart from the Zhuhai MOA, he negotiated several partnerships which culminated in the following arrangements:

- Memorandum of Agreement (MOA) Harare Polytechnic and Ningbo Polytechnic China Technical Cooperation and joint programs (2022)
- Memorandum of Understanding (MOU) Harare Polytechnic and Namibia Polytechnic joint training programs and mentorship (2020)
- Memorandum of Understanding (MOU) Harare Polytechnic and Yuankang Enterprise LTD China, limited, capacity building and Technology Transfer (2022)
- Memorandum of Understanding (MOU) Harare Polytechnic and The Lords Doing Engineering (THLDE) technology transfer and conversion of vehicles to dual system (2020).

He was appointed Higher & Tertiary Education Technical Committee Chairperson on drafting of the Technical and Vocational Education and Training (TVET), which culminated in the introduction of Modular Curriculum. He has won over 20 awards of excellence both locally and internationally. Dr Mudondo is a consultant for UNESCO Dialogue Committee Member for the Multi-country UNPRPD Project- "Ending Stigma and Discrimination, Breaking the Cycle of Poverty and Marginalization of Persons with Disabilities", Zimbabwe, Mozambique, Tanzania, and Namibia from 2021 to 2023.

## ACCOMPLISHMENTS

Dr Mudondo has revolutionised Technical and Vocational Education Training in Zimbabwe both as Harare Polytechnic principal and as a consultant. He is a consultant for UNESCO Dialogue Committee Member for the Multi-country UNPRPD Project- "Ending Stigma and Discrimination, Breaking the Cycle of Poverty and Marginalization of Persons with Disabilities", Zimbabwe, Mozambique, Tanzania, and Namibia from 2021

to 2023. In September 2022, Dr Mudondo successfully, on behalf of the government of Zimbabwe hosted the first ever Association of Technical Universities and Polytechnics in Africa (ATUPA) conference. The conference brought together academics, policy makers, industry experts, development partners such as World Bank and ILO and students from 18 countries in Africa. The main theme of the conference was: Repositioning TVET education ecosystem in light of COVID-19 through heritage-based education. In 2013 to 2016, Harare Polytechnic implemented an underground water harvesting system that saw 10 boreholes being drilled and connected seamlessly to the main water supply system. The system serves over 10000 students and over 600 staff members. The project, initiated and implemented by Dr. Engineer Tafadzwa Mudondo working with staff and students from the department of Electrical Engineering, Construction Engineering, Civil Engineering Division and Mechanical Engineering, saw the institution running on 100 percent borehole water and paying only service fees to the City of Harare. Before the installation of the system, Harare Polytechnic monthly bill for water stood at USD 70 000. Apart from locally based innovations, Dr Mudondo has led the pace in the internationalisation of Zimbabwean Polytechnic Education.

## INTERNATIONAL VALUE/ENGAGEMENT

He has taken the lead in the internationalisation of Zimbabwean Polytechnic education through operationalising a Memorandum of Agreement with Ningbo Polytechnic, China. The MOA, which was made possible through the Association of Technical Universities and Polytechnics in Africa (ATUPA) has seen the 30 students from Harare Polytechnic going to China for an 18 month exchange programme. In 2018, Dr Mudondo signed an MOU with Zhuhai Technical College,

China that will see the two institutions collaborate in training, cultural exchange, technological transfer and staff development programmes. Other partnerships include a Memorandum of Agreement (MOA) Harare Polytechnic and Ningbo Polytechnic China Technical Cooperation and joint programs (2022), Memorandum of Understanding (MOU) Harare Polytechnic and Namibia Polytechnic joint training programs and mentorship (2020) and Memorandum of Understanding (MOU) Harare Polytechnic and Yuankang Enterprise LTD China, limited, capacity building and Technology Transfer (2022).

## WORDS OF WISDOM

Dr Mudondo would like advice colleagues in TVET industry that it is fundamental to be pragmatic, focused and persevere in their endeavour to achieve sustainability in Technical and Vocational Education. More can be achieved through synergies, researching, networking and collaborations locally, regionally, and internationally. Above, let us take cognisance of the fact that Inclusive policies forms the bedrock of good corporate governance in our TVET institutions. African worldview can be shared with other professionals around the world who have an interest in understanding how developing countries, in particular Zimbabwe has embraced Heritage based TVET education philosophy programmes. The culture and architecture of TVET dates back to creation. The creator domesticated, institutionalised, and bestowed it upon the human race as a heritage. The Creator illustrated the power and philosophy of TVET when the universe was created with all the plethora of living and non-living, Genesis 1. Life is built and sustained through TVET.



## BRONZE AWARD

**Name of recipient:** Mish Eastman

**Category:** Leadership in Diversity & Inclusion

**Country:** Australia

### INTRODUCTION

Mish Eastman is a highly respected leader in vocational education in Australia. She joined RMIT University in 2019 and has had an extraordinary impact since. She is the inaugural Deputy Vice-Chancellor Vocational Education and Vice-President at RMIT. In this role, she leads the College of Vocational Education which delivers training to almost 20,000 students a year. Mish has held many senior roles in health and education over her career, starting her journey as an emergency department nurse in Melbourne.

### AWARD-WINNING INDIVIDUAL

Mish Eastman is responsible for developing and leading a renewed vision and strategic direction for vocational education as Deputy Vice-Chancellor Vocational Education at RMIT. Since joining RMIT in 2019, this has included establishing the new College of Vocational Education and the implementation of a 5-year strategic roadmap for vocational and applied learning.

She is passionate about gender diversity in all aspects of education and creating space for women in non-traditional roles, continuously providing diverse opportunities and support as part of her leadership style. She is a fierce champion for women and their place in education, the workforce, and society more broadly. A staunch advocate for women in 'non-traditional' spaces, she has provided the authorising environment which women flourish.

An experienced education and health leader, Mish has strong expertise in identifying and creating new models of education and training in collaboration with industry, enhancing tertiary pathways, and understanding how to create educational and employment success for learners. Beginning her career as a Registered Nurse before moving into educational leadership roles, has given Mish a deep knowledge and passion for vocational education.

She has previously held positions with TAFE Tasmania, Tasmanian Polytechnic and Swinburne University of Technology, providing strategic and operational leadership

of teaching and learning programs in pathways and vocational education. As a former emergency nurse, she is the first person people turn to in a crisis, because they know she will be composed and her advice will be clear-minded, precise and immediately applicable.

Mish is rarely seen a stereotypical "corporate leader". She believes in a style that is grounded in integrity and warmth. Given the influence Mish has had on vocational education in Victoria and Australia over a period of less than 10 years, some might forget that she is a single mother who provides great care and guidance to her wonderful son. Her job at Swinburne was immense; at RMIT it's even bigger. Yet she remains a focussed mother, not to mention a role model to so many people outside the professional sphere.

### ACCOMPLISHMENTS

Mish is known for being an organisational transformer. When she started at Swinburne in 2015 its vocational division was at a low ebb due to major policy shifts that shattered student numbers and it was clear that change was required. Through her collaborative and inclusive approach, by 2019, Government-funded students had climbed to 6,437 (up from 4,500 in 2014). There were 114 general staff members and 283 teaching staff members (up from 77 and 182 respectively in 2014). There were also 298 women working in the vocational education division, 70 more than just two years previously.

After joining RMIT in 2012, Mish established the College of Vocational Education, bringing together 1,000 staff and 20,000 students from across RMIT to form a single vocational community. All of this was done through COVID-19 in the world's most locked down city. Mish was deliberate in her approach to connection and building a community through this challenging time. The College saw a 7% increase in staff engagement in its first year of operation and boasts the highest percentage (more than 50%) of women in senior and executive leadership positions.



Mish has a legacy and passion for gender equality and gender-based harm prevention. Her work in family violence prevention at Swinburne was sector leading. She has continued this legacy of leadership at RMIT where she is co-Chair of the Vice Chancellor's Advisory Group on gender-based harm, contributing to a paradigm shift in the outcomes and delivery of this critical work.

## INTERNATIONAL VALUE/ENGAGEMENT

Mish presented at the 2022 WFCP Congress about her approach to inclusive leadership and developing a new organisational culture during COVID lockdowns. Mish will be again presenting at the WFCP Congress, leading a panel that will explore embedding gender equality in education contexts. Mish is at the forefront of RMIT's ambition for workforce transformation and skills training in Vietnam, ensuring a focus on equality for women.

## WORDS OF WISDOM

Leaders should embody 'walking the talk' when it comes to recognizing and celebrating all people, no matter their background, circumstances, or demographics. What you do and how you do it, matter much more than what you say you will do. Living and breathing authentic visible leadership, that embodies curiosity, connection and care creates sustainable models of inclusion.

Strength comes from the weave of the rope rather than its individual strands. Mish believes in the idea that the whole is greater than the sum of its parts. But also, that the whole is necessarily incomplete if people are excluded, and diversity is rejected.

Teams, organizations and communities are richer, stronger and more effective by maximizing diverse thought, life experiences, cultures, sexualities and genders - but it takes sustained and purposeful design, and transparent and long-term tracking of progress to achieve impact.





**LIFETIME  
ACHIEVEMENT**





## GOLD AWARD

**Name of recipient:** Dawn Ward CBE DL

**Category:** Lifetime Achievement Award

**Country:** United Kingdom

## INTRODUCTION

Dawn is the Chief Executive of Burton and South Derbyshire College, Deputy Chair of the Chartered Institution of Further Education (CIFE), Chair of World Federation of Colleges and Polytechnics (WFCP) and a Deputy Lieutenant of the West Midlands region of the UK.

She has given an outstanding contribution to the global TVET system for over 30 years. Holding various senior positions within the UK Further Education sector Dawn has a vast experience in leading highly effective technical, vocational, and technical (TVET) organisations ensuring that they deliver against current and future workforce development needs and that they drive individual, organisational and industry effectiveness.

## AWARD-WINNING INDIVIDUAL

Dawn has championed inclusivity, diversity, and equity all of her life and made this a central tenet in each organisation she has led. She has transformed her current organisation into a responsive and agile future looking TVET provider that recruits globally boasting a staffing and learner diversity profile that exceeds that of the populous that the College serves. She has won a number of accolades relating to inclusion, diversity and equity including 'Leadership In Race Equality' from the UK's Network for Black and Asian professionals and 'Principal of the Year' from the Centre for Excellence in Leadership.

Dawn is also Chair of HBSA, a Saudi Arabian registered company operating the International Female Technical College in Jeddah. Established nearly a decade ago the Jeddah Female ITC has led the way in driving positive change in job acquisition for young women in the city and now boasts the highest employment rate of all of the technical Colleges within the Colleges of Excellence programme.

## ACCOMPLISHMENTS

As well as the development of her current organisation, Dawn has had a significant profile within the United Kingdom and internationally. She has held the position of Chair of the World

Federation of Colleges and Polytechnics for several years working with TVET providers throughout the world to create consistent and positive change for the nations they serve.

Dawn has also delivered sizeable change within the UK at a national level. Her role as a panel member for the Lord Lingfield Independent Review of Professionalism within the UK's further education sector led to the creation of the Chartered Institution of Further Education of which she is now Deputy Chair. The CIFE celebrates excellence within the UK Further Education Sector and, under Dawn's leadership, has grown significantly boasting a wide range of public and private further education providers who epitomise excellence and are highly effective in what they do.

As well as holding several board level roles across the public and private sectors, Dawn has been awarded the Medal of Merit from the Royal House of Georgia, the Prince Phillip Medal Award and a Fellowship from global awarding organisation City and Guilds. Dawn was awarded an OBE in 2007 and subsequently CBE in 2015 By Her Majesty Queen Elizabeth II for services to Further Education.

## INTERNATIONAL VALUE/ENGAGEMENT

Dawn is also a huge advocate of coordinated and collaborative relationships with UK TVET providers and global partners. She has worked in partnership with the UK's Department for Business and International Trade (DBIT) to promote UK TVET throughout the world including territories in the Middle East and ASEAN member states.

Her work developing highly productive relationships with Government is also significant. She has developed highly effective Government relationship focussed on TVET sharing and bi-lateral relationships in Japan, South Korea and Saudi Arabia that have benefitted hundreds of learners and staff and which have helped shape the technical and vocational futures of so many individuals.



## WORDS OF WISDOM

Many people talk about the imperative of ensuring Equality, Diversity and Inclusion driving organisational success and, whilst this is right, I do believe that the order of these words needs some reflection.

TVET Organisations need to be inclusive if they are to attract a diverse learner and employee population. This means being culturally attuned to barriers diverse people may face and working tirelessly to remove these. People also need to see role models in TVET organisations that they recognise in themselves, particularly in leadership positions.

Inclusivity will inevitably lead to diverse learner and staff populations. If an organisation is welcoming to the whole community (in its truest sense) they will attract diverse people

with diverse backgrounds. Finally, if an organisation includes all then this diverse culture will produce equitable outcomes for all as systems, policy and procedure will be built with all communities in mind and will reflect the needs of the community.

So, when thinking of EDI, reflect upon the outcomes you are trying to achieve and if the outcome you are striving for is equality for all then it's possible that an approach that considers IDE might just be right for you!



## SILVER AWARD

**Name of recipient:** Daniel Cheruiyot Mutai

**Category:** Lifetime Achievement

**Country:** Kenya



## INTRODUCTION

Dr. Mutai is a self driven, talented accomplished scholar and published author, and a registered member of The Institution of Engineering Technologist and Technicians of Kenya (IET-K). He has served as a chairman in various Institute Academic boards and Policy Development Committees in the Ministry of Education, various Technical Institutes and National Polytechnics as well as served as the regional Chairman of Kenya Association of Technical Training Institutions (KATTI) – Rift Valley Region for four years where his strategic management skills stood out. He also holds a WFCP Global Award of Excellence in Leadership in Diversity awarded in 2022.

## AWARD-WINNING INDIVIDUAL

Dr. Mutai is a proponent of agile teamwork who inspires logical decision making, is committed to building cohesiveness and accountability through strategic leadership. His passion for youth empowerment through coaching and mentorship has seen him rise to many high-level appointments in TVET institutions in Kenya. His experience spans over 35 years, 23 of which have been in diverse top leadership positions in TVET institutions in Kenya, his last duty station being Rift Valley Institute of Science and Technology. This has enabled him to acquire the requisite skills and attitudes resulting in effective Institutional Management. His major achievements include establishment of industry collaborations, student mentorship and coaching programs, introduction of incubation centres, increased student enrolment, establishment of income generation activities, infrastructural development, utilization of green energy, valorization of research and innovation, integration of ICT in learning and introduction of work study programs.

Throughout his service he has promoted peaceful co-existence between TVET colleges and their neighborhoods; initiated activities aimed at reducing the effects of climate change; established projects and programs that promote innovation, collaboration, gender equity and inclusivity; exercised Strategic Management of COVID-19 through innovation and raised the college completion rates of trainees through social

interventions. He was also assigned to oversee resource mobilization, construction, and management of five new technical and vocational colleges which he achieved with excellence. Dr. Mutai continues to build on his experience in the public service by engaging in public service activities on various platforms. This includes Consultancy services and Capacity building for various TVET Boards of Management and Evaluation of strategic Plans.

Dr. Mutai's selfless service to humanity, evidence-based leadership in diversity and inclusion, spanning over 35yrs and commitment to excellent service delivery in TVET has seen him make positive contributions in TVET that can be replicated in technical institutions all over the world to enhance quality service delivery, furtherance of the SDG's and prioritization of innovation and technology.

Outside of his normal work schedule, he engages in environmental conservation work. This includes, tree planting, awareness on environmental degradation, best farming practices and the role of the youth in combating climate change. He also helps build the capacity of the youth in climate change by targeting youth groups both in organizations and the community. This is an agenda prioritized by the Constitution of Kenya 2010, the governments development plan, the SDGs, and Africa's Agenda 2063.

## ACCOMPLISHMENTS

During his service, Dr. Mutai adopted clean energy use by lighting all walkways and open spaces around institutional buildings using solar and use of solar energy for water distribution. He improved all the driveways by paving and improvement of drainage systems. During the COVID-19 pandemic, he adopted e-learning as a policy to utilize online teaching throughout the period and beyond. He successfully organized talent show competitions in form of cultural dance, poems, music and fashion shows. He has also successfully organized the composition and recording of institute anthems in at least two technical institutions which he headed.

Dr. Mutai's ability to go beyond the regular curriculum implementation is awe-inspiring. He strategically manages resources and the environment and collaborates with all the stakeholders, trainees, trainers, neighbouring institutions and service providers into a professional learning and support community. While at Bureti TTI, he established beef farming as an investment through a community partnership venture. In addition, while at Shamberere TTI, he cohesively repossessed 19 acres of institution land through community involvement. He is also the brains behind the technique of using the workshops and laboratories as practical training centres and at the same time manufacturing or innovation centres; for fabrication of products that address human challenges.

Throughout his leadership he championed sustainable development and displayed respect for human rights by guaranteeing a free working environment, gender equality and providing a clean and healthy working environment for high quality youth empowerment and training.

## **INTERNATIONAL VALUE/ENGAGEMENT**

This award inspires me to work with international bodies such as UNESCO and UNEP to further the interests of TVET institutions and strengthen their mandate. In addition, I intend to provide advisory services and consultancy services in strategic management to TVET institutions in my home country and abroad to share best practices for posterity.

As a multiple WFCP award winner, I intend to widen my scope in mentorship and coaching to include upcoming leaders, practising TVET managers and community leaders

to promote transferable practical skills, peace and cohesion for socio-economic growth and development. Focus is on emerging local and global issues in the field of TVET and to advocate for lasting solutions in the same. Further, I will seek to collaborate with like minded persons and stakeholders to further the acquisition of quality technical skills among the youth and tap into the endless possibilities that TVET has to offer.

## **WORDS OF WISDOM**

I am an ardent believer of collective decision making as it demonstrates inclusivity, encompasses social justice, and promotes fairness. This is made possible if an organisation and its subjects embrace a shared Vision and Mission. This is critical in the realisation of the objectives set as it ensures the successful running of an organisation. Further, through consistency in policy formulation, proper planning and implementation, institutions can leverage on their strengths to achieve maximum growth. Ultimately, I urge all in positions of leadership to invest in the pursuit of home-grown solutions to enhance community adoption and relevance.

That collaborations and partnerships with stakeholders are a key asset in training, industrial exposure, acquisition of competence and solving recurrent issues is not in question. It is indeed the very fibre that meshes quality training and industry relevance for both the local and global markets.





## BRONZE AWARD

**Name of recipient:** Anthony Philip (Phill) Murphy PSM

**Category:** Leadership in Diversity & Inclusion

**Country:** Australia



## INTRODUCTION

Phill has made a lasting contribution to the vocational education and training sector in Victoria, particularly in his roles as Executive Director, Automotive Centre of Excellence and later as Executive Director, Student Journey Transformation at Bendigo Kangan Institute.

Amongst his many achievements, he is most recognized for leading the creation and operation of the Automotive Centre of Excellence (ACE). He was instrumental in garnering support from industry and government to develop the state-of-the-art automotive facility. Under his leadership, ACE has transformed the automotive training industry and is a model for other similar centers around the world.

Phill Murphy has been in the Vocational Education and Training (VET) sector since 1985, moving from a sessional (casual) teacher to Chief Executive Officer.

## AWARD-WINNING INDIVIDUAL

Phill's career is not highlighted by a single, one-off achievement. Rather, it has been his ability to understand the needs of those around him and to pull out all stops to meet them – repeatedly. His ability to build long term relationships both internal and external across industry and education has been exemplary. His achievements arise from a passion to go above and

beyond to make a real difference to students, industry and the community through VET. Rather than list roles; some quotes from industry partners and colleagues best illustrate Phill the person.

Phill's success and experience has become the impetus for growing specialisation at Bendigo Kangan Institute. 'Leadership through specialization' is one of the key strategic priorities underpinning BKI's strategy and the organization is well advanced on two new Centers of Excellence: in Health & Community and Food & Fibre. Stan Capp, the former BKI Executive Director of Health & Community noted that:

"Phill has been a colleague and mentor to me since I was asked

to develop the Health & Community Centre of Excellence. He stressed the need for industry engagement and assisted in formulating the Terms of Reference for our Industry Advisory Board. He also emphasized the need for innovation and broad thinking about the opportunities presented in establishing a

Centre of Excellence. He always was keen to ensure that whatever I did I was responding to the needs of health and community sector employers and that courses were creatively using technology to differentiate our educational offerings from other providers."

Phill has always been a strong advocate for an industry-led approach to vocational education and training because it vastly improves student outcomes. According to Toyota's National Training Manager, Bruce Chellingworth:

"Teamwork and respect for people are fundamental cornerstones of Toyota's culture. In these areas, Phill is one of a kind. He has made the enormous effort to introduce Lean into ACE. This has helped to align our cultures and engender confidence. The two of us also share a passion for continuous improvement. We're always looking for better ways to do things. In our many discussions, Phill is always focused on getting the best for both ACE and Toyota, and he's not afraid to be honest and provide alternative ideas when needed. Everything he says and does is deeply respectful – both to ACE and Toyota. This is the characteristic I value most in Phill."

And as Mark Manns, Renault National Service Manager, noted:

"Through Phill's leadership and management Renault Australia has been able to offer its national dealer network a leading educational product that provides a foremost industry standard apprenticeship training program. This sees outcomes that benefit the apprentice, dealership and Renault Australia through increased retention of apprentices and customers, the highest quality vehicle service and repair services and high customer satisfaction and loyalty."

## ACCOMPLISHMENTS

Throughout his career Phil established himself as a VET innovator. In 1986 at the Wimmera Community College of TAFE (a regional college) he was an early adopter of remote learning technologies across a vast agricultural/farming community with the initiation of the Farm Secretaries program by distance learning.

In 1995 at the John Batman Institute Phill co-developed the Victorian College of Automotive Business Management in liaison with the Victorian Automobile Chamber of Commerce. This was a fully fee-for-service program which proudly boasted and achieved the cost of the program in savings the business owners made from their improved knowledge in insurance, costing/quoting, retail techniques etc.

At Kangan Batman in 1999 he introduced the Practice firm concept (from Germany); a simulated company with direct follow on employment with the sponsors, Optus and Ansett. The engagement with both these companies again affirmed his view that real industry connections are made with real engagement with enterprises in their activities.

The standout achievement (from 2001), which could be said to have grown from the former developments, was the conception, drive, and passion to bring Industry and Education design together in the Automotive Centre of Excellence (ACE) which has both national and international recognition as a leading edge automotive vocational facility.

The facility and operation mirror what the modern automotive vehicle is, fashionable, digital, clean and green, open and transparent, with an operating model that reflects the industry, based on the Toyota Production System (Lean). With many national clients including Renault, BMW, Mercedes, etc. it has a proven track record.

## INTERNATIONAL VALUE/ENGAGEMENT

Phill has led the local, national and international development in dominant automotive international student's programs at Kangan with a focus on workplace practicums, and co-delivery at VET providers in countries, such as Jiaxing Nanyang Polytechnic (JNP) in China which also require mandatory placements in dealerships thus ensuring student have the skills, knowledge and attitudes to competently work productively in their industry. He has also been deeply involved in the development of the Indian Automotive Centre of Excellence (I-ACE) in Gujarat, India. The establishment of the International Automotive Centre of Excellence (I-ACE) in an industry led model by Maruti-Suzuki (47% of the

Indian Light Vehicle market), the Gujarat State Government, Kangan Institute, Pandit Deendayal Petroleum University (PDPU), the Gandhigar Industry Training Institute (ITI), Nettur Technical Training Foundation (NTTF) KPMG India and many industry partners and sponsors represents a major shift into a vocational educational model in India; away from theory based delivery to practical vocational training with guaranteed employment outcomes.

## WORDS OF WISDOM

Customer Focus – Going to the Gemba (worksite of both industry and VET regularly) was a key focus of Phill's learning and always remained so. Understanding the industry connections, operating models and future directions can all be inculcated in the educational design of the provider and has been done. Replicating old educational models does not make the grade.

Industry Partnerships - Implementing industry practices of leading-edge enterprises (not associations) meant for automotive moving away from old batch processing models (Class of 15-20) to individualization/customization (Class of One) design in education. This was centered on Lean Thinking.

Respect for People – Develop respect through thinking, listening and behavior allows for gaining trust from industry, team, and multiple stakeholders. Celebrating problems and making them apparent and visible using Visual Management Boards (VMB) allows all staff and industry partners to see the progress of problems and keeps management focused.



**OUTSTANDING  
EDUCATOR**





## GOLD AWARD

**Name of recipient:** Xiaoyang JIN

**Category:** Outstanding Educator

**Country:** China



## INTRODUCTION

Xiaoyang Jin, Associate Professor and Senior Technician, is the Dean of School of Culinary Arts at Tourism College of Zhejiang in China. He serves as the Vice Chairman of China Catering Education Working Committee and is recognized as an Advanced Worker of China Cultural Tourism Industry. He is also the founder of Chinese Culinary Art Inheritance Master Studio and has been appointed as the special expert of catering business for the G20 Hangzhou Summit and 19th Hangzhou Asian Games. He is renowned as a Chinese Cooking Master, Zhejiang Craftsman and has been honored as one of “The Most Beautiful People of Zhejiang”.

## AWARD-WINNING INDIVIDUAL

As a Chinese culinary educator, he firmly adheres to the educational philosophy of “Culinary Skills Make a Career and Culinary Morality Makes a Man”, constantly promotes professional development, and improves the quality of professional training. He is deeply involved in classroom teaching while also planning for the professional development. Xiaoyang Jin actively engages with the industry and promotes employment opportunities. He led core teachers to conduct scientific research, compile textbook and establish standards and has led the formulation of more than ten standards including program teaching standards, industry standards and competition standards commissioned by the Ministry of Education and the Ministry of Human Resources and Social Security, etc., He has also presided over or participated in more than ten provincial and ministerial-level projects, led skilled technicians to visit enterprises and compete in various contests, tutored the students in different kinds and levels of competitions, winning over 200 gold medals. The employment rate of graduates is 100% every year and the programs have successfully passed the UNWTO's Quality Assurance Certification for five successive times.

As an inheritor of Chinese culinary skills, he led the National Technical Master Work Studio and has designed and prepared Chinese zodiac-themed banquets for five successive years, filmed more than 100 short videos on food culture and cooking instructions, which have been widely promoted in

countries and regions along the “Belt and Road” such as Russia, Serbia, and Italy. Through these videos, he showcases traditional Chinese cooking techniques and telling Chinese culinary culture. He also led the volunteer service team of model workers and craftsmen of Zhejiang Provincial Federation of Trade Unions to keep up with latest industry trends and learn new skills, visit rural areas, and explore local intangible cultural heritage related to food. They actively participated in government projects such as “Thousand Dishes in Hundred Counties” and “Shared Prosperity in 26 Mountainous Counties”, working tirelessly towards rural revitalization and common prosperity day and night.

## ACCOMPLISHMENTS

Professional development is leading in the country: He leads the School of Culinary Arts at Tourism College of Zhejiang to pass the culinary education quality certification of both WACS and UNWTO TedQual.

Professional training is excellent in the industry: With more than 30 years of teaching, he has trained dozens of national banquet chefs and culinary masters, along with nearly 100 professional teachers and senior management personnel.

Theoretical research achievements are abundant: Presided over the formulation of more than ten standards including program teaching standards, industry standards and competition standards commissioned by the Ministry of Education and the Ministry of Human Resources and Social Security, etc. Participated in the compilation of “Encyclopedia of Chinese Food Culture” and authored “Research on Zhejiang Culinary Culture Heritage”.

The influence in the catering industry is significant: He has served as the leader of the cooking expert group of National College Skills Competition and as the referee of the provincial and national professional skill competitions for many times. Honored with over forty titles including “National Model Worker in Culture and Tourism Industry”, “National Outstanding Teacher of Catering Vocational Education”, “Zhejiang Craftsman”, “The Most Beautiful People of Zhejiang”, and “Zhejiang Technical Expert”.

## INTERNATIONAL VALUE/ENGAGEMENT

Xiaoyang Jin took the lead in the establishment of the Sino-Serbia Tourism College and Sino-Italy Culinary College based on the local culinary schools in Serbia and Italy. He formulated the “Chinese Culinary Craft Course Standards” and carried out “Chinese + Culinary” course to promote Chinese culinary arts. He collaborated with domestic and foreign catering enterprises, associations, and institutions to build the “Serbia Luban Workshop” and the “Sino-Italy Cuisine New Silk Road Culinary Education Alliance”. On one hand, he develops “Overseas Chinese Restaurant Standards” to help Chinese culinary enterprises go global. On the other hand, he introduces international advanced culinary arts educational resources to improve the quality of international culinary professionals’ development.

## WORDS OF WISDOM

“Food” is the most wonderful medium of communication for human beings. As a culinary educator, one shall always adhere to the educational philosophy of “Culinary Skills Make a Career and Culinary Morality Makes a Man” and teaches students to integrate local culture and the emotion of “friends from afar” into their catering creation. “Food” is a career worthy of lifelong pursuit. As an inheritor of culinary skills, one shall always convey the spirit of dedication, professionalism, and continuous improvement just like a craftsman. “Food” is the golden key to achieve common prosperity. As a pioneer in the catering industry, one shall share advanced techniques and valuable experiences with those in need, contributing to the common prosperity for all.



## SILVER AWARD

**Name of recipient:** Peter "Dutch" Vandenberg

**Category:** Outstanding Educator

**Country:** Canada



## INTRODUCTION

Peter "Dutch" Vandenberg is a dynamic, collaborative, and enthusiastic professor at Niagara College (NC) whose passion for his craft, students and the College is infectious. As Program Coordinator of NC's Broadcasting – Radio, Television and Film (BRTF) program, Dutch helps students realize their potential through unique real-world learning opportunities and consistently demonstrates the College's values of being student-focused, welcoming, passionate, and trailblazing. A natural leader and mentor to both students, alumni and colleagues, Dutch gives freely of his time to inspire greatness in those around him and to support his community.

## AWARD-WINNING INDIVIDUAL

After graduating from NC's BRTF program himself in 1993, Dutch worked as a freelancer and with his family's production company. He guest lectured and taught part-time at the College before joining permanently as full-time faculty in 2009, allowing him to transfer his industry experience to the future of Canadian broadcasting. A leader in curriculum development, he was among those tasked with redesigning the BRTF program in 2015 to improve student mobility between program streams and balance student workload. Dutch and his colleagues mapped curriculum, revised program outcomes, evaluated competitor programs and redeveloped program of instruction. In 2018, he was appointed BRTF's Program Coordinator.

Through his leadership, Dutch embodies the College's mission to provide outstanding applied education and training for a changing world and enriching lives and fulfilling dreams. He is known for creating robust applied learning opportunities that help his students develop critical, relevant skills through real-world projects.

He has co-ordinated student crews to work local, national, and international productions for major sporting events in Niagara, Ontario including the 2016 IIHF U18 Women's World Hockey Championship, the 2018 FIBA U18 Americas Championship Basketball Tournament and the 2019 Canadian Olympic Wrestling Trials and the Niagara 2022 Canada Summer Games.

Fueled by both a devotion to student success and pride of community, the unique opportunities that Dutch creates for students are innovative and often incorporate elements of social responsibility.

When students shifted to online learning during the global Covid-19 pandemic, Dutch created innovative solutions to provide students with valuable experiential learning opportunities. He identified critical components of in-person events/activities and worked with students and faculty to reimagine the experience from a virtual perspective. Throughout the pandemic, Dutch and his students continued to safely provide essential programming to the College and the local community. When many institutions postponed convocation ceremonies, NC broke new ground under Dutch's leadership with an innovative model for virtual Convocation in 2020 and 2021. The virtual ceremonies provided hands-on learning opportunities for students who worked behind-the-scenes and offered graduates and their families an impactful graduation experience during the pandemic. Dutch's contributions are not limited to the college. He also collaborates with community organizations, including to make important social, political, cultural, and philanthropic events accessible to residents.

Dutch's ability to innovate, lead, inspire and mentor, helps students build confidence, pushing them beyond their boundaries so they're ready to shine in their careers.

## ACCOMPLISHMENTS

Dutch has received global, national, and internal college awards for his teaching excellence, innovative and collaborative spirit, and his support of student recruitment. In 2023, along with his Silver Outstanding Educator Award from WFCP, Dutch was honoured with a Gold Leadership Excellence Award for Faculty from Colleges and Institutes Canada (CICan).

He also represents the College on associations and committees, including as Ontario Director, Canadian Media Educators. In 2022, Dutch took on the role of Chair, Broadcast Operations and Production Services for the Niagara 2022



Canada Summer Games, solidifying NC's role as the Games' official Digital Production Partner. Through the opportunity, he facilitated once-in-a-lifetime experiential learning and work opportunities for over 100 BRTF students and alumni who supported the national multi-sport event in various capacities including director/technical director, camera operator and announcer/play-by-play commentator to robotic camera operation, replay and audio. Leveraging the latest in broadcast technology, the crew covered over 90% of the Games' competitions and delivered over 1,000 hours of live coverage, available to Canadians nationwide and people all over the world through an online streaming platform on the Canada Games website – a first in the Games' history.

Through his leadership, Dutch has advanced NC's reputation across the postsecondary sector and the broadcast industry for the development of highly skilled, job-ready graduates. He also has a genuine ability to stay connected with his alumni network to offer them continuous mentorship. As a result, Dutch's grads are eager to collaborate on projects with their alma mater long after graduation.

## INTERNATIONAL VALUE/ENGAGEMENT

Dutch's commitment to providing unique applied learning experiences for students is an example to many. His student and alumni crews have produced professional broadcasts for major sporting events that have been watched by viewers around the globe, showcasing NC and the BRTF program on the world stage.

Through Dutch's involvement with the Niagara 2022 Canada Summer Games, current and future students will benefit for years to come through state-of-the-art equipment acquired by the BRTF program from the Games. Dutch and his students will leverage the legacy equipment to broadcast future events, including the 2024 World Rowing Championships in St. Catharines, Ontario.

## WORDS OF WISDOM

Dutch believes that teaching is a privilege and not a right – “we don't have to teach, we get to teach.” He also firmly believes that inspiration is a necessity for both the educator and the student. Finding what students are motivated by or passionate about is the beginning of a powerful cycle that fuels that inspiration for everyone.

As an educator, his favourite letter is 'E' – not 'A' – because this letter represents every stage in education. “Our opportunity is to get students to 'Explore,' 'Engage,' 'Experience' and 'Excel' to ultimately find 'Employment.'” Working in a technical industry, with constant advancements and innovation, Dutch still feels that greatness comes from the craftsperson and not just the tools and technology. “Our opportunity is to leverage technology to unleash the creativity within our students and to walk alongside them towards their goals. Through this journey, we get to make connections and change lives.



## BRONZE AWARD (TIE)

**Name of recipient:** Karen Klee

**Category:** Outstanding Educator

**Country:** Canada



## INTRODUCTION

Karen Klee, professor, and coordinator of Fanshawe's Developmental Services Worker (DSW) program is an enthusiastic and innovative educator demonstrating a strong commitment to student success.

Karen specializes in the complex health care needs of people with disabilities and teaches health and pharmacology courses in the program, along with providing academic leadership. Karen's philosophy of teaching is to engage the student in authentic and challenging activities that are universally designed and provide ample opportunity for timely detailed evaluation so that the student can develop into the best DSW graduate possible.

## AWARD-WINNING INDIVIDUAL

A nurse clinician by trade, Karen became Waterloo Region's first health care consultant for people with developmental disabilities in 1995 where she specialized in supporting families and residential agencies – through teaching and training – in the care and management of people with complex medical needs.

In 2003, Karen was awarded the Ontario Association of Developmental Disabilities' Professional Recognition Award for contributing significantly to the integration of individuals with developmental disabilities into the community. In 2014, she won OADD's Award of Excellence for her contributions to the enhanced well-being of those with developmental disabilities.

Karen began teaching part-time at Fanshawe in 2006 and, after starting a Master of Education, became a full-time professor in Fanshawe's School of Community Studies in 2013. Within four years, Karen was promoted to an academic coordinator actively involved with the development and launch of Fanshawe's Gerontology – Interprofessional Practice (GIP) program. In September 2019, she moved over to lead the DSW program.

Throughout her career, Karen has proven herself to be an

engaging, passionate, accessible and thoughtful student-focused educator. Her enthusiasm and command of the subject matter, high personal and academic standards, and consistent commitment to student success make Karen an invaluable asset to the College.

While her role at the college has changed, Karen has remained committed to engaging external partners to provide students exceptional learning opportunities that benefit the community. She also regularly consults community partners to ensure the program remains effective and relevant.

Karen is a vocal advocate of the developmental sector, sharing her experiences and passion at conferences and on numerous public health committees to ensure the safety of vulnerable people. During a media interview during the 2020/21 academic year, she raised concerns about the wage inequality experienced by DSWs during the pandemic.

Karen chairs a provincial workforce initiative focused on attracting and retaining people to the field and ensuring that schools and developmental services agencies work together to prepare graduates to meet client needs.

Karen exemplified the selfless nature of her profession by returning to frontline care early in the pandemic with Kitchener/Waterloo-based community living organization, KW Habilitation. She has since "brought the agency into the virtual world" by creating 40 training modules on implementing safe infection prevention and control practices during the pandemic and helped organize pop-up vaccine clinics for people with developmental disabilities.

## ACCOMPLISHMENTS

Karen has shown tremendous leadership as an early adopter of new technologies to improve program delivery and eagerly shares her findings with colleagues across the College.

Prior to the COVID-19 pandemic, she successfully incorporated blended learning and advanced technology (e.g., interactive H5P applications) into her courses to enhance student engagement and comprehension. Karen employs a

“flipped classroom” approach to course delivery that sees her create interactive online lectures—with H5P-enabled knowledge checks throughout to gauge uptake—that her students can complete at their own pace at home. This allows Karen to focus classroom time on applied exercises and skills development.

Karen encourages, supports, and guides colleagues to embrace eLearning tools and strategies and incorporate universal design principles to improve the student experience.

Karen uses multiple modalities for delivering and evaluating content to make subject matter more accessible. She offers a menu of assignment options giving student agency in their learning plan and the option to explore topics of interest.

Karen’s student feedback scores (averaging between 4.75 and 4.90 out of 5, compared to 4.50 average), a testament to how her teaching style resonates with her students.

While DSW programs at other colleges shifted to virtual placements early in the pandemic, Karen worked with faculty and community partners to continue live placements to ensure students had authentic experience working with people with disabilities before graduation.

In 2021, Karen received the President’s Distinguished Achievement Award (Faculty) from Fanshawe and in 2022 was recognized with the CICan Gold Leadership Excellence Award for Faculty.

## INTERNATIONAL VALUE/ENGAGEMENT

Karen exemplifies a student-first “here for you” mindset by facilitating an open dialogue with Fanshawe’s Counselling and Accessibility Services to support students with accommodations. While leading the Gerontology

Interprofessional Practice (GIP) program at Fanshawe, she worked with the International Centre to ensure international students were given strategies and resources to be successful.

Karen values and promotes the integration of international students into the community. She substantially adapted curriculum by revising a 10-month fast-track version of the DSW program, designed to accommodate international students arriving with credentials, into a full year program. The shorter program didn’t meet the criteria for the purposes of a student’s permanent residency card and the additional two months ensured a higher quality experiential learning experience before graduation.

## WORDS OF WISDOM

Students want a connection with their professors in the classroom. Flipping the classroom by using engaging technology to teach theory frees the professor’s time to spend on problem-solving and tackling real life problems through applied and hands on activities in both the lab and field. It’s an approach that allows the professor to engage more and build a rapport with students.

Passion for a subject will resonate with students and models behaviour that they will carry with them long after graduation. They will also remember “stories from the field” and fierce advocacy – in Karen’s case, advocacy for equality and inclusion despite systemic barriers, as much as they will remember how to calculate a pharmacology dose.

Karen believes that when you love what you do, how you do it and who you work with, your passion – and impact on students – will shine through.





## BRONZE AWARD (TIE)

**Name of recipient:** Basaralu Sudharshan

**Category:** Outstanding Educator

**Country:** India



## INTRODUCTION

Basaralu Sudharshan, graduated in Mechanical Engineering from SIT, Tumkur, India and received his Master's in Mechanical Engineering from UVCE, Bangalore University, India. He is currently pursuing a PhD in Management.

Sudharshan has over 25 years of experience in Operations Management, Lean Management and Supply Chain Management across Automotive, Engineering and Multinational companies.

Sudharshan brings global work experience across key geographies in Asia, Europe and America including a diversified cultural experience through living in Germany and USA for many years.

## AWARD-WINNING INDIVIDUAL

Basaralu Sudharshan, is the Managing Director and Board Member of Nettur Technical Training Foundation (NTTF), leading TVET across India through the NTTF network its associate partners. His work spearheads corporate trainings in technical education and soft skills. He also heads the Post Graduate school, and IT reskilling of NTTF.

Sudharshan worked as Director of Volvo Group, USA and Asia between 2010 to 2012 leading international teams for both Construction Equipment and Truck businesses. He lived and worked in Germany from 2005-2010 at Managerial positions at Bosch and Knorr Bremse leading global sourcing activities. He also worked in Bosch India from 1996 to 2005 contributing to establishment of Bosch Auto Electrical business in India.

## POSITIONS ADORNED BY MR. SUDHARSHAN:

Research Scholar from Indian Institute of Social Welfare and Business Management (IISWBM), Kolkata, India

- Director – VOLVO Group, USA
- Director – VOLVO Group, ASIA.
- Director – Bombardier, India

- Leadership positions in BOSCH Germany and India.
- Chairman of Confederation of Indian Industry, Karnataka SKILLS TASK FORCE.
- Member of National CII Skill Council.
- Member of BRITISH COUNCIL SKILLS from India.

Life Member of Indian Institute of Material Management. He is also a regular speaker at various national and international forums of Government, Corporates and Academia for TVET, skilling and social livelihood development.

## ACCOMPLISHMENTS

Sudharshan joined NTTF in 2016 and today he leads all the training centers across India at 30+ locations contributing to skill eco system of India, making a difference to thousands of youths through diploma programs and short-term skilling.

In the past 6 years, Sudharshan has trained over 300 differently abled youth on skilling programs. All the trained youth are employed in good companies earning livelihoods. The entire education for the youth under this program is free. NTTF was able to get sponsorship for this program from corporate organizations.

He also designed and implemented a short-term skilling model to train female candidates for manufacturing industries. In this model, students with 12 years of formal education are trained on domain skills and soft skills for industry readiness and corporate culture awareness. With this program, over 2000 students were trained and deployed in industry, contributing to diversity and inclusion.

Through his work, Sudharshan collaborates with local Universities to concurrently offer Degrees and Diploma skilling programs with credit transfers. This ensures students are awarded Bachelor of Vocational Studies (B.Voc), which is equivalent to any other degree in the Indian education system. More than 500 students have benefited so far from this model.

## INTERNATIONAL VALUE/ENGAGEMENT

Sudharsan has led the benchmarking of NTTF Diploma with International Diploma of UK together with NOCN, UK and NCC, UK. Established an equivalency for the NTTF India Diploma and UK International Diploma. Students while completing the course in India can parallelly acquire international Diploma with a bridge course and assessment. The international recognition led pathways to study in many Universities in UK and other countries and enhancing the employability perspective as well.

For thousands of Alumni of NTTF, developed a program with Lincoln College, Malaysia to award bachelor's in engineering recognising the work experience and the credit transfer of NTTF Diploma which has helped many Alumni to be engaged in further studies and acquire additional qualifications. Engaged with British council as part of International TVET projects and exchanged ideas and visits together with commonwealth countries.

## WORDS OF WISDOM

In today's world, skill is gaining more importance than the degree on paper. The person with skill will cherish and move ahead in this dynamic world. Apart from domain skills it is very important to have cognitive, analytical skills along with soft skills to be ahead of competition.

As the technology is changing rapidly like never before, one needs to develop the attitude of lifelong learning and be ready to change the domain as and when necessary. For this to happen, the foundation must be perfect so that one can adapt quickly to the changing world.

Institutes must go hand in hand with the industry revolution and technology changes to seamlessly transfer knowledge to students together with digital transformation.



**OUTSTANDING  
STUDENT ACHIEVEMENT**





## GOLD AWARD

**Name of recipient:** Qixing Zhang

**Category:** Outstanding Student Achievement

**Country:** China



## INTRODUCTION

Zhang Qixing, male, 22 years old, is a student in the Department of Resource and Environmental Engineering of Hebei Vocational University of Technology and Engineering. He has good learning ability and teamwork spirit, solid professional knowledge, and rich practical experience. During his school years, he actively participates in various extracurricular activities and social practice to broaden his horizon and enhance his overall ability. He is an excellent communicator, has strong organizational skills and problem-solving abilities.

## AWARD-WINNING INDIVIDUAL

Zhang Qixing is an excellent representative in the field of rural innovation services. His outstanding achievements and contributions have been widely recognized, and he has won several awards, including the National Silver Award in the China College Students' "Internet + Innovation and Entrepreneurship" Competition and the second place in the China Vocational Education Society Innovation and Entrepreneurship Competition.

Zhang Qixing has acquired rich knowledge about innovation and entrepreneurship in the "Excellence Class" organized by the university and has worked with his teachers to study innovative treatment methods for rural domestic sewage. Responding to the national call for entrepreneurship, he founded the "sewage treatment" workshop. While participating in competitions, listening to the advice of his mentors, he puts his methods and ideas into practice, facing the challenges of the front-line market. In this process, he continuously improves his team's ability. In the early stage of the project, Zhang Qixing was the general manager responsible for technical research and project promotion. With his unrelenting efforts, he led his team to overcome one hardship after another.

Under the leadership of Zhang Qixing, the "sewage treatment" workshop has made certain achievements in rural sewage treatment. He wants to solve more rural environmental problems to contribute more to the construction of a beautiful

countryside by furthering his education and acquiring more professional knowledge.

## ACCOMPLISHMENTS

Zhang Qixing studied hard and was ranked at the top of his class in all subjects in the final exams. He was awarded the National Inspirational Scholarship for the academic year 2020-2021 and the National Scholarship for the academic year 2021-2022.

Zhang Qixing has rich experience and profound knowledge in rural services. His inventions and innovations made in rural sewage treatment has made him stand out in the aspect of building beautiful villages and he has been hailed as a typical case of employment and entrepreneurship for college graduates in Hebei Province in 2022.

Besides, Zhang Qixing also actively participates in voluntary work, public welfare and other social activities, and always devotes himself to publicizing and promoting the concept of rural revitalization. He has been widely praised and was awarded the "Xing Xiaoniu" Gold Award for Volunteer Service.

With his diligence, talent and dedication, Zhang Qixing has made great contributions to the construction of a beautiful countryside.

## INTERNATIONAL VALUE/ENGAGEMENT

1. The International Value: of Zhang Qixing is mainly reflected in the following areas:
2. Academic achievements: during his school years, he was diligent and hard-working and achieved excellent grades in all subjects and courses. He has also published several papers and won several awards in science and technology competitions.
3. Social services: his team has developed a sewage treatment system for rural areas, an achievement that not only improves the local rural habitat, but also contributes to rural revitalization and China's carbon neutrality strategy.

4. Personal qualities: he showed great patience in his village service and managed to spread the novel techniques among villagers. He also took care of his grandmother while participating in competitions. He completed the online evaluation materials for the national competition next to his grandmother's hospital bed, which shows his sense of family responsibility and work ethic.

## WORDS OF WISDOM

1. Combining practice, experimentation, and exploration. New ideas need to be repeatedly tested, improved, and optimized

in the practice process so as to achieve ultimate success.

2. Courageously facing difficulties and challenges. It is inevitable that you will encounter various difficulties and challenges in life, and you need to have a resilient spirit and a positive attitude to finally overcome difficulties.

3. When faced with problems, instead of reasoning by analogy, one should work out a solution by studying the most fundamental truth.



## SILVER AWARD

**Name of recipient:** Shiyang Mo

**Category:** Outstanding Student Achievement

**Country:** China



## INTRODUCTION

Mo Shiyang, born in Nanxun, Huzhou, Zhejiang Province, was enrolled in Tourism College of Zhejiang in 2020 and studied in the program of Convention & Exhibition Planning and Management. She has now successfully founded Hangzhou Xiangxiang Tourism Culture Development Co., Ltd., which is committed to the rural vitalization and poverty alleviation in China.

## AWARD-WINNING INDIVIDUAL

Taking the advantage of her major, Mo Shiyang explored new urban hotspots in her spare time. To find out what the rural China needs, she visited nearly 100 villages, doing research and communicating with the villagers face-to-face. By integrating the hottest trend elements such as Murder Mystery Game, camping, and light social interaction, and combining the local rural culture, she created the “1+x” mode to plan rural cultural and tourism activities. An immersive Murder Mystery Game themed “Xincang Experience” was planned for Xincang Town to help its rural development, which consists of rural economic cooperative role plays, rural labor education, and green classes. The project was not only recognized and supported by the local cultural and tourism bureau, but also included in the 2022 action plan of the Ministry of Culture and Tourism for the quality improvement of vocational tourism education. It will be completed in 2024 and is estimated to attract 10,000 visitors and contribute an income of 12.99 million yuan annually.

The implementation of Xincang experience education project will effectively promote the rapid economic development of the town and its surrounding areas and benefit the farmers directly. It is estimated that it can provide 200 jobs for the farmers. Meanwhile, this project will promote the long-term development in agriculture and fishery, cultural and creative products, folk tourism, and leisure tourism, and help 150 households to increase their income. The per capita income of the farmers is expected to increase by 3,000 yuan, a remarkable achievement.

## ACCOMPLISHMENTS

Mo Shiyang knows well that the development of tourism industry plays a huge role in driving the economy. Born in Huzhou, the birthplace of the Two-Mountain theory, the girl knows that practicing the Two-Mountain theory and creating characteristic culture are two magic keys to the development of rural tourism. She led her team to assist the construction of Anchang Ancient Town as a 5A scenic town. She took more than 100 days to visit the villages and worked out a detailed research report and project plan. Finally, she and her team successfully helped Anchang Ancient Town develop and promote its unique cultural and creative products, and design landscape logo series. Her success in Anchang ancient town can bring an income of nearly one million yuan to it.

## INTERNATIONAL VALUE/ENGAGEMENT OF THE INDIVIDUAL AWARDED

Poverty has always been a stumbling block to the development of all countries in the world and a major obstacle that hinders the progress of human civilization. Mo Shiyang and her team conducted in-depth research in the poverty-stricken rural areas across China. Focusing on protecting the rural ecological environment, she empowered rural development with scientific and technological innovation and cultural tourism wisdom. By exploring rural intangible cultural heritages, she assisted publicizing the Chinese traditional culture and inheriting the ancient handcrafts. This has not only greatly promoted local economic development in environmental protection, enhanced the sense of happiness of the local people, but also contributed the wisdom and strength of the young Chinese to the protection of the world's ecology and the international cultural Gene pool.

## WORDS OF WISDOM

The development of social economy and the improvement of people's living standards are providing the rural tourism market with a promising future. In the future, rural tourism will pay more attention to ecological environmental protection, cultural inheritance, quality services and diversified development, so as to provide tourists with better tourism experiences. Meanwhile, Chinese college students in the new era will also keep striving for the development of rural tourism.





## BRONZE AWARD

**Name of Recipient:** Desirae Kilduff

**Category:** Outstanding Student Achievement

**Country:** Australia

## INTRODUCTION

Desirae is a strong Australian First Nations woman who is an ambassador for Professional and Technical Education and Training (PTET) in her personal life, the Australian First Nations community, her organisation, and the wider Australian professional industry. Desirae was awarded Indigenous Student of the Year award in 2021 at Bendigo Kangan Institute and in 2022 was awarded a state (Victoria, Australia) award, named Indigenous Student of the Year. This year Desirae was also an Indigenous finalist in Australia's National PTET awards.

Desirae works for Maxima Group Australia, providing Indigenous Employment Programs to the Australian First Nations community. She is passionate about First Nations

employment outcomes for wellbeing and prosperity. Desirae shares her experience with PTET and how her training and education provided her with a career that has allowed her to mentor other First Nations young people and adults into their own careers.

Desirae also volunteers with at-risk youth engaged with the Australian Justice System to mentor and support these young people through their mental health challenges and barriers to support them into employment and PTET opportunities. Desirae works closely with the First Nations community and has had a great impact on students and the organisation she works for, achieving organisational goals. She has received accolades from her organisation that reflect the level of work she undertakes.



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