



# WVEST Partners

INVESTING IN COLLABORATION AND PARTNERSHIPS

Edited by Rebekah Parker and Jennifer Pelletier  
With foreword by Dr. Elizabeth Croft  
And contributions from the WVEST Partners



Westcoast Women in Engineering,  
Science & Technology



Chairs for Women in Science and Engineering  
Chaires pour les femmes en sciences et en génie

# WWEST PARTNERS:

INVESTING IN COLLABORATION AND PARTNERSHIPS

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With contributions from

**WWEST Partners, 2010-2015**

Adam Jelley  
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Westcoast Women in Engineering, Science, & Technology  
2010-2015 | University of British Columbia

[www.wwest.mech.ubc.ca](http://www.wwest.mech.ubc.ca)



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## FOREWORD

Dear Friends and Partners,

I write this foreword with a deep sense of wonder and gratitude. Wonder at what has been accomplished and gratitude to the many, many people who tirelessly- and happily - continue to open doors and invite girls and women be part of the wonderful and exciting opportunities in STEM - Science, Technology, Engineering and Math, in the BC and Yukon Region.

WWEST Partners owes much to the Jade Bridges Programme led by former NSERC Chair for Women in Science and Engineering, Anne Condon and before that, to the SWIFT project – Supporting Women in InFormation Technology, led by our first NSERC WISE chair – Maria Klawe. They, along with the pioneers in the Society for Canadian Women in Science and Technology and in the Division for Advancement of Women in Engineering and Geoscience laid the groundwork for the change in the regional conversation around gender in STEM that we have seen in the past five years. Providing the hub to bring these groups together, along with many others, has been one of the true accomplishments of the WWEST Partners program.

Of course, WWEST Partners would not have been realized without the support of the sponsors of the NSERC Chair for Women and Science and Engineering 2010-2015:

- UBC Faculty of Applied Science
- BC Hydro
- WorleyParsons
- Teck Resources Ltd.
- Stantec
- Dr. Ken Spencer
- Henry F. Man
- Ms. Catherine Roome, P. Eng.
- Mr. Stanley Cowdell, P. Eng.
- The Division for Advancement of Women in Engineering and Geoscience of APEGBC
- Nemetz & Associates
- Glotman Simpson Consulting Engineers
- Karen Savage, P.Eng.
- Golder Associates Ltd.

Jennifer Pelletier was the mastermind behind the coordination of this program and the nerve centre of the NSERC Chair – we are all indebted to her creative and organizational genius. I also want to extend a special thanks to the colleagues who gave of their time to select the partners and award the funding each year.

In bringing groups and individuals together to bond and to build– starting even before WWEST at the first Creating Connections conference in 2009 – WWEST Partners has become many things: a community quilt, a conversation – an ever-growing network of fun, exciting and interesting people who love what they do and truly want to give back. The network, based on simple ideas – bringing people together, providing seed funding, and supporting success and sustainability through training and professional development - has grown enormously. With the success of Creating Connections 4.0, the continuation of the NSERC Chair at Simon Fraser University with Professor Lesley Shannon, the establishment of the Goldcorp Professorship at UBC held by Professor Sheryl Staub-French, and the level of outreach, networking and advocacy activity across the BC-Yukon region, the network has truly taken a life of its own - well beyond any reasonable expectations. I am fully confident in the leadership for Women in STEM in the BC/Yukon region. Yes. we need to keep the pressure on, but the change is already visible – women are entering these careers in growing numbers, and succeeding at the highest levels.



*Make a difference – follow the Ten Rock Rule.*

*Photo by David Pelletier, used with permission.*

WWEST Partners is an example of the “Ten Rock Rule” - a rule I learned while walking on a beach path one day. This particular path allows everyone to walk down to the beautiful clear water without stumbling over the sharp, barnacle covered rocks which cover the beach. Each time you walk down the path, and each time you walk up the path you pick up 10 rocks - of any size, and toss them off the path. In this way, the path grows wider and smoother and stays clear all summer. This is not a written rule, it is not posted on any signs, and often not even verbally communicated. It is a rule, learned by example, as newcomers watch others perform this ritual and then follow their example. Some people only move one rock, others many. It doesn't matter, really, every rock can make a difference - whatever each person can contribute is welcomed. It is an easy idea, as you are walking, make the path a little bit easier for the next person coming along. It seems to me that this is where we are at as women in STEM. Pioneers, both men and women, have made a path, they have put in a great effort and as a result we are able to travel along much further in our careers, where in the past it was really hard slogging. But for many the path is still a bit narrow, and there are still some stumbling blocks that wash in. If everyone along the path - newcomers and old hands alike – would, in their own way, help to “remove the rocks” through outreach, mentoring, supporting diversity policy development, awareness raising and advocacy the path would grow wider, and more people would be attracted to the wide opportunities offered in these careers. Every volunteer, every mentoring conversation, every girl engaged, every woman encouraged makes a difference in STEM

The reports in this book tell the rest of the story. The work done and the outcomes achieved are outstanding. I have learned much from this network about the goodness and willingness of people to help, to make change, to show up and to pitch in. I have learned about the value of invitation, of the space to be heard, the wonders of the collective, and importance of the personal. Thank you to everyone involved – I remain in wonder and gratitude.

Sincerely,

Elizabeth Croft

NSERC Chair for Women in Science and Engineering, BC/Yukon Region, 2010-2015



## ACKNOWLEDGEMENTS:

WWEST Partners is part of the WWEST program, part of Dr. Elizabeth Croft's 2010-2015 NSERC Chair for Women in Science and Engineering for BC and Yukon. The inspiration for this program came from the previous Chairholder, Dr. Anne Condon, who lead a similar program called the Jade Project.

WWEST Partners would not have been possible without the work and dedication of many people, including the WWEST Partners selection committees and the WWEST team, notably Heather Gerrits, Kyle Philibert, Justin Yang, and Janet Fraser.

This book is a compilation of the work of many authors. Each summary draws heavily on the reports we received from our WWEST Partners. Thank you to Adam Jelley and Brie Sommerville for their assistance in drafting and editing documents.

We would also like to acknowledge the sponsors of the 2010-2015 NSERC Chair for Women in Science and Engineering for BC and Yukon – without their support, WWEST would not be possible:

Natural Sciences and Engineering Research Council of Canada  
Faculty of Applied Science at the University of British Columbia  
BC Hydro  
WorleyParsons  
Teck  
Stantec  
Dr. Ken Spencer  
Henry F. Man  
Ms. Catherine Roome  
Mr. Stanley Cowdell  
Division for the Advancement of Women in Engineering and Geoscience  
Nemetz (S/A) & Associates Ltd.  
Glotman Simpson Consulting Engineers  
Karen Savage, P.Eng.  
Golder Associates Ltd.

## WHAT IS WWEST PARTNERS?

WWEST Partners is a funding program, training program, and community of practice that brings together both new and established not-for-profit organizations from BC and the Yukon that share a common goal: advancing gender diversity in science and engineering.

When Westcoast Women in Engineering, Science, & Technology (WWEST), the program of Dr. Elizabeth Croft's NSERC Chair for Women in Science and Engineering for the BC and Yukon Region, began in September 2010, the region already boasted a huge number of non-profit and institution-based groups that had expertise, name recognition, contacts, and people passionate to help. It was clear that the most effective way to deliver meaningful, community-centered programming was to support and grow the success of these organizations.

Established in early 2011, WWEST Partners helped community members to learn, share, and disseminate best practices and build towards the long-term sustainability of their respective programs. WWEST provides targeted training opportunities, seed funding, and expertise.

WWEST Partners programs target all levels of outreach, and all areas of the region, providing broader, sustained, and community-based impact. Seed and expansion funding agreements are one to three years in length, and range up to six thousand dollars per project.

## THE IMPACTS AND BENEFITS OF THE WWEST PARTNERS PROGRAM

*"Support from the WWEST Partners program allowed All-Girls Science programming in the Yukon to flourish. It was important for our program to have connection to the wider community. Thank you!"*

*- Heather Dundas, Coordinator, Science Adventures, Yukon College*

The WWEST Partners program has benefitted the BC and Yukon region in several significant ways. First, the program itself has supported key grass-roots, community-based organizations. Second, it has created a culture of cooperation and support linking these groups together. Third, it has provided the necessary seed funding to start new programs or grow successful programs to reach a wider audience.

The BC and Yukon region contains a few densely-populated areas where the vast majority of the population lives, and hundreds of smaller communities, many of them quite remote from the major centres. Different areas have unique needs, and organizations already situated in these areas have connection, understanding, and day-to-day presence that is impossible to duplicate through a distant program, even with visits to the area. Investing in WWEST Partners invests in communities, organizations, and people, and ensures programs are sustainable year-round and well into the future.

Finding like-minded organizations, sharing best practices, and developing collaborations can be daunting, if not impossible, for smaller not-for-profit groups, particularly those that are entirely reliant on volunteers. WWEST Partners made this easier, encouraging groups to get connected, providing targeted training opportunities, and providing incentives for collaboration.

Some organizations that are not affiliated with a university or are located outside of a major urban centre experience additional barriers. Providing travel funding allowed them to fully participate in WWEST Partners training and networking events, and ensured they felt supported.

Groups that previously had relatively small regular audiences are working together to co-present events, broadening their impact. For example, two WWEST Partners that typically reached less than twenty participants each partnered with a group which had not previously offered women in STEM programming, selling out an evening talk with one hundred participants.

The most direct impacts of WWEST Partners were the work of the Partners themselves. Each organization advanced women in science and engineering in their community, based on the needs they observed or experienced. This book tells their stories.

## BUILDING SUSTAINABILITY

The WWEST Partners program was designed to ensure sustainable funding model. Although individual funding structures were based on the needs of each group, partners were encouraged to consider multi-year funding agreements that diminished over time.

The multi-year agreements provided the initial capital needed to start a program, a reliable base of support on which to grow and, as the amounts diminished over time, compelled partners to pursue other sources of funding before the WWEST Partners agreement was complete. The multi-year funding agreements helped organizations plan for long-term success and provided the stability needed to encourage other funders to invest in the projects.

The WWEST Partners model was recognized by non-profits and by local industry as being an effective way of encouraging grass- roots engagement. As such, the program will continue under the 2015-2020 WWEST Program at Simon Fraser University and the UBC Engineering eng•cite program.

## THE WWEST PARTNERS PROCESS

### FLEXIBLE OPTIONS TO REFLECT THE DIVERSITY OF ORGANIZATIONS

The WWEST Partners program offered three types of affiliation to reflect the needs of the organizations we worked with:

- Affiliates were organizations with aligned goals or programming that did not require financial support from WWEST;
- Funding Partners were organizations with current funding agreements;
- Network Partners were organizations with completed funding agreements.

New funding partners were eligible to apply for New Initiatives funding, which was available for new projects or significant expansions of programs. At the end of their initial funding agreements, organizations were eligible to apply for strategic planning extensions and/or impact measurement extensions.

### NEW INITIATIVES

Organizations were able to apply for grants for one to three year grant for new or expanding projects. Single-year projects were eligible for grants up to \$5000; multi-year projects were eligible for grants totaling up to \$6000.

The intention of the funding was to help establish or expand programs, and it was expected that projects had matching funds from other sources and a plan for continuation after WWEST Partners funding ended. Projects were only eligible for funding once.

### STRATEGIC PLANNING EXTENSIONS

Organizations that had previously completed WWEST Partners agreements were eligible to apply for a Strategic Planning Extension. These extensions, of up to \$1000, were available to support organizations which were undertaking strategic planning to increase their organizational capacity and readiness to continue their projects. They were not general extensions for the programs; well-developed, detailed proposals and timelines were expected for applications in this category.

### IMPACT MEASUREMENT EXTENSIONS

Organizations that had previously completed WWEST Partners agreements were eligible to apply for an Impact Measurement Extension. These extensions, of up to \$2,000, were available to support organizations which were undertaking significant research to measure the impact of their projects, such as implementing widespread, literature-informed evaluations, or designing and validating a measurement tool. Well developed, detailed

proposals and timelines, along with an outline of the approach to research and the credentials of those participating in the process, were expected for applications for this category. Project results must be public, and methodologies and tools must be licensed at no charge for non-profit education sectors (e.g. available in a public access journal).

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## ELIGIBILITY

Funding was restricted to non-profit organization with a registration that is recognized in the BC/Yukon Region, and educational institutions. Groups that could not meet this requirement were encouraged to collaborate with groups that did.

The WWEST Partners program was specifically designed for programs with a broad impact. Funding for teams, participation in conferences, and other individual pursuits was not available.

Organizations could apply for multiple projects, and projects could apply for multiple categories.

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## NOTIFICATION OF INTENT TO APPLY

Each year, WWEST sent out a call for proposals. Interested organizations were asked to submit a one page abstract that outlined their organization and their proposed initiative. All organizations that submitted abstracts that met the basic requirements for the WWEST Partners program were invited to our annual training and networking day.

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## WWEST PARTNERS TRAINING DAY

The WWEST Partners training days included a workshop on a topic relevant to the WWEST Partners organizations, formal and informal networking opportunities, and abstract reviews.

During the lunch hour, each organization has a private discussion with WWEST representatives about their abstract, where they discuss their goals and receive feedback before final proposals are due. This helped less-experienced Partners improve their applications before they are sent to the review committee. It also helped WWEST to identify areas of overlap early, allowing us to suggest collaboration or coordination.

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## APPLICATIONS AND SELECTION

Applications were free-form, and restricted to three pages plus appendices. Each application contained a summary of the organization applying, a summary of the project, the need for the project, and the impact of the project. Appendix I was detailed budget; Appendix II and Appendix III were specifically for extensions, covering milestones and approaches.

Project selection and funding was based on recommendation from a review committee, which included members from industry, the not-for-profit community, and academia.

Project selection was based on:

- The need for the project, including geographic and sector considerations;
- The impact the project would have and the number of people affected;
- The sustainability of the project after the funding ends, including organizational capacity;
- Organizational readiness for the funding;
- Appropriate plans for how the project will be meaningfully measured and plans for dissemination of results;
- Other factors were sometimes considered to ensure diversity in funded applications.

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## PROJECT IMPLEMENTATION

WWEST Partners were responsible for all project implementation. Many Partners pursued at least part of their project in cooperation with Partners doing similar activities in a different area. WWEST was available for advice or assistance upon request.

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## REPORTING

WWEST Partners reported on their progress yearly, with a final report due at the end of the project. These reports form the basis of this publication.



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Chair for Women in Science and Engineering  
BC and Yukon Region

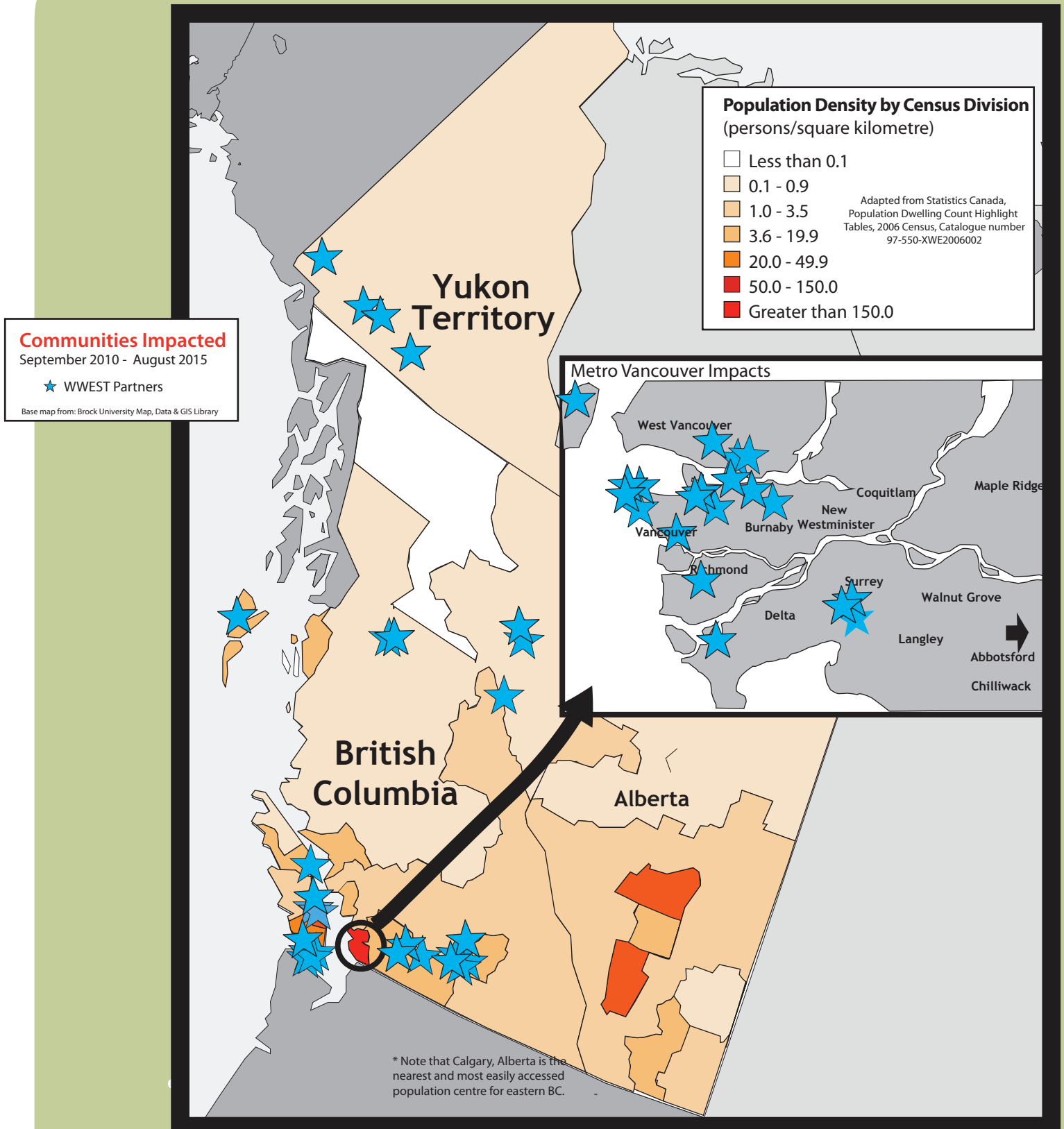


WVest

Westcoast Women in Engineering,  
Science & Technology

# WVest Partners Impact Map

September 2010 - August 2015



## WHAT IS WWEST?

Westcoast Women in Engineering, Science & Technology, commonly referred to as WWEST, is the operating name for the programs of the National Sciences and Engineering Research Council of Canada (NSERC) Chair for Women in Science and Engineering for the British Columbia and Yukon Region.

WWEST opens doors and invites girls, women, and everyone else to engage with STEM: science, technology, engineering and math. Through policy advocacy, research, and grassroots outreach, WWEST aims to attract and retain women in STEM careers.

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### OUR MISSION:

The mission of the Chair is to advance engineering and science as welcoming careers that serve our world through holistic understanding and creative, appropriate and sustainable solutions.

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### OUR GOALS

The primary focus of the NSERC Chair for Women in Science and Engineering (BC/Yukon) is to promote Science and Engineering as an excellent career choice for women and other under-represented groups, and to identify and eliminate barriers that result in attrition from these career paths. To address the challenges described above, three strategic thrusts for this Chair, aligned with the overarching NSERC goals for this program, are identified:

1. Awareness and Outreach
2. Recruitment
3. Retention and Industry Support

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### OUR HISTORY AND FUTURE

WWEST was founded by the 2010-2015 NSERC Chair for Women in Science and Engineering for BC and Yukon, Dr. Elizabeth Croft at the University of British Columbia.

The WWEST brand will remain with the NSERC Chair for Women in Science and Engineering for BC and Yukon, under the new 2015-2020 Chairholder, Dr. Lesley Shannon at Simon Fraser University.

## THE WWEST PARTNERS



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### ORGANIZATIONAL SUMMARY

The women in engineering groups of Simon Fraser University (SFU), University of British Columbia (UBC), British Columbia Institute of Technology (BCIT), and Langara College formed an inter-university collaboration called the Academic British Columbia Women in Engineering (ABCWiE) in 2011.

The UBC Women in Engineering (WiE) program creates opportunities for students to network with peers and industry professionals while enhancing professional competencies through a myriad of workshops and events provided by the Faculty. SFU Women in Engineering Group (WEG) offers guidance in the transition to university life, support throughout university, and assistance in navigating post-grad job opportunities. BCIT and Langara also host women in engineering groups where students connect through professional development, social, and outreach events, and promote engineering education and careers to women. Spearheaded by individual student councils, these four WiE programs serve over one thousand women undergraduate and master's students at all four institutions.

ABCWiE aims to build a strong technological community and support network as well as share resources on the Canadian West Coast. Collaboration between WiE groups help to broaden and enhance support networks for women students and increase opportunities for informal mentoring. This regional support network beyond their home institution aims to help students who transfer institutions mid-degree, work in a co-op position in another area of BC, pursue graduate studies at a different institutions, or those who wish expand their network to students at other institutions.

ABCWiE facilitates social, networking, company visits, and professional development WiE events open to students from any institution offering engineering courses in British Columbia.

For more information visit [www.wie.engineering.ubc.ca/committees](http://www.wie.engineering.ubc.ca/committees)

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## PROJECT SUMMARY:

### A WIEKEND IN SEATTLE & DESIGN AND DESSERTS

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WVWEST PARTNER FOR: 2012-13

GRANT VALUE: \$2,000

ABCWiE organized a three day trip for 28 students, with preference given to women, to visit top technical companies in Seattle in 2012. The purpose of the trip was to introduce students to post-graduate opportunities and challenges, as well as allow them to experience firsthand the scope of their field. Students visited many areas on the trip, including the University of Washington's BioRobotics lab and Boeing, where they enjoyed a guided VIP tour of the factory and manufacturing process. At the Museum of Flight, they were inspired by Concorde, Air Force One, and NASA's Super Guppy among other famous aeronautical engineering designs. Finally, students were given a tour and speaker panel on career development and work-life balance at Microsoft.

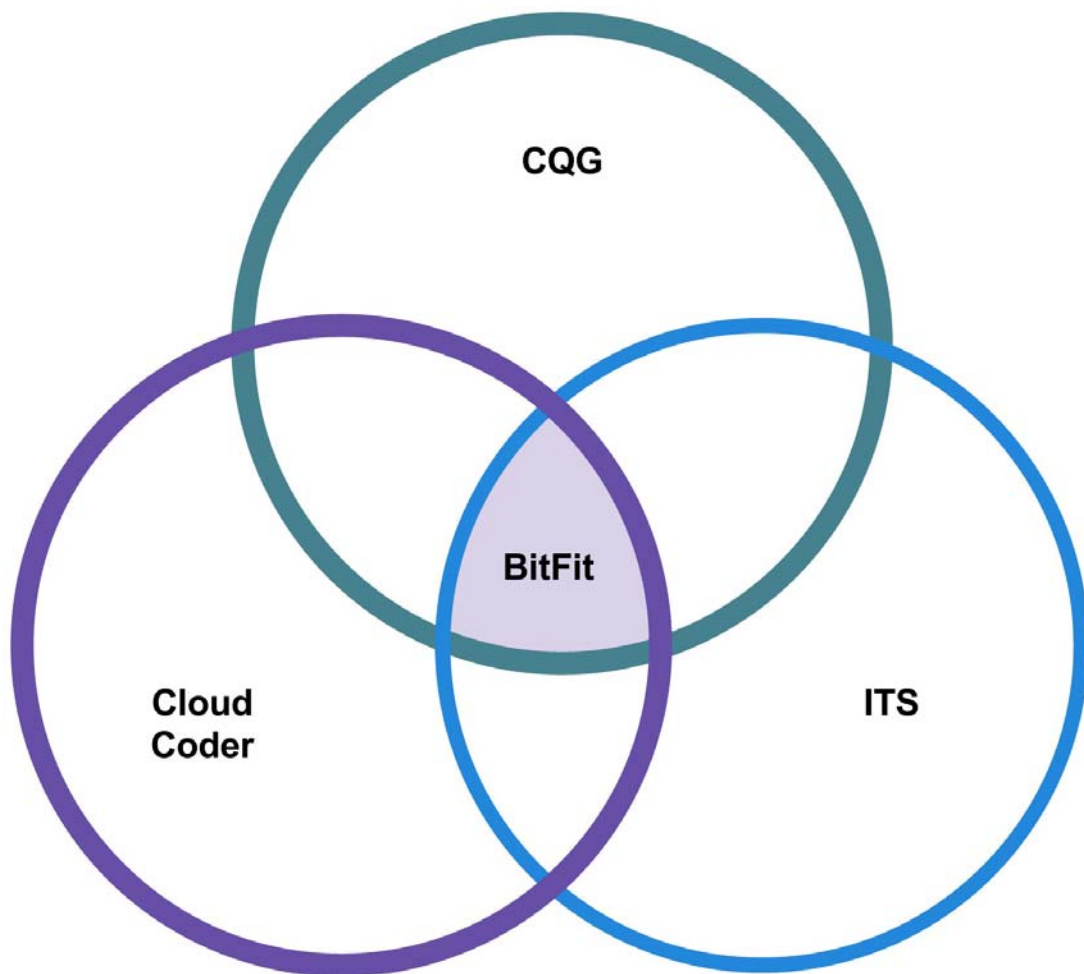
A few months before the trip, ABCWiE also organized a "Design and Desserts" event aimed to introduce trip participants to each other and strengthen bonds between students. The evening of interactive, team-building activities offered art canvases, easels and paints as well as dessert and non-alcoholic drinks. Students were invited to collaboratively paint on each of the 15 canvases, creating artwork together as a way of getting to know one another.

The trip succeeded in introducing students to post-graduate opportunities and challenges of their field, gave potential employers a chance to connect with future employees, and provided students (from all schools) an

opportunity to network with likeminded students in their field and widen their support network.



The trip was very well received, and scored a 4.2 on a scale of 5 for overall satisfaction. The feedback showed that the trip exceeded many expectations, particularly the chance for students to explore their fields, and for potential employers to connect with future employees.



## BIFIT ONLINE PROGRAMMING PRACTICE & LEARNING TOOL AT THE UNIVERSITY OF VICTORIA DEPARTMENT OF COMPUTER SCIENCE

WWEST PARTNER FOR: 2014-15

GRANT VALUE: \$2,000

*Project undertaken by: Dr. Yvonne Coady, Anna Russo-Kennedy, and Anthony Estey*

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### PROJECT SUMMARY

Recent results show that only one in 10 organizations in Canada are able to meet critical needs in emerging areas such as data science, mobile and cloud computing. Forecasts indicate that by 2016, the Canadian economy will be short over 100,000 technology specialists, and in a decade there will be 1.5 million tech jobs unfilled. Computer Science struggles to retain undergraduate students, especially from underrepresented groups. As a result, Dr Yvonne Coady at the University of Victoria's Department of Computer Science began to develop strategies for active mentoring and intelligent tutor systems for students called the BitFit.

With WWEST funding support, the University of Victoria were able to complete the development and begin the evaluation of an enriched online educational opportunity that is now available for multiple institutions.

Specifically, this tool was designed for students who are new to technology, and offers additional support for learners to assess their own progress as they engage in hands-on activities with an intelligent tutor framework. When students use the tool, it gathers data about how they interact with it, and it is used to encourage active participation with the course material. Preliminary research that went along with the development of BitFit suggests that using BitFit or similar tools could improve students' experiences in introductory programming courses.

BitFit, has been showcased at the Learning and Teaching Centre at UVic, and was the centrepiece of both a Master's and PhD thesis. The framework was created by Anna Russo-Kennedy (MSc Student) and Anthony Estey (PhD student).

For more information contact Dr. Yvonne Coady at the University of Victoria

### ORGANIZATIONAL SUMMARY

The annual Canadian Undergraduate Mathematics Conference is Canada's premier conference for undergraduate students in mathematics-related fields. The conference, first organized in 1994, gives undergraduate students the opportunity to present their own research projects, listen to keynote speakers, and mingle with other students who share their passions for mathematics.

The core values of CUMC are:

- Bilingualism
- Regional diversity
- Non-competitiveness

Each year during the conference, student representatives from across the country select the upcoming host based on presentations from student committees. The successful committee then organizes all logistics of the event, including fundraising and hosting the full conference.

For more information visit [www.cumc.math.ca](http://www.cumc.math.ca)

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PROJECT SUMMARY:

2012 CUMC - WOMEN IN MATHEMATICS DINNER

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WWEST PARTNER FOR: 2012

GRANT VALUE: \$1,000

The 2012 CUMC was held at UBC's Okanagan campus in Kelowna, BC, where the 3<sup>rd</sup> annual CUMC Women in Mathematics dinner took place. The theme of the night was "Breaking Down Barriers: Challenges Facing A Female Mathematician."

An evening for women faculty and students, the dinner hosted 44 guests and included an hour-long panel discussion with 5 prominent women in academia and industry. The evening began with a round table discussion, held in the Centre for Dialogue in the newly renovated Library at Okanagan College, where panelists from both industry and academia had the chance to share their experiences and discuss a range of topics. Dinner was served outside in the Courtyard in the beautiful Kelowna sunshine. During dinner, the participants and panelists mingled and continued their conversations.

*"Our objective is to bring women in mathematics-related careers together with female math students, to share their experiences in surmounting the challenges faced by women in science."*

### ORGANIZATIONAL SUMMARY

Creating Connections is a bi-annual conference for science, engineering and technology students and professionals. The conference covers topics on gender diversity and aims to engage meaningful dialogue about diversity in science, engineering and technology disciplines. This in turn builds capacity for individuals and organizations to engage in transformative and long-lasting change in STEM fields.



This conference began as a symposium and has now grown into four bi-annual conferences gaining audiences of hundreds of STEM professionals, academics and students. The audience includes people of all genders, people in career transition, managers and human resource professionals, and members of the wider community. UBC Engineering and WWEST 2010-2015 organized the first three conferences in collaboration with industry and academic partners. The first conference was held at Loon Lake in Maple Ridge in 2009, with the following two conferences hosted at UBC Vancouver.

Creating Connections 4.0 was hosted at Simon Fraser University. Simon Fraser University engages actively with the community in its education and research, delivers almost 150 programs to more than 30,000 students, and has more than 120,000 alumni in 130 countries. At SFU, efforts to encourage and support outstanding teaching, research and community engagement by advancing gender and racial equity in STEM fields span all three campuses and illustrate SFU's vision of a "student-centred, research-driven, and community-engaged university." SFU has always supported women in science and technology. This includes: recruiting successful women faculty as leaders and role models in science and technology; creating positions that promote diversity and recruitment; developing new policy guidelines for supporting women students who take maternity leave during their graduate studies; and outreach programs that introduce girls to science and technology. Additionally, SFU was successful in their application for Dr. Lesley Shannon to be the new NSERC Chair for Women in Science and Engineering for the BC/Yukon region.





## PROJECT SUMMARY:

### CREATING CONNECTIONS 4.0: ENGAGING OUR WORLD

WWEST PARTNER FOR: 2014-15

GRANT VALUE: \$5,000

Creating Connections 4.0 was hosted by SFU on May 22-23, 2015 with the aim to bring together people of all genders and backgrounds for two days to discuss issues of personal and professional development, networking, and inspiration. The hope was to engage individuals and organizations to create a world where everyone can explore and participate in the opportunities provided by engineering, science and technology to improve our world.

The conference began with the announcement of two new NSERC Chairs for Women in Science and Engineering: Dr. Lesley Shannon for the BC/Yukon region and Dr. Eve Langelier for the Quebec region.

Creating Connections 4.0 featured a new Leadership and Diversity track, which was aimed at leaders/managers as well as self-identified future leaders in industry. To provide attendees of this track with information and best practices on creating a diverse workforce, sessions included a keynote on "The Business Case for Diversity." This Friday session drew 61 professionals (10% men, 90% women) who took part in hands-on workshops such as "Strategic Recruiting: Values-Guided Hiring" and "Insightful Leadership."



New NSERC Chairs for Women in Science and Engineering: Dr. Lesley Shannon (left) and Dr. Eve Langelier (right)

Saturday's sessions focused on professional development in three areas: Leadership Skills, Entrepreneurship, and Women in STEM Outreach. Three workshops were offered on each subject along with three inspiring keynote speakers, including five-time Olympic medalist Hayley Wickenheiser. Over 170 attendees (10% men, 90% women) participated in the conference on Saturday, including 36 students who were sponsored by SFU, UBC, BCIT and Creation Technologies. Also offered on Saturday was the Creating Connections Kids Program, run by SFU's Science Alive Outreach program, which featured supervised fun and exciting activities for school-aged children to keep them engaged and cared for during the conference.



"I was very inspired by Creating Connections 4.0. I recommend both women and men to attend any future events."

The conference was successful in bringing together people from a variety of backgrounds for inspiring discussions about diversity in engineering, science and technology. The sessions allowed for valuable networking and professional development.



### ORGANIZATIONAL SUMMARY

The UBC Chapter of Engineers Without Borders (EWB) is active throughout campus and includes members from all engineering disciplines as well as other faculties. Work within Canada includes holding a youth outreach leadership conference as well as numerous presentations in high schools. EWB also runs a Global Engineering program which includes student directed seminars and a first year engineering curriculum course.

The Youth Venture's purpose is to prepare and better educate young people about the problems that face the world today through challenging pre-conceived assumptions about international aid, social development, local vs. global poverty, and the role that engineers play in the world.

EWB highlights the importance of the social aspects of engineering and sciences through workshops, presentations and conferences.

For more information visit [www.ubc.ewb.ca](http://www.ubc.ewb.ca)



## PROJECT SUMMARY:

### IT'S OUR ENERGY! CONFERENCE

WVEST PARTNER FOR: 2014-15

GRANT VALUE: \$250

On March 28th 2015, EWB hosted a Youth Venture conference for 25 students (6 women students and 19 men) at the UBC Vancouver campus entitled *It's Our Energy!* The event featured a series of workshops and presentations on the theme of renewable energy, and how engineers are tackling its complex technical and social problems.

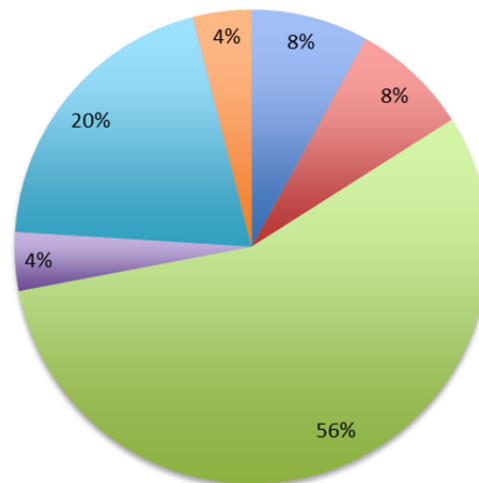
Guest speakers were invited to discuss renewable energy initiatives, both local and international, considering the pros and cons of the available methods. One presenter was the UBC Engineers for a Sustainable World Biodiesel project, which produces biodiesel from waste cooking oil for the UBC community. The event also hosted a design competition where students were tasked with building a small-scale wind turbine using just a motor and simple building materials. Designs were completed in teams, and required students to use their critical thinking skills.

The feedback received from the students was positive, with many saying they learned a great deal about sustainability in engineering and enjoyed working on their critical thinking skills in small groups. They also learned about the importance of the social aspects of engineering and that the field involves more than technical skills.



Registration by City

■ Burnaby ■ Chilliwack ■ Richmond ■ Vancouver ■ Surrey ■ Delta



### ORGANIZATIONAL SUMMARY

Geering Up UBC Engineering & Science for Kids is a non-profit, student-run organization dedicated to promoting science, engineering and technology to the children and youth of British Columbia through fun, innovative and hands-on experiments and projects. GEERING Up! strives to reach all children and youth regardless of gender, ethnicity, culture, or socio-economic status, with special outreach for those groups traditionally underrepresented in the sciences.

Geering Up delivers STEM outreach programming for youth from kindergarten to grade twelve. It also offers special outreach programming for groups traditionally underrepresented in STEM, including girls, Aboriginal youth, and at-risk youth.

Geering Up is an entirely student-run program, and has reached over 90,000 youth British Columbia since it was founded in 1995. It has three main branches of programming: fall and spring after-school clubs, in-school workshops during the spring, and Summer Camps in July and August.

From 2011 to 2013, WWEST provided a 3-year grant enabling Geering Up to expand their Girls Only! programming. Girls Only! initiatives included providing workshops to Girl Guides clubs as well as offering a Girls Only! week of camp at the Vancouver campus to empower and inspire girls to consider careers in the fields of science, engineering and technology.

In 2015 alone, Geering Up reached 6,150 youth in workshops and 2,600 youth in camps. This impact reached 17 communities across BC, including Metro Vancouver, Hope, Chilliwack, Prince George, Tsleil-Waututh and Musqueam Nations, Penticton and Kelowna.

Geering Up has grown in capacity since partnering with WWEST in 2011, hiring 45 staff members for 2014/2015, training 150 summer high school volunteers, and running 113 weeklong day-camps between July and August 2015. Their after-school clubs continue to expand, offering five at UBC-Vancouver in fall 2015 and spring 2016

For more information visit [www.geeringup.ca](http://www.geeringup.ca)



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## PROJECT SUMMARY:

### GIRLS ONLY! CAMPS & WORKSHOPS

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WWEST PARTNER FOR: 2011-13

GRANT VALUE: \$6,000



exposed to the multifaceted nature of STEM. Participants also interacted with women in STEM mentors, staff and volunteers.

The curriculum for these camps and workshops were developed by Geering Up instructors and covered topics including: Rube Goldberg Machines, hovercrafts, strawberry DNA extraction, squid dissections, and VEX robots.

WWEST's 3-year funding for Geering Up supported three strands of programming:

- 2011-2012: Free workshops for Girl Guides of Canada
- 2011-2013: Girls Only! Camps
- 2013: Free workshops at Boys and Girls clubs and inner city schools

The funds supported free workshops to 233 girls through the Girl Guides of Canada. The workshops enabled Sparks, Brownies and Guides to achieve badges as part of the curriculum. In 2013, 49 (one third) of all Geering Up workshops were offered for free in Vancouver and Boys and Girls clubs, or at inner city schools.

Geering Up Girls Only! Camps create a comfortable learning environment for girls to explore their potential and build confidence in

STEM fields. In the summer of 2011, Geering Up reached 67 girls through its Girls Only! Camps, 75 girls in 2012, and 87 girls in 2013.

Through interactive and hands-on sessions, girls were

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## PROJECT SUMMARY:

### GEER GALS CLUB

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WWEST PARTNER FOR: 2014-15

GRANT VALUE: \$2,500

The Geering Up Girls Club, called Geer Gals, was a unique opportunity to work closely with 23 girls throughout an entire school semester. The programming is designed to increase girls' exposure to and engagement with science, engineering and technology. The funding provided by WWEST allowed Geering Up to run their first Girls Only club. The project was extremely popular and led to increased club offerings in the following spring. Thanks to WWEST's support, after school clubs have become a permanent part of Geering Up programming,



Instructors

commented that the long time span of this program allowed them to create a deeper connection with the participants. This project has allowed the Geering Up Girls Only program to offer more girls a safe place to discover, learn and gain interest in STEM fields.

Extensive one on one instruction was possible through eight three-hour sessions, to a small and engaged group of elementary school girls. Topics ranged all across engineering and science, and allowed the girls to explore the topics and follow their passions. The project allowed girls to experience different facets of STEM, receive mentorship, and feel connected to likeminded peers.

Geering Up plans on continuing expanding its Girls Only clubs in fall 2015 and beyond. In 2015 Geering Up hopes to offer two age brackets of Girls Only clubs at UBC Vancouver campus, while continuing to offer Girls Clubs with the Vancouver School Board.



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## PROJECT SUMMARY:

### GEER GALS CLUB – LEGO MINDSTORMS EQUIPMENT EXPANSION

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WWEST PARTNER FOR: 2014-15

GRANT VALUE: \$2,500



In 2015, Geering Up was able to offer the Girls Club program a unique opportunity: exploring the field of robotics through LEGO Mindstorms. Using WWEST funding, five LEGO Mindstorms kits and the required software were purchased to enhance the curriculum of the after school club. The Mindstorm kits are designed for imagination and exploration, as students can build and program LEGO robots to complete a variety of tasks.

The Girls Club ran for eight three-hour sessions for girls in grades 8-9. Weekly topics ranged across STEM disciplines, with the LEGO Mindstorms being a particular success. Geering Up instructors witnessed the girls acquiring skills and confidence throughout the program, which they can carry into their communities at school and home.

The new equipment allowed the girls to have more time to work with technology and computers, which would not be possible with Geering Up's past store of equipment and resources.

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## PROJECT SUMMARY:

### GIRLS CLUB WITH THE VANCOUVER SCHOOL BOARD

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WVEST PARTNER FOR: 2014-15

GRANT VALUE: \$3,250

In January 2015, 20 students from Lord Roberts Elementary School, grades 4-7, were invited to attend Geering Up's Girls Club, in partnership with the Vancouver School Board.

The program ran for 8 weeks, from January 14 to February 25, 2015 at the school, with the students enjoying 1.5 hour sessions every week.

Activities during the program included:

- Squid dissection - Topics included biology, body systems, and aquatic life. In pairs, the girls were guided through a dissection and were challenged to find the tiny "beak" of their squid.
- Lego Mindstorms - Subjects included robotics, basic programming, mechanical and electrical engineering.
- Egg drop design challenge - Instructors discussed the engineering design cycle, budgeting, and teamwork.
- Electromagnets - Instructors lead an activity in which the girls used nails, wires, and batteries to magnetize the nails. They tested them on paper clips!
- Snap circuits & breadboarding - Exploring parallel, series circuits with both snap circuits as well as LEDs and resistors.

Staff reported that the students were very engaged and enjoyed exploring a wide variety of STEM topics. The squid dissection in particular started off with many girls being wary of the "gross-ness", but by the end they were all getting their hands dirty.



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## PROJECT SUMMARY:

### GIRLS ONLY KELOWNA CAMPS

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WVEST PARTNER FOR: 2014-15

GRANT VALUE: \$2,500

Using the WVEST funding, Geering Up launched two Girls Only! camps for one week in Kelowna, BC. The Quarks, grades 2-4, had 22 participants, and the Electrons, grades 5-7, had 11 participants.

The curriculum for the camps included:

- Egg drop design challenge (+ parachute for Electrons). Instructors discussed gravity, drag/air resistance, and impact
- Bouncy balls/slime. Instructors discussed polymers, plastics, 3D printing and materials engineering
- Magic Milk - food colouring and soap diffusion experiment. Instructors discussed surface tension, currents, and equilibrium
- Marbled nailpolish art. Instructors examined the ingredients in nail polish (adhesive polymers, plasticizers, pigments, thixotropic thickeners, ultra violet filters, solvents...), and continued the discussion of diffusion and surface tension
- Baking soda/vinegar volcanoes. Focus on earth science & types of volcanos
- Ooblek bucket. Instructors discussed non-newtonian fluids, density and states of matter
- Borax crystals
- Chemistry demonstrations with a mentor from the chem department
- Snap Circuits
- Bottle cap motor bugs
- Fire in a bottle
- Catapults
- Bath bombs
- Alka seltzer film canister rockets



The Kelowna camps included a local team of Kelowna-based instructors and administrator, which helped strengthen ties to the local communities.

Plans are already in place to continue offering Girls Only camp in Kelowna in 2016.



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## PROJECT SUMMARY:

### IMPACT MEASUREMENT GRANT

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WVWEST PARTNER FOR: 2013-14

GRANT VALUE: \$2,000

Geering Up is pleased to note that 43% of participants they reached in 2015 were girls: over 900 campers, and 2,850 workshop participants. To bolster their reach to girls, Geering Up offers “Girls Only!” programming in both its After-School Clubs as well as its Summer Camps. These programs provide a different atmosphere than their co-ed counterparts; however, the curriculum that is delivered is the largely same.

Geering Up has been delivering “Girls Only!” programming for years, and has collected lots of anecdotal evidence that it has been successful, but has yet to do a quantitative analysis on the benefit of running single-gender programming. They began looking into companies to do an overhaul of their camper survey system, as well as investigating options for longitudinal studies.



After examining a variety of options they found that they needed a general consultation before they went further. As such, a company was hired to do an overview of their surveying system, and to suggest tips on how to generate useful data. The changes will implemented in the fall of 2015, with two of the after-school clubs: the GeerGals (grade 4-7 “Girls Only”) and GeerBots (grades 4-7 co-ed).

Geering Up will continue to pursue deeper quantitative analysis of the benefit of our programming, once the results of the consultation have been received.

## GENDERED WORDS IN ENGINEERING RECRUITMENT PROGRAMS (GWERP)

WVEST PARTNER FOR: 2014-15

GRANT VALUE: \$3,860

*Project undertaken by: Dr. Agnes d'Entremont, Dr. Kerry Greer, and Katherine A. Lyon MA*

Gendered Words in Canadian Undergraduate Engineering Recruitment Program (GWERP) was a collaboration between UBC Mechanical Engineering and UBC Sociology targeting the gender imbalance that persists in engineering. GWERP aims to address the imbalance and to increase the number of women applying for engineering programs. The preliminary paper was presented at the 2015 Canadian Engineering Education Association Conference.

### PROJECT SUMMARY

GWERP examined the use of gendered words in Canadian undergraduate engineering recruitment materials from all English-language engineering faculties, schools and programs. The program performed content analysis, checking frequency of words that have been previously identified as masculine and feminine in job advertisements. The researchers then compared the results with the enrolment data of each school, while controlling for other factors that may influence an applicant's choice.

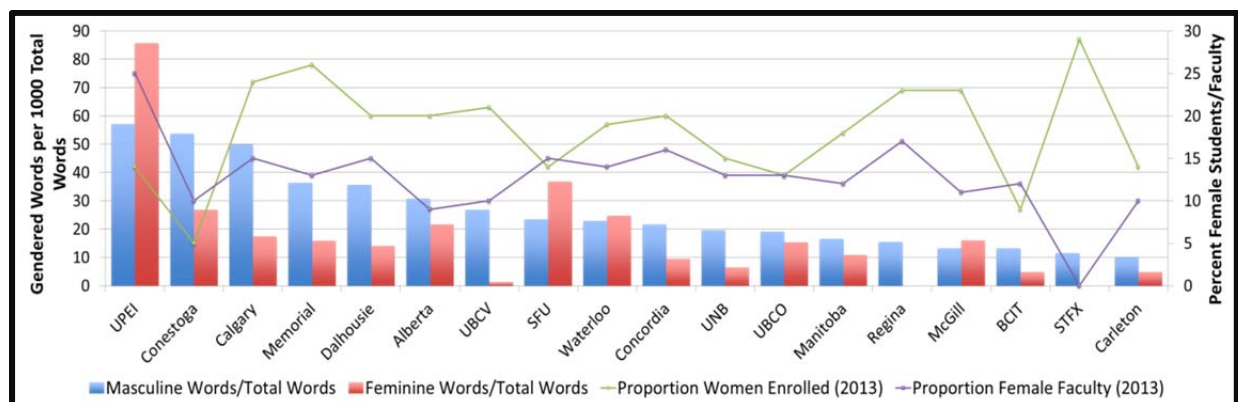
### PROJECT FINDINGS

#### By School:

- More masculine words by school (both unique words [21:17], and total instances [410:256])
- A negative correlation between the fraction of feminine words to total words and women enrolled
- A positive correlation between the percentage of female faculty and the fraction of masculine and feminine words to total words

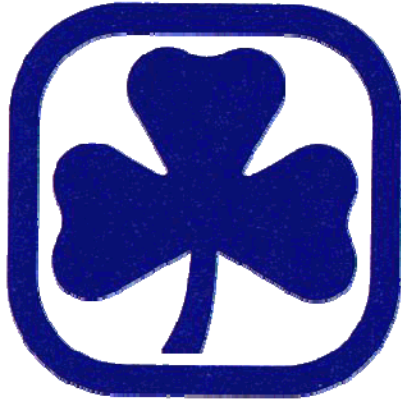
#### By Discipline:

- Disciplinary differences in percentage of women (from 8% for Computer Engineering to 37% for Biosystems Engineering)
- More masculine words by discipline (both unique words (16:10), and total instances (149:67))
- No correlation between proportion of female and male words and the number of women enrolled.



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ORGANIZATIONAL SUMMARY



**Girl Guides  
of Canada**

Girl Guides of Canada is the largest organization for women and girls in Canada.

The membership is organized into different groups according to age. These are Sparks (ages 5 and 6), Brownies (ages 7 and 8), Guides (ages 9 – 11), Pathfinders (ages 12 – 14), and Rangers (15-17+).

For more information visit [www.girlguides.ca](http://www.girlguides.ca)

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## PROJECT SUMMARY:

### SPIRIT OF ADVENTURE RENDEZVOUS (SOAR) CAMP – ENVIROSTEM PROJECT

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WVEST PARTNER FOR: 2011

GRANT VALUE: \$2,600

WVEST Partners funding supported STEM activities at the BC Girl Guides' Spirit of Adventure Rendezvous (SOAR) 2011 Camp held in Agassiz, BC. This camp offered seven Environment programs, with eight STEM activities that engaged Guides, Pathfinders and Rangers (girls aged 9-17) in hands-on science, engineering, technology and math activities. The objective was to provide fun and safe experiences for the girls to learn, think, and work as teams. The objective of SOAR EnviroSTEM was to create experiences for Guides, Pathfinders and Rangers to engage girls in hands-on science, engineering, technology and math activities, and provide fun and safe experiences for them to learn, think, and work as teams. Specifically the goals were to:

- Provide girls attending SOAR 2011 with program activities in the areas of environment, science, technology, engineering, and math;
- Encourage positive female role models in these areas;
- Take science “out of the classroom” and encourage fun, non-school-like, exciting and experiential activities and field trips; and
- Inspire girls to do further education and/or pursue careers in scientific fields.

Eight STEM programs were offered as part of the project, including: Crazy Chemists, which saw students engaging in simple chemistry experiments, such as Rockin' Robots where the kids were given the opportunity to build an hydraulic robot.

The program was fantastically successful, meeting all of the team's objectives, and even picked up media coverage as a result. Leaders reviewed all activities and made recommendations for future SOARs. Some materials from the activities were re-used throughout the year at other BC Girl Guide events. Plans were also made to work with the BC Training and Program committees to incorporate use of STEM activities into Guiding events.



*“I think I would like to work at  
[the UBC Dairy Research  
Centre] when I get older”*

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ORGANIZATIONAL SUMMARY



Girls Exploring Physics is a free workshop for girls in grades 9 and 10 held at the SFU Burnaby campus.

The half-day workshops include hands-on activity sessions in physics for girls to explore their interest in the subject. The programme also arranges for the girls to meet women scientists to discuss their career paths and advice for the students. Workshops can include tours of the new Trottier astronomical observatory.

For more information visit [www.sfu.ca/physics/outreach](http://www.sfu.ca/physics/outreach)

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## PROJECT SUMMARY:

### GIRLS EXPLORING PHYSICS WORKSHOPS

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WWEST PARTNER FOR: 2011-13

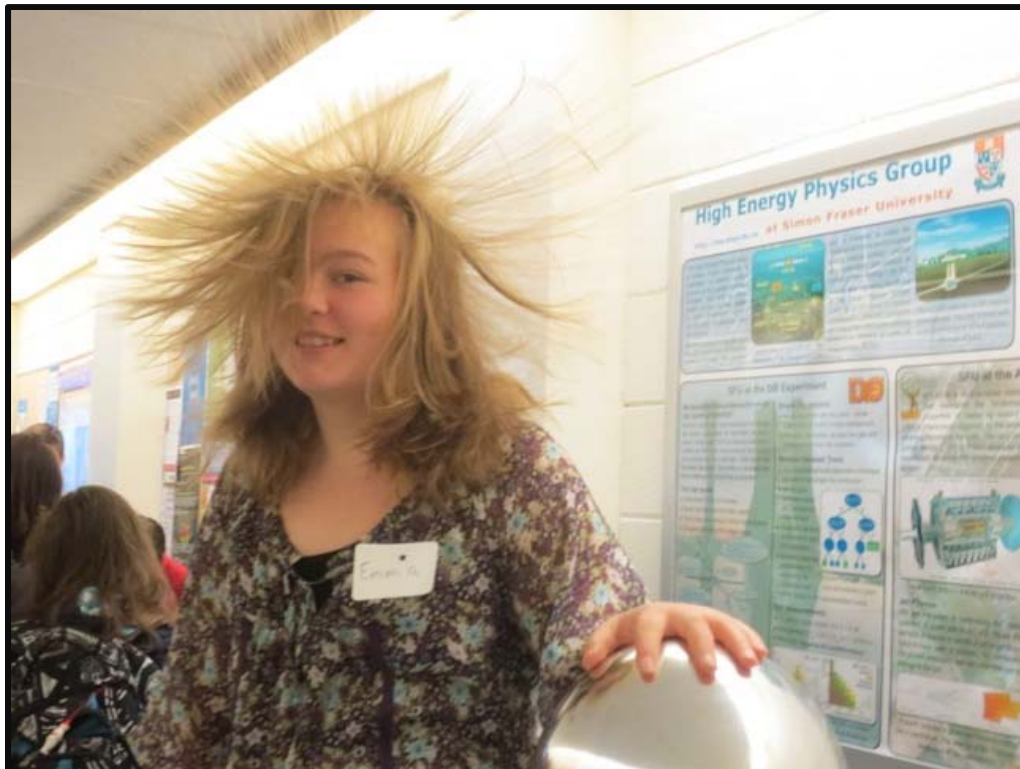
GRANT VALUE: \$2,800

This program of free workshops was run by the Simon Fraser University Department of Physics for girls in grades 9 and 10. The objective was to encourage high school girls to take Physics 11 and Physics 12, and to continue to study physics at university, as many girls drop physics at this transition. WWEST Partners funding has supported the two workshops offered each year between 2011 and 2013.

Each half-day workshop had two hands-on physics activities: *Exploring Physics Through Candy and LED's - Lighting for Efficiency and Drama*. There was also a discussion of the career opportunities with students who study physics at the university level.

During the free lunch, participants had the chance to interact informally with SFU women physics faculty and students, as well as with their fellow participants. Up to forty-eight girls attended each workshop, with participants travelling to Burnaby from as far away as the Sunshine Coast and Langley.

Participants were surveyed after each workshop to assess the success of the activities, and, for example, of the girls who attended in Fall 2013, 46/48 (96%) stated that they learned something new.





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## ORGANIZATIONAL SUMMARY

IEEE Women in Engineering (WIE) is the largest international professional organization dedicated to promoting women engineers and scientists.

IEEE WIE attempts to:

- Recognize women's outstanding achievements in electrical and electronics engineering through IEEE Awards nominations;
- Organize receptions at major technical conferences to enhance networking and to promote membership in WIE;
- Advocate women in leadership roles in IEEE governance and career advancement for women in the profession;
- Provide assistance with the formation of new WIE Affinity Groups and support ongoing activities;
- Promote IEEE member grade advancement for women to the membership grades of Senior member and Fellow;
- Facilitate the development of programs and activities that promote the entry into and retention of women in engineering programs;
- Administer the IEEE Student-Teacher and Research Engineer/Scientist (STAR) Program to mentor young women in junior and high schools.



WWEST Partners funding has supported the Vancouver Section's STAR program (Students, Teachers and Research), a pre-university outreach initiative, and networking events for their members.

For more information visit [www.ieee.org](http://www.ieee.org)

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## PROJECT SUMMARY:

### STAR OUTREACH PROGRAM

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WWEST PARTNER FOR: 2011-13

GRANT VALUE: \$1,500

The mission of IEEE WIE was to inspire, engage, encourage, and empower women in engineering, and work toward a vibrant community of IEEE women and men to innovate the world of tomorrow. For 3 consecutive years, WWEST Partners funding has supported the Vancouver Section's STAR outreach program (Students, Teachers and Research), a pre-university outreach initiative, and networking events for their members.



Events have included:

- **TRY Engineering University Field Trip and Lab Session**

In April 2011, grade 10 and 11 students from University Hill Secondary School visited the electrical and computer engineering (ECE) program at UBC. The students toured the robotics lab, attended an ECE undergraduate student teams project showcase, carried out a hands-on electronics lab project, and had the chance to talk with undergraduate students.

- **Networking Night with Amazon**

In October 2013, WIE members learnt about Amazon's services and products, hiring process, employment criteria, and working environment. The participants created connections with the Amazon employees, recruiters, and other WIE members.

- **"Meet an Engineer" Classroom Visits**

Four classroom visits were held in conjunction with the Planning 10 class at University Hill Secondary School. For each visit, a woman engineering graduate student or engineer in training led a classroom activity to safely transport potato chips using only the supplies provided. Student surveys undertaken before and after the event showed an increase in interest in engineering, and increased knowledge about high school requirements for engineering.

*85% of the high school students who were previously unaware of the requirements to get into a post-secondary engineering program learned them during the classroom visit*

*22% of the students who previously uninterested in engineering, changed their minds after meeting an engineer*



## LEADERSHIP THROUGH DIVERSITY (LTD)

### ORGANIZATIONAL SUMMARY:

Leadership Through Diversity (LTD) is a student-run group that aims to provide engineering students a chance to get involved in leadership-building opportunities, develop skills and have fun in an inclusive environment without having to commit a large amount of time throughout an entire semester, like many of the other groups on campus. It aims to help students to gain leadership skills, promote self-development, and increase involvement in faculty-related events and socializers. Events held are also tailored to allow participation from anyone in engineering.

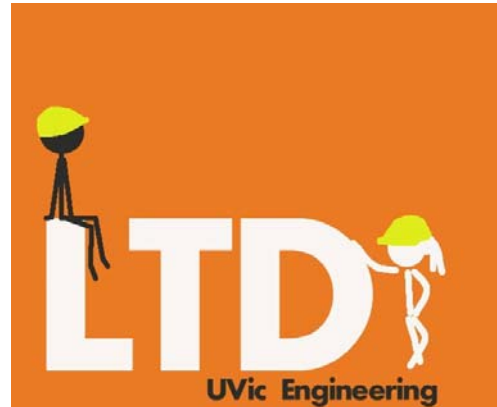
LTD focuses on 3 main principles:

- Anyone in the faculty of engineering can get involved. You don't have to self-identify as “diverse” in order to participate. LTD provides leadership opportunities for everyone in the group without carrying heavy commitment weights.
- All events organized do not revolve or focus on alcoholic/drinking events or getting drunk. The group strives to make everyone feel included and there is no pressure to conform to the drinking crowd.
- LTD especially focuses on encouraging women enrolment and retention in engineering. Many schools across Canada have long-running Women in Engineering (WIE) or Women in Science and Engineering (WISE) groups that have seen success through women-focused leadership-building events.

The idea of operating a student-run group focused on women within the Faculty of Engineering at UVic first came into existence after the founder Tiffany Yu attended the National Conference for Women in Engineering (NCWIE) in November 2011, hosted by McMaster University. The conference provided amazing opportunities to network and discuss ideas between female leaders from different student societies and post-secondary institutions across Canada. Inspired by those who were making a difference, the idea of LTD was born and started running by 2012.

At that time, neither the Faculty of Engineering nor the Engineering Students' Society provided any services that catered to diversity or women in engineering. An executive position called “Coordinator of Student Relations” was started in Fall 2010 for this purpose and helped lead to the creation of LTD.

For more information visit [www.onlineacademiccommunity.uvic.ca/ltd](http://www.onlineacademiccommunity.uvic.ca/ltd)



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## PROJECT SUMMARY:

### LEADERSHIP THROUGH DIVERSITY NETWORKING EVENTS

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WWEST PARTNER FOR: 2012

GRANT VALUE: \$200

In 2012 WWEST Partners funding supported the eight LTD events, three Ladies' Nights, two Inspirational Speakers, a LAN party, a First Year Workshop, and a Thanksgiving potluck. Over the year there were 235 attendees and each event had positive reviews.

At the First Year Workshop, students found it extremely helpful to get advice and feedback from experienced peers about choosing their engineering department, academics, co-operative work terms, and engineering student life. Instead of a structured lecture, the workshop turned out to be very casual and intimate with participation from all the first years.

The LAN party was run in conjunction with by CSCU (Computer Science Course Union) to promote the togetherness of computer science and engineering students with a night of gaming. Computer science is a separate department not under the umbrella of the Faculty of Engineering, and the students do not often meet. The evening consisted of 3 labs packed full of students playing different games for 2 hours. During the last hour, engineering and CSC split into 2 different teams to battle it out in "Savage".

The Ladies' Nights allow all the women engineering students to meet, ranging from 1st to 4th year. One event had a chocolate fountain potluck with everyone bringing fruit and cookies to dip in the chocolate. This was followed by a dance class led by a fellow CSC student. This event was held early in the semester so students had a chance to meet one another and start to form friendships.



### ORGANIZATIONAL SUMMARY:

Let's Talk Science at the University of British Columbia strives to engage young people with hands-on/mind-on activities as a way to improve their understanding and appreciation of physical and life sciences, mathematics, engineering and technology. Founded in 1997, they improve STEM literacy through the outreach efforts of members of the graduate student research community at UBC.

Let's Talk Science uses creative methods to inspire young people, including those in underserved communities. They provide effective mentoring networks, and give youth the opportunity to learn about science by actually doing science activities themselves, and imagine themselves as scientists.

Many young people, especially women, perceive science as an exclusive, male-dominated field and may not consider it as a viable career choice. Let's Talk Science counters this through visits from young women science mentors who can challenge stereotypes and open participants to new career possibilities. They also support class projects including those for Science Fairs.

Let's Talk Science's outreach work includes:

- Hands-on activities in classrooms such as making rockets, Rube Goldberg machines, slime, and magnetism workshops;
- Bringing students to the UBC campus for special events such as StemCellTalks, the Let's Talk Science Challenge, and lab tours;
- Rural trips in partnership with Genome BC, delivering genetics themed events to schools throughout British Columbia and the Yukon area;
- Inner-city outreach in partnership with the UBC Centre for Community Based Learning, providing outreach activities in schools across Vancouver's Downtown Eastside, one of the lowest income areas in Canada.

The impact of UBC Let's Talk Science's activities goes beyond the engagement and visits of "real scientists" because they also develop effective activities that teachers may adapt and use in their classes.

For more information visit [www.ubclts.com](http://www.ubclts.com)



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## PROJECT SUMMARY:

### TEACHER PARTNERSHIP PROGRAM

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WWEST PARTNER FOR: 2014-15

GRANT VALUE: \$500

The Teacher Partnership Program aims to raise awareness and inspire young girls in elementary school to talk and think about science through hands-on activities and classroom visits. In 2015 the program expanded its reach to high school girls; encouraging them to consider studying science at the post-secondary level, and think about careers in science. The program pairs a woman graduate student with a classroom in the Metro Vancouver area to act as a mentor and lead the class in an activity. In 2015, 103 volunteers visited 85 classrooms from K-12, reaching approximately 2600 young people with still more visits scheduled for the remainder of the school year.

*"This program is excellent. I believe that we should have more programs that bridge the elementary school with post-secondary. It gives students a look into what they can do to give back and also gives them ideas around what they could study in the future"* - Katherine Han, Gr. 7 teacher

By sending in primarily young, women volunteers the initiative challenged the stereotypic image many young people have about what type of people become scientists, and provided a role model demonstrating that they too can pursue a life in science. They showed students that science can happen in a lab, in a classroom, or in a rainforest, and that anyone can be a scientist – including the students themselves.



*"The most enjoyable part for the students was making the ecosystems. They loved getting their hands on rocks to funnel them into the bottles and inserting the squishy plants. It was fun for them to transfer the delicate snails and shrimp from the bags to bottles and spoon in the mud. They were delighted to create these "mini worlds" with live creatures",*

Jacqueline Bruce, Grade 3 teacher

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### ORGANIZATIONAL SUMMARY:

Let's Talk Science is an award-winning, national, charitable, science outreach organization. Let's Talk Science creates and delivers hands-on, minds-on science and, unique to UVic, social science learning programs and services that turn children and youth on to science and social science, keep them engaged in learning and develop their potential to become 21<sup>st</sup> century citizens, innovators and stewards. Their focus is particularly geared towards STEM research in youth, and one of their goals is to increase the number of girls who pursue a career in these areas.

Let's Talk Science operates out of 41 different universities and colleges across Canada, with outreach sites at Simon Fraser University, The University of British Columbia and the University of Victoria in the province of British Columbia

Let's Talk Science at the University of Victoria has been delivering free hands-on activities to youth in Victoria and throughout British Columbia since 1995. Let's Talk Science Outreach at the University of Victoria has reached thousands of students in the past 19 years. In the 2013-14 year 4050 students were reached in the Greater Victoria area.

The University of Victoria has a special relationship with a private all-girls school, St. Margaret's. Last year, as well as conducting classroom visits, visiting their summer camps and inviting the girls to attend various symposiums on campus, Let's Talk Science also organized the first annual "Girls in Science Careers Day" for the Grade 10 and 11 students at the school.

For more information visit [www.outreach.letstalkscience.ca/uvic](http://www.outreach.letstalkscience.ca/uvic)

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## PROJECT SUMMARY:

### GIRLS IN SCIENCE CAREER DAY

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WVEST PARTNER FOR: 2014-15  
GRANT VALUE: \$1,000

Let's Talk Science University of Victoria hosted its annual 'Girls in Science Career Day' on April 23, 2015, attended by 80 young women in grades 10 and 11 from around Vancouver Island. Some students came from the Cowichan Valley, Chemainus, and Comox Valley. The aim of the career day was to expose upper level high school students to ideas for future careers and to some of the fields of science and social science that they may not be familiar with.



Women scientists and social scientists from the University of Victoria were invited to give 10-minute presentations on their career paths. Participants were then divided into groups for touring the campus, including the UVic telescope, the undergraduate biology laboratories, and a session with a panel of undergraduate and graduate students. Throughout the day the students met various female faculty members from different areas of science and social science including biology, neuroscience, engineering, computer science, chemistry, math, psychology and anthropology.

In addition to the 'Girls in Science Career Day', Let's Talk Science provided further mentorship opportunities for young woman wanting advice regarding their choices at university and their future careers. By giving young women access to these opportunities, Let's Talk Science has aimed to remove the stigma that surrounds women in science and ensure a safe and inviting environment for them as they transition between high school and academia.

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## ORGANIZATIONAL SUMMARY



MOSAIC is a multilingual, not-for-profit organization with more than 38 years of experience building the capacity of immigrants, refugees and newcomers to become fully participating members of Canadian Society.

MOSAIC provides a broad range of specialized services for newcomers and their families, spanning infancy to old age, from nine service Hubs across Metro Vancouver. On average, the organization serves 7,000 clients per month. Its contracts range in value from a few thousand dollars to the largest agreement, the Employment Program of BC, valued at \$5.2M/year.

With more than 45 staff working in the Employment Programs Department and a \$6M annual budget, MOSAIC is the largest immigrant serving organization providing employment services in British Columbia. MOSAIC is also a leader in the province in the development of online learning for immigrants studying English.

For more information visit [www.mosaicbc.com](http://www.mosaicbc.com)



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## PROJECT SUMMARY:

### ONLINE PRE-ARRIVAL SERVICES FOR WOMEN IN ENGINEERING

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WVEST PARTNER FOR: 2014-15

GRANT VALUE: \$5,000

In 2015, MOSIAC BC piloted a series of facilitated online workshops for women engineers who have been approved to immigrate to Canada and plan on settling in British Columbia. This project designed several online learning modules to prepare women to qualify and work as engineers in Canada.

The modules were applied through facilitated workshops over a two week period in early March 2015. Eleven internationally-trained Women in Engineering who were approved to immigrate to Canada enrolled in the Pilot. They were from Iran, Turkey, and Egypt and were educated in computer, civil, electrical, hydro-electrical, environmental, and chemical engineering.

The learning objectives of the program included:

- Learners will identify steps necessary to apply for licensure in Canada, including necessary documentation
- Learners will identify the challenges they will face in Canada
- Learners will access key organizations that are relevant to licensure and working as engineers in Canada
- Learners will access key organizations that are relevant to licensure and working as engineers in Canada
- Learners will articulate the difference in professional requirements between BC and their home country
- Learners will be able to describe the difference between the status of women in engineering in their home country and in Canada
- Learners will describe realistic expectations of what they will experience in Canada

Participants were very positive about the outcomes of the session, suggesting they were now competent in understanding the challenges they will face in Canada, the variance in professional requirements between their home countries and Canada, licensure differences as well as the status of women in engineering.

In the post pilot survey, 100% of respondents indicated that they know how the Canadian engineering profession is regulated (vs. 50% pre pilot).



“I liked the workshop because I noticed that I’m not alone and my feeling is common with another women engineers” – course participant

### ORGANIZATIONAL SUMMARY



(As organization presently exists):

Previously known as the National Conference on Women in Engineering (NCWIE), the Conference on Diversity in Engineering (CDE) aims to develop knowledge surrounding the variety of individuals, cultures and perspectives found within engineering communities.

Organized by the Canadian Federation of Engineering Students (CFES), CDE further aims to instill a notion of positivity and togetherness in creating spaces that value the differences between groups of engineering students and professionals. The purpose is for guests to not only leave with a solid understanding of the issues minorities encounter in the engineering profession, but also be equipped to appropriately address these issues to create a more inclusive and thriving community.

Students attending CDE will have the opportunity to meet and hear from successful, interesting, and talented speakers prepared to share their experience and knowledge on how to embrace diversity in order to better address the complex, interdisciplinary problems of society. The mission of the CDE is to support growth and communication, and to ensure moral, intellectual, cultural, academic, social, and economic well-being for its members.

CDE supports their mission by creating networking opportunities and providing a better understanding of the issues pertaining to diversity in engineering, all while inspiring leadership and active participation in all facets of engineering education.

For more information visit [www.cfes.ca/events-and-services/cde](http://www.cfes.ca/events-and-services/cde)

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## PROJECT SUMMARY:

### NATIONAL CONFERENCE ON WOMEN IN ENGINEERING 2013

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WWEST PARTNER FOR: 2013

GRANT VALUE: IN KIND

The National Conference on Women in engineering (NCWiE) is a Canada's only student conference organized by students on diversity.

From November 22-24, 2013, delegates gathered in Vancouver, BC to continue the conversation on women in engineering. The theme for the event was, "Add Your Piece to the Puzzle". The objectives of the conference were:

- Start a conversations: put diversity on the table in student government
- Increase awareness of the importance of diversity in engineering
- Encourage the retention of women in engineering

These were delivered through providing participant with tangible takeaways (templates and delegate packages), safe spaces for discussion, tools for difficult conversations, guided learning, presenting diversity from a holistic perspective – not just women, and sharing proven practices for women in engineering groups.

Delegates from over 30 universities were in attendance to discuss a broad range of topics on five streams: diversity, careers, outreach, conversation and inspiration. Workshops offered included:

- Anti-Discrimination Responses
- Building effective outreach programs
- Diversity in the workplace
- The value of diversity
- Active witnessing

The conference attendees were 87% women over the course of the 3 days and came from all across Canada. The conference was evaluated using instruments on self-efficacy and the awareness of the benefits of gender diversity. In the short term, the conference resulted in a statistically significant increase in both measures, and in the long term resulted in a statistically significant increase in awareness of gender diversity.



## PACIFIC INSTITUTE FOR THE MATHEMATICAL SCIENCES 2014 YOUNG RESEARCHERS CONFERENCE IN MATHEMATICS AND STATISTICS

### ORGANIZATIONAL SUMMARY:

The Pacific Institute for the Mathematical Sciences (PIMS) Young Researchers Conference in Mathematics and Statistics (YRC) is a PIMS-sponsored, graduate-student-organized conference providing young researchers in the 12 PIMS universities to network and exchange scientific research in a student conference setting. The conference typically attracts 100-140 participants, and focuses on technical skills development for academia.

PIMS was created in 1996, with a mandate to:

- Promote research in and applications of mathematical sciences;
- Encourage the training of highly qualified personnel (such as graduate students);
- Increase public awareness of, and education in, the mathematical sciences;
- Encourage collaborations and partnerships.

The goals of the YRC include:

- Provide a forum to present graduate student research;
- Provide opportunities for networking and collaboration;
- Development of communication skills;
- Provide experience in the environment of a scientific conference.



The responsibility of organizing the YRC is rotated between member universities:

- University of Alberta
- University of British Columbia
- University of Calgary
- University of Lethbridge
- University of Manitoba
- University of Regina
- University of Saskatchewan
- Simon Fraser University
- University of Victoria
- University of Washington

The 2014 YRC was hosted by UBC from June 2 – June 5. The organizers of the conference chose to add an additional goal – to address gender diversity and equity in the mathematical sciences.

For more information visit [www.pims.math.ca](http://www.pims.math.ca)

## PROJECT SUMMARY:

### PIMS YOUNG RESEARCHERS CONFERENCE GENDER EQUITY PROGRAMMING

WVEST PARTNER FOR: 2014

GRANT VALUE: \$2,700

The 2014 PIMS YRC included, for the first time, gender equity programming in the conference. The primary objective of the program was to increase the awareness of gender equality in academia in young mathematicians in academia. Efforts were made to ensure that the activities were seamlessly integrated into the day, and were inclusive of both genders.

The intervention consisted of two different interventions:

- Breakfast-time information sessions
- Panel discussion

The breakfast-time information session sought to provide hard facts and figures on women's career in academia, based on the findings in *The Gender Dimension*. Excerpts from *The Gender Dimension* were distributed to provide students a fact-based entry point to understanding gender issues in academia.

The panel discussion was designed to provide alternate, personal viewpoints on gender equality of three high-profile female mathematicians. In the panel discussion, students asked many excellent questions relating to their own experiences and the facts provided in the breakfast-time information session. This allowed students to further their understanding and personal stance of gender equity directly on a personal level.

The program took place in Vancouver, B.C., with 65 registered participants (~90% male, 10% female) from the following universities: SFU, UVic, UBC, Lethbridge, U of A, McGill, UCalgary, UBC Okanagan, URegina, Harvard, University of Sao Paulo, Concordia, and Waterloo.

Our activities had successfully increased the awareness of gender gaps in academia in our participants. 33/37 survey respondents indicated that they learned new facts from the excerpts of *The Gender Dimension* presented in the daily breakfast-time information sessions. 13/33 respondents indicated increased interest in the subject of gender equality, while 18/33 indicated no change in interest and 2/33 indicated decreased interest. The majority of respondents (25/37) also agreed that the facts shown indicate an issue that needs to be addressed.



Graduate students review facts on women's careers in academia during a breakfast information session

*68% of responding participants agreed that the facts on gender gaps in academia show indicates that there is an issue that needs to be addressed.*

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ORGANIZATIONAL SUMMARY:

ANITA BORG INSTITUTE  
**GRACE HOPPER**  
CELEBRATION OF WOMEN IN COMPUTING

Co-founded by Dr. Anita Borg and Dr. Telle Whitney in 1994 and inspired by the legacy of Admiral Grace Murray Hopper, Anita Borg Institute's Grace Hopper Celebration (GHC) of Women In Computing Conference is designed to bring the research and career interests of women in computing to the forefront.

For 13 years, the conference has brought together the community of women technologists, the best minds in computing and increased visibility for the contributions of women to computing. The conference is co-presented by the Association of Computing Machinery (ACM).

The conference results in collaborative proposals, networking and mentoring for our attendees. Conference presenters are leaders in their respective fields, representing industry, academia and government. The conference also offers professional development through a variety of activities.

The conference runs several affiliated regional conferences across the world, including the Pacific Northwest region.

For more information visit [www.gracehopper.org](http://www.gracehopper.org)



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## PROJECT SUMMARY:

### PACIFIC NORTHWEST CELEBRATION OF WOMEN IN COMPUTING CONFERENCE 2014

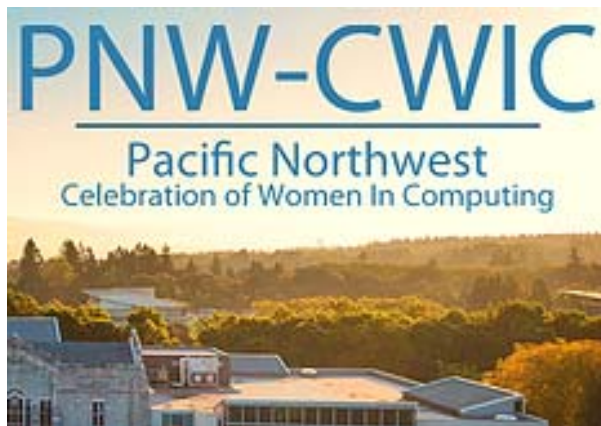
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WWEST PARTNER FOR: 2014  
GRANT VALUE: \$3,000

On May 9 - 10, 2014, the Pacific Northwest Celebration of Women in Computing Conference brought together over 100 women in Computer Science from the Pacific Northwest region onto UBC's Vancouver campus for two days of professional development, networking and inspirational activities. Students got a chance to hear from, interact with, and be mentored by industry professionals, researchers and faculty members.

The theme for the year was passion and purpose. Passion draws from within; rooted in our talents, interests and identities, while purpose connects us outwards, enabling us to support others, build community, and make a positive difference in our world. The conference brought together women leaders and future leaders in computing from the Pacific Northwest for inspiration, support and practical guidance in pursuing meaningful and satisfying careers.

The conference included social events including a Speed Mentoring Event, with 116 of the 130 delegates attending, an evening social activity for students, and a Dessert Party for mentors and invited guests. Keynote speakers included Maria Klawe (Harvey Mudd College), Brenda Bailey Greshkovitch (Silicon Sisters Interactive), and Nicki Dell (PhD Candidate, University of Washington).



*"All the keynotes were fantastic, the panels were great (especially the first one), all the events were great. I guess what I liked most was being surrounded by and talking to inspiring women in comp sci. I left feeling extremely inspired and motivated to do great things in the field."*



### ORGANIZATIONAL SUMMARY:

Science Adventures (SA), part of the Yukon Research Centre at Yukon College, engages students, teachers and the community in the exploration of science and technology. SA provides support and resources to teachers and coordinates hallmark events and activities, such as the Yukon/Stikine Regional Science Fair, the Annual Bridge Building Competition, Stay-A-Day at Yukon College and the All-Girls Science Club. Since 1992, SA has been providing support to teachers, volunteers and parents to promote the fun of science and technology to students. These outreach services include access to science speakers, learning resources, community connections, special events, and field trips. SA receives funding from Yukon Department of Education, NSERC PromoScience, Yukon Research Centre and Actua.

SA has operated five successful All-Girls Science Club seasons and is committed to establishing a permanent program to which girls can look forward each year. SA has the capacity to hold program records, evaluation results, lessons learned and ideas for future years. As well, ongoing staffing will be provided through the SA Assistant, with support from the SA Coordinator, both secure positions.



Being housed at (but not funded by) Yukon College provides ready access to well-equipped classrooms and laboratory facilities, library and professional resource people. SA maintains numerous classroom science kits and resource materials, plus an extensive list of science contacts, including school teachers and principals, government employees, research agencies, private businesses, professional organizations and individuals willing to support youth science education initiatives.

For more information visit [http://yukoncollege.yk.ca/research/pages/science\\_adventures](http://yukoncollege.yk.ca/research/pages/science_adventures)

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## PROJECT SUMMARY:

### ALL GIRLS SCIENCE CLUB

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WVEST PARTNER FOR: 2012-14

GRANT VALUE: \$6,000

The All-Girls Science Club engaged girls in grade 5-7 to explore new concepts, conduct hands-on experiments, ask questions and express their ideas in a non-intimidating, girls-only environment.

The program is unique to the Yukon region and provides the opportunity to explore exciting concepts, conduct experiments, develop career ideas and ask questions in a non-intimidating, girls-only environment.



Twenty girls joined the 2013 Club that met on eight Saturdays from March to June. The theme was “Science of Earth and Space” and the activity topics included:

- Solar system
- Hydrology
- Geology
- Surveying technology
- Robotics
- Geocaching
- Careers in science

One program highlight was the Skype chat with Canadian Space Agency astronaut David Saint-Jacques.

In addition to this, the All-Girls Science Club did an outreach event Haines Junction, 150km away from Whitehorse, on May 9<sup>th</sup>, 2015 in conjunction with the local school, Yukon College campus and Champagne and Aishihik First Nations. The curriculum from the current All-Girls Science club was used. Parents were invited to attend the last 30 minutes of the event where they were given resources for encouraging their daughters’ interest in STEM.

Three science kits are being developed for teachers or mentors to continue the exploration of science with girls. One will be left at St. Elias Community School in Haines Junction, one will be a gift to Teslin Community School in Teslin (180km from Whitehorse), and the third will be available on loan to twelve other schools in outlying Yukon communities.

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## PROJECT SUMMARY:

### ALL GIRLS SCIENCE CLUB STRATEGIC EXTENSION

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WVEST PARTNER FOR: 2014-15

GRANT VALUE: \$1,000

Science Adventures has operated five successful All-Girls Science Club seasons in Whitehorse and is committed to establishing a permanent program to which inquisitive girls can look forward each year, both in Whitehorse and outlying communities.

In 2015 the All-Girls Science Club corporate sponsorship program launched. This program will inform potential donors about the importance of supporting Yukon girls to pursue STEM education and careers. Working closely with Yukon College's new Advancement Office from November 2014 to March 2015, Science Adventures explored gifting options and created promotional material for potential sponsors. In preliminary discussions, the Advancement Office agreed to take on the All-Girls Science Club as one of its inaugural projects.



A presentation was also made to the Yukon College Board of Directors on June 5<sup>th</sup>, 2015 to highlight Science Adventures' youth science outreach programs and initiate discussions about new projects that would further support the directions they see for the college.

Finally, Science Adventures created an internal youth focus group at Yukon College and chaired three meetings. Participants included staff from Science Adventures, Community Relations, Continuing Education, Enrolment Services, Social Justice and Trade. The group created an informal inventory of current and planned youth-centered activities. Terms of reference are being developed.

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## PROJECT SUMMARY:

### GO SCI-TECH GIRL

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WWEST PARTNER FOR: 2014-15

GRANT VALUE: \$5,000

On May 20<sup>th</sup> 2015, Science Adventures organized the first Sci-Tech Girl event at Yukon College in Whitehorse. The program is designed for grade 10-12 and first-year post-secondary women students to meet science role models in a professional and social environment. The inaugural event attracted 10 participants, and created a small group environment where they connected with role models in STEM sectors in the Yukon. As one participant put it, *"I got to listen to women talk passionately about their jobs in science."* It was featured on CBC Radio prior to the event.



The event began with a keynote address delivered by Jodi Gustafson, an Environmental Consultant, entitled *"A Woman's Place is in Science."* This was followed by a series of workshops, hosted by the mentors, and was a chance for the students to ask questions about their career paths. These sessions lasted approximately 2 hours.

*"I believe the presenters set positive examples of the various routes one can take to get into science and technology and successfully demonstrated how fulfilling a career in science or tech can be. There is no doubt in my mind that the girls left feeling somewhat empowered."*

- Sci-Tech Girl Mentor

#### Mentors and topics included:

Dr. Katherine Stewart (Researcher, Yukon Research Centre) - *"Taking a lichen to science"*

Karolina Machalek (Epidemiologist, Community Health Programs, YG Health & Social Services) - *"Epidemiology: An interesting and rewarding career choice"*

Meghan Larivee (Animal Healthy Laboratory Coordinator, Fish & Wildlife Branch, YG Environment) - *"Healthy environment, healthy wildlife: Monitoring health in Yukon wildlife"*

Sandy Birrell (Engineer, Stantec Consulting Ltd) - *"A building's body"*

The event was very well received by all involved.

### ORGANIZATIONAL SUMMARY:



Science ALIVE is a student-run not-for-profit organization based at Simon Fraser University in Burnaby, BC. Since 1994 they have provided opportunities for young people to explore science beyond the textbook through hands-on, interactive discovery, stimulating their interest and fostering their curiosity and confidence. Through various programs, their purpose is to make science accessible to all children, regardless of gender, culture, or affluence.

The organization targets under-represented groups in science and makes programs available to all those interested. Reaching over 8,000 students across Metro Vancouver and North British Columbia each year, the program strongly believes in maintaining the quality and depth of impact of their summer camps and year-round weekend workshops, girls programming and other initiatives.

For more information visit [www.sciencealive.ca](http://www.sciencealive.ca)



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## PROJECT SUMMARY:

### GIRLS IN ACTION

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WVWEST PARTNER FOR: 2014-15

GRANT VALUE: \$500

For the past two years, Science ALIVE has partnered with Girls in Action, providing workshops to the city of Surrey. This year the program was expanded to provide a total of 22 workshops at four different locations in the city. Curriculum included computer science, hands-on technology use, scratch programming and circuit activities using the littleBits programming kit. Every workshop was taught by an undergraduate woman SFU student.

The littleBits kits are a system of electronic modules that snap together with magnets to create larger circuits. This kit is interactive and fun, providing the girls with an activity that really stimulates an interest in circuits, programming and computer science. The kits are lightweight and easily transportable, and were useful for other Science ALIVE programming.

Over the next few months the littleBits kits will be used in programming in five different communities in Northern BC, including Aboriginal outreach in Haida Gwaii. They will also be used in classroom workshops, community events, and outreach trips, reaching over 700 students during Science ALIVE's yearly BC science workshop tour. It will also be used in our ALIVE girls summer program and our girls only summer camps at SFU Burnaby.



### ORGANIZATIONAL SUMMARY:



Since 1991, Science Venture has been delivering hands-on, minds-on STEM learning opportunities for youth across Vancouver Island. Based at the University of Victoria (UVic), last year the team of 26 undergraduate instructors reached over 12,000 youth through in-school workshops, camps, clubs, and events. Central to the program is the undergraduate staff who bring the programs to life with their unwavering energy, passion, and drive. Not only do staff impact the lives of program participants, but they play an integral role in mentoring the high school volunteers. During the summer of 2014, 61 volunteers were trained and dedicated a minimum of two weeks as Junior Counsellors at camp. The volunteers learn from the instructors about the UVic student experience, they meet professors, and get behind the scenes access to University labs and research facilities.

Science Venture's mandate is to stimulate an awareness of and enthusiasm for science, engineering and technology among youth, particularly those from under-represented groups, such as female and Aboriginal learners. Science Venture strives to foster supportive and creative environments that nurture the self-esteem of participants and enable them to develop skills and attitudes to succeed in the future.

Their vision is to inspire all Vancouver Island youth to explore their potential and discover their vital role in the world through life changing science, engineering, and technology experiences.

For more information visit [www.scienceventure.ca](http://www.scienceventure.ca)



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## PROJECT SUMMARY:

### HOOKED ON STEM

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WWEST PARTNER FOR: 2014-15  
GRANT VALUE: \$500

On March 28, 2015 53 girls in grade 3-6 attend the first “Hooked on STEM” event at the University of Victoria (UVic). Participants were welcomed by SV Director, Melisa Yestrau, and then watched a chemistry show. Six female undergraduate Science Venture instructors acted as group leaders for the day. A career photo booth was set up that allowed the girls to “try on” STEM careers.

The girls were provided with a scavenger hunt passport where they sought answers from our ten women mentors and famous women in STEM posters. Mentor scavenger hunt representatives included: Ladies Learning Code, Victoria Chapter; BC Women In Technology & Science; UVic Leadership Through Diversity; and UVic Women In Engineering and Computer Science.



Workshops during the event included one on science & tech communication in the media with CTV Vancouver Island host Coralie McLean, where they filmed their very own news segments, and a computer science workshop which focused on Scratch programming, blogging, and building circuits using littleBits kits. The day ended with prize draws and treats!

The high-impact event managed to engage a larger number of girls in the Southern Vancouver Island region and complement Science Venture's well established year-round all-girls program. Forty-nine percent of participants responded that they were more likely to take science courses in high school after the event.

***“How would you describe the day in one word?”***

*Amazing • Good • Supercalifragilisticexpialidocious*

*Awesome • Great • Unbelievable*

*Cool • Interesting • Unexpected*

*Fun • Sciency • Wonderful*

ORGANIZATIONAL SUMMARY:



The Society for Canadian Women in Science in Technology (SCWIST) is a non-profit society operated by a volunteer board and three part-time staff. Established in 1981, SCWIST celebrates 30+ years of promoting, encouraging and empowering women and girls in science, engineering and technology.

The SCWIST Resource Centre supports the mission to promote, encourage and empower women and girls in science, engineering and technology. SCWIST also has two signature programs: ms infinity – a mentorship program for young girls – and Immigrating Women in Science and Technology (IWIS) – a program supporting immigrating professional women in science and technology. SCWIST is a member-based and volunteer-supported organization, with 177 active student and professional members, and 100+ volunteers. The Resource Centre is funded by the BC Government, including a part-time staff member who coordinates the Resource Centre. The coordinator ensures continuity and sustainability of programming offered by SCWIST, with support and guidance from the volunteer board.

The volunteer board is supported by several committees that contribute to the diverse areas of SCWIST. The current committees include: Events, Volunteers, Communications, Grants, Fundraising, and Programs. Each committee is comprised of talented women from diverse backgrounds both in science, engineering and technology, as well as external fields including business, marketing, and finance.

For more information visit [www.scwist.ca](http://www.scwist.ca)

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## PROJECT SUMMARY:

### SCWIST WORKSHOP SERIES

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WWEST PARTNER FOR: 2011-13

GRANT VALUE: \$3,825

Through WWEST funding, SCWIST provided annual workshop series between 2012 and 2014. Seven workshops were offered on the themes of personal branding, tools for transition, and marketing skills in a new country. All workshops were delivered by industry experts. These events were targeted towards students, recent graduates and professional women in science, engineering and technology.

The 2012 workshop series focused on personal branding. Topics included:

- Dress for Success
- How to Successfully Market Yourself Online
- The Whole Package: How to Present Yourself Well and Leave a Good Impression
- The Art of Negotiation

Participants were surveyed after the event and a typical result was that 88% had gained new knowledge/skills that would help them advance in their work or studies, and that 69% had expanded their professional or personal network.

The 2013 workshop “How to market you skills to a job in a new field in a new country” was targeted to immigrant professional women. The participants learned about Canadian success stories and how to market transferable skills. There was also the opportunity to network with the attendees, SCWIST members and the speaker.

The post-event survey revealed that 77% of participants were more familiar with showcasing their skills, 62% were more confident in applying for a job outside their area of expertise, and 100% were more comfortable with networking in a professional setting.

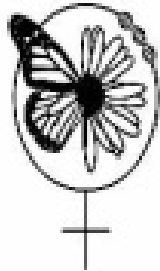
*“This workshop felt like it was personal. It encouraged us to dig deep and discuss honestly with others”*  
– 2014 Participant

The 2014 theme was “Tools for Transition and making life shaping decisions during times of change” and workshops were facilitated by Sally Halliday and staff from UBC Continuing Studies. Participants were exposed to practical models of change, as well as exercises to clarify participant values and identify transferrable skills.



## SYMPOSIUM FOR WOMEN ENTERING ECOLOGY AND EVOLUTION TODAY (SWEET)

### ORGANIZATIONAL SUMMARY:



## **SWEET**

### ***SYMPOSIUM FOR WOMEN ENTERING ECOLOGY AND EVOLUTION TODAY***

SWEET is a symposium intended to address issues that influence the advancement of women from postgraduate degrees into academic, government, NGO and industry positions from backgrounds in ecology and evolution.

The transition into a permanent job is a critical step that involves many challenges; many of these are particularly relevant to women who tend to be underrepresented in scientific careers. Although a forum exists in the US to discuss these issues (WEBS, funded by the US National Science Foundation), prior to SWEET, no such forum existed in Canada. In partnership with the Canadian Society for Ecology and Evolution (CSEE), SWEET has offered the symposium since 2008.

The goals of SWEET are to:

- Increase awareness of, and engage in a broad dialogue about, the challenges women face in the modern scientific workforce
- Facilitate networking for student/early-career scientists with established scientists from universities, government, and industry
- Share individual and institutional strategies to increase the representation, retention, and career success of women scientists

For more information visit <http://www.sweetecoevo.weebly.com/>

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## PROJECT SUMMARY:

### SYMPOSIUM FOR WOMEN ENTERING ECOLOGY AND EVOLUTION TODAY (SWEET) 2013 CONFERENCE

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WWEEST PARTNER FOR: 2013  
GRANT VALUE: \$1,000

The 2013 theme was “Shedding Light on Subtle Gender Biases in Science: Awareness, Challenges, and Solutions” inspired by a 2012 paper by Moss-Racusin et al. in the *Proceedings of the National Academy of Sciences* (PNAS). The 50 participants included tenured and non-tenured professors, post-doctoral researchers, graduate and undergraduate students, government scientists and university administrators. Organizers of the event represented institutions across the country, from the University of British Columbia’s Okanagan campus to University of Ottawa to McGill University.



Four panelists presented their perspectives on subtle gender biases in science, and offered practical advice and solutions on how to overcome this hidden obstacle in women’s career advancement. Speaker presentations were followed by lively discussions in both small and large groups. These discussions highlighted issues ranging from the challenges of shifting the culture of subtle gender biases in scientific departments, to tips on negotiating during the job interview process. A key outcome was the recognition of mentorship as a crucial component for young women at the early stages of their career, and during the transitions between graduate student, postdoc, and faculty member.



Responses to the question of whether SWEET 2013 was useful to career development included:  
“Yes, it is encouraging to hear the experiences and tips from women in science today,” and “Absolutely, because I am now more aware of strategies to deal with gender biases.”



## UBC ADVANCED MOLECULAR BIOLOGY LABORATORY (AMBL)

### ORGANIZATIONAL SUMMARY:

UBC's Advanced Molecular Biology Laboratory (AMBL) is a fully equipped research space dedicated to the development, delivery, and research of projects that provide experiences in the realms of science literacy, science communication, and science education.

In all, many of AMBL's programs centre on a mandate to train scientists (university students, faculty, and industry professionals) and to inform the public at large on the societal, cultural, economic, political, and ethical nuances of the sciences. As well, AMBL has made a name for itself by often using creative and unconventional avenues of science communication and education, particularly where the intersection of science and other disciplines is explored.

AMBL hosts a diverse range of programs ranging from authentic research field trip programs, provision of publication outlets for creative science writing, as well as projects that engage in the interdisciplinary intersections between science and other disciplines.

For more information visit [www.bioteach.ubc.ca](http://www.bioteach.ubc.ca)



## PROJECT SUMMARY:

### WOMEN IN SCIENCE AND ENGINEERING TRADING CARD GAME:

A K-12 TEACHER RESOURCE THAT EXPLORES AND PROMOTES THE INTERSECTION OF STEM AND FEMINISM

WWEST PARTNER FOR: 2014-15  
GRANT VALUE: \$3,000

AMBL has been working on the development and production of a playable card game that is designed to embed a variety of important learning objectives about women in science and engineering.

The cards are designed to showcase a variety of scientists and engineers from different disciplines, different periods of history, as well as different ethnic backgrounds. Furthermore, the game highlights a range of societal challenges that relate to historical and contemporary gender issues. The goal is for students who want to pursue careers in STEM to be informed and inspired by these women and will follow their lead in being ground breakers in their own careers.

The ultimate goal is to produce a game that is both educational and fun to play. The WISE game project benefited from using pre-existing game mechanics that were previously developed and playtested in the Michael Smith Laboratories (see [phylogame.org](http://phylogame.org) for more information). Modifications to this structure include:

- To learn about various women in science and engineering and gain an appreciation of them
- To learn about challenges that women in science face
- To create a resource that enables discussion and fosters the development of lesson plans that potentially work toward solutions for these challenges in the future.

AMBL are currently continuing to develop the game further and are working on expansion packs for the game. In April 2015, a beta version was tested with 75 high school students. Preliminary feedback included that the game was fun to play (scoring approximately 4 on a scale of 5), and the students were pleased with the overall content in terms of gender issue coverage, and most felt that the game had good potential value as a classroom teaching resource.

This project will continue past WWEST funding, with support from the Michael Smith Labs. AMBL is also committed to funding high quality art once the finalized deck is finished. A final starter deck is hoped to be made available in the first half of 2016.





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ORGANIZATIONAL COLLABORATION SUMMARY:

See page 68 for AMBL organizational summary.

See page 28 for Geering Up organizational summary.

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## PROJECT SUMMARY:

### GIRLS ONLY MAKER CAMP

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WVEST PARTNER FOR: 2014-15

GRANT VALUE: \$2,500

The Girls-Only Maker Camp – held between August 10 and 14<sup>th</sup>, 2015 - gave 23 girls the opportunity to explore a Do-It-Yourself (DIY) style of STEM. The project was a collaboration between Geering Up and AMBL, which took advantage of resources and enthusiasm that MAKER MEDIA provides during its annual Maker Camps.

The camp supported girls between the ages of 10-14 by boosting their confidence in a safe, secure and supportive space. Activities in the 2015 Maker Camp included electronics, robotics, programming, mechanical/civil engineering, as well as more craft oriented exercises. To view the syllabus and record of each day please visit <http://makercamp2015.blogspot.ca/>



Five 13-14 year old girls who attended AMBL's Maker Camp last year acted as volunteers throughout the program. There were two main instructors for the camp from Geering Up, and several guest speakers were invited throughout the week. AMBL is committed to continuing the Girls Only Maker Camp annually.

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ORGANIZATIONAL SUMMARY:



Faculty members in the UBC Department of Physics & Astronomy have organized outreach activities for several decades. In 1995, the Outreach Program was organized as a separate entity within the Department, with a purpose to communicate to the community at large the excitement and wonder of physics and astronomy.

Today, the Outreach Program runs many events throughout the year including national science competitions, summer camps, public science shows, teacher's professional development workshops, public lectures, and develops online resources for teachers. It also publishes the outreach program newsletter, currently with more than 300 subscribers.

Their goal is to communicate the excitement and wonder of physics and astronomy, and its relevance to global issues and our everyday lives.

For more information visit <http://outreach.phas.ubc.ca/>

## PROJECT SUMMARY:

### FASTER, HIGHER, SMARTER! WORKSHOPS

WVest PARTNER FOR: 2011-14

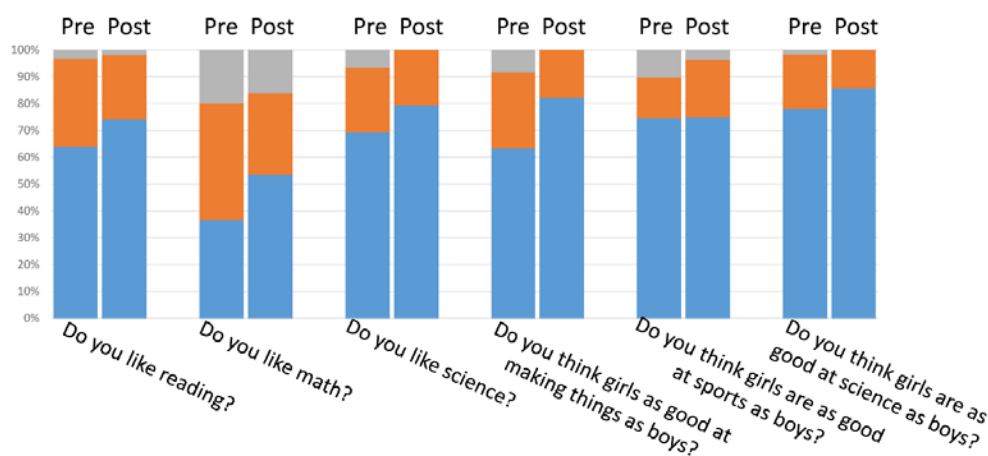
GRANT VALUE: \$5,975

UBC currently has an enrollment of 15-22% women in Engineering Physics and Physics and Astronomy programs. The original intention of this project was to focus on girls in Grades 6-8. After the first year of workshops in 2012, the activities were redeveloped for a younger audience as they found there was a strong demand for physics and engineering-related activities for audiences like Girl Guide Brownie groups. All workshops were run by UBC undergraduate students, staff and faculty.

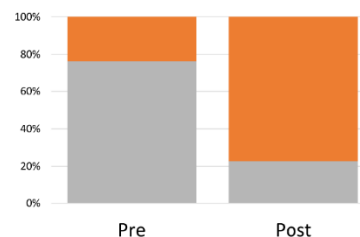


The initial workshop – Faster, Higher, Stronger! – was a free one-day event focused on understanding how people move can improve sports performance. Eighteen Grade 6-8 girls were engaged in real world scenarios (sports) without emphasizing that the workshop was about physics. This was successfully achieved for most students. Activities focused on principles behind running and swimming, making timing gates, and taking photos of batting and swinging to improve performance. A pre/post survey demonstrated that the workshop had a positive impact on students that participants, and most students showed an improved attitude and understanding of STEM fields.

Following a year of workshop redesigns, a second wave of programming was offered in 2014. The Girl Guides Brownie workshops included a wind turbine activity which lasted 3 hours. This was completed over two sessions, one week apart. The four Brownie Group visits were evaluated with a pre/post survey with questions on the participants' interest in science and perception of gender differences in STEM fields. Overall 60 pre-surveys and 56 post surveys were completed, with the percentage of children responding Yes is shown in blue on the graph below, maybe/sometimes shown in orange, and no in gray.



Children were also asked what they thought a physicist does. "I don't know" responses are demonstrated in gray, while other responses are shown in orange.



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ORGANIZATIONAL SUMMARY:



Since its creation in 2004, GIRLsmarts has been volunteer run. UBC Computer Science students work one-on-one with grade school girls to explore a variety of aspects of technology, from programming to user interfaces. Three student coordinators oversee the logistics of the workshops. Volunteers organize two Grade 6 workshops throughout the year, with an additional Grade 7 workshop premiering in 2013. Registration for students in underprivileged regions in Vancouver opens two weeks before it opens to the rest of Metro Vancouver to increase the program's accessibility.

"Given the fantastic opportunities in computing, as well as the impact that computer technologies have in our world, it's important that girls as well as boys explore and pursue their interests in the field," says Anne Condon, head of UBC's department of Computer Science. "GIRLsmarts volunteers are great role models who help dispel negative myths about computing that might deter girls, and provide a great hands-on experience for participants."

Recently GIRLsmarts has rebranded to GIRLsmarts4tech.

For more information visit <http://www.cs.ubc.ca/girlsmarts4tech/>

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## PROJECT SUMMARY:

### GIRLSMARTS COMPUTER SCIENCE WORKSHOPS

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WVEST PARTNER FOR: 2011-13

GRANT VALUE: \$4,500

The GIRLsmarts program was designed to foster a curiosity and interest in Computer Science for girls in Grades 6 and 7. The goal of the program is to create a positive experience related to Computer Science and technology for participants by engaging them in fun and educational activities. Workshop activities included creating a website using HTML, designing an iPad application, programming LEGO Mindstorms robots, and programming a game using Microsoft Kodu.



Before 2012 the workshops were held on campus and most participants attended from the local area. In 2012 the first off-campus half-day workshop was held for students from East-side Vancouver schools. Working with the UBC Learning Exchange, Surrey School District, and the Aboriginal Child and Family Support Service with Vancouver Native Health, there were two half-day off-campus workshops in 2013, with a total of 34 participants.

*"I liked how much new and cool stuff I learned and all the new things we got to try, I want to download the programs at home!"*

- GIRLsmarts Participant

At the end of each workshop, participants were asked to fill in a feedback form about how much fun they had, and how much they learned - ranking each activity on a scale of 1 to 5 (with 5 being the best). In 2013, the average score for each activity was 4 or higher. The feedback from parents was also very positive, with many asking if similar workshops or summer camps would be offered by UBC in the future, if workshops could be held for longer periods of time at schools, and if there are similar workshops for boys.

GIRLsmarts 2013 had over 150 participants and was run with the generous help of 46 student volunteers. Recommendations based on the new Eastside Vancouver workshops were compiled for future years.

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ORGANIZATIONAL SUMMARY:



The mission of the Women in Science and Engineering (WiSE) Mentoring Program is to support the success of young women transitioning from their undergraduate education to a career in science or engineering, and to prepare and mentor them to remain in scientific careers.

Originally started as a workshop series in 2006, the Mentoring Program began in spring of 2011 at the University of British Columbia's Okanagan Campus. The formal program launched in September 2011, and has continued each academic year since.

The WiSE program continues to be scientifically evaluated in terms of its usefulness through a longitudinal study that examines how the formal mentoring program contributes to young women's academic success and their transition into professional careers or graduate studies.

For more information visit [www.wise.ok.ubc.ca](http://www.wise.ok.ubc.ca)



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## PROJECT SUMMARY:

### WOMEN IN SCIENCE & ENGINEERING WORKSHOPS

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WWEST PARTNER FOR: 2011-13

GRANT VALUE: \$3,500

The women in science and engineering workshops are open to all women students in Science and Engineering at the University of British Columbia's Okanagan campus. It is not a requirement for participants to be a part of the mentoring program to attend.

At the workshops, women from a variety of science and engineering professions address career topics, share their career paths, and answer questions from the undergraduate and graduate student audience. The workshops included dinner, a panel discussion, as well as time for informal networking for all the participants.



Feedback from students showed that many of them were unaware of issues such as salary differential, the need for negotiation, workplace demands unique to women, and the likelihood of career path changes.

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## PROJECT SUMMARY:

### WOMEN IN SCIENCE & ENGINEERING (WISE) MENTORING PROGRAM

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WWEST PARTNER FOR: 2011-13

GRANT VALUE: \$4,500

The UBCO WISE Mentoring Program was launched in September 2011. This program provides longer-term connections between students and professional women, with approximately six events from September to April each academic year. The events typically include information sessions, orientations, a mentor-mentee introduction session, a professional development event and an end-of-year celebration.

Over the three years of WWEST funding, the program served 86 science student mentees, 35 science mentors, 26 engineering mentees, and 18 engineer mentors. Overall the Mentoring Program made a positive impression on both mentors and mentees, with both groups happy with their mentorship pairings.

Overall, the WISE Mentoring Program made a positive impression on both mentors and mentees.

Most students said that they did not have to overcome any challenges during the WISE program.

Mentors and mentees were happy with their match-ups, which contributed to their overall positive experience. All student mentees said the WISE Mentoring program was a rewarding experience to them academically and personally. There were three areas that mentees would like to see improved in the future: more communication with their mentors; an additional social event to engage with other mentees and mentors in November (more face to face interaction); and more flexible meeting times for workshops and events throughout the year.



The most common accomplishments indicated by mentees included:

- Gaining information about their profession through engaging in general discussions with their mentor and by meeting with their mentor at her workplace
- Receiving advice in career planning by receiving helpful interview tips from their mentor
- Engaging in informational interviews, and receiving constructive feedback of their resume/cover letter from their mentor
- Learning about issues faced specifically by women in their professions

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## PROJECT SUMMARY:

### WOMEN IN SCIENCE AND ENGINEERING MENTORING PROGRAM IMPACT MEASUREMENT

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WWEST PARTNER FOR: 2013-14  
GRANT VALUE: \$2,000

The Women in Science and Engineering Mentoring Program at UBC's Okanagan Campus is currently being evaluated through a longitudinal research study. Unique to this mentoring program is the perspective longitudinal study that explicitly examines how a formal mentoring program contributes to young women's academic success and their transition into professional careers or graduate study. The objectives of this study are:



- To gain insight into the mentoring program by identifying the activities and outcomes of the program
- To assess the impacts of the program by identifying the successes and areas for growth
- To understand how the program affects participants in terms of their immediate and long-term academic and career goals

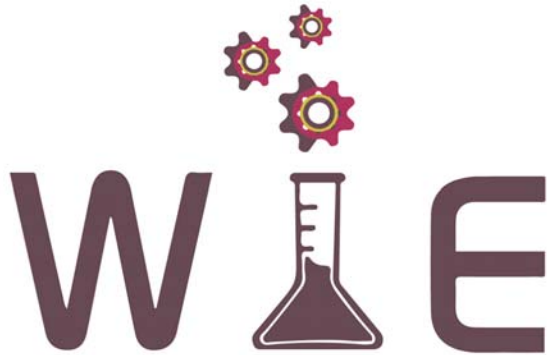
These objectives are assessed through pre/post program questionnaires administered to mentees and mentors, analysing feedback from mid-program focus groups for mentees and mid-program interviews with mentors, and examining the post-event reflection exercises completed by mentees. This research is approved by UBC's Research Ethics Committee annually.

The funds from the WWEST Impact Measurement grant were used to hire two students to adapt two of the Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics (Integrative Learning, and Civic Engagement), developed by the Association of American Colleges and Universities.

Data analysis is currently underway, and preliminary findings have demonstrated the benefits of using VALUE rubrics and modified focus group design. Early results indicate that the WiSE Program is meeting its intended objectives. Students who participated in the WiSE program for more than one year are demonstrating higher levels of integrative learning and civic engagement, as measured by the VALUE rubrics.

These results have been disseminated through several conference presentations, including the International Conference of STEM in Education, Annual Meeting of the Pacific Northwest Association for Institutional Research and Planning, and the International Conference on Health Promoting Universities and Colleges. A paper of the results is currently in preparation for the Canadian Journal of Program Evaluation.

### ORGANIZATIONAL SUMMARY:



Established in 2005, the vision of UBC WIE is to create a safe and inclusive environment that allows women students to participate fully and equitably while they are enrolled in Engineering at UBC.

The program creates opportunities for students to engage in dialogue, network with peers and industry professionals, and enhance their academic, leadership, professional, and personal competencies via a myriad of workshops and events to best prepare them for the engineering workplace. Spearheaded by a Student Council, WIE programs serve all women students at UBC.

With a committee of graduate and undergraduate students, as well as support from faculty and industry partners, WIE strives to:

- provide professional development opportunities for all engineering students
- create an inclusive environment for all students
- eliminate systemic barriers to female engineering students' participation
- create a support for women currently in the field

Several WIE events such as the APEGBC Salary Seminar and December 6<sup>th</sup> Memorial and the Women in Science and Engineering networking event have become stronghold events that have contributed to creating a supportive and safe campus community for all engineering students.

For more information visit [www.wie.engineering.ubc.ca](http://www.wie.engineering.ubc.ca)

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## PROJECT SUMMARY:

### WOMEN IN SCIENCE AND ENGINEERING (WiSE) NETWORKING EVENT

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WVEST PARTNER FOR: 2011-13

GRANT VALUE: \$1,200



Annually WiE partners with the UBC Faculty of Science to host the Women in Science and Engineering (WiSE) networking event. Attended by students and industry professionals, WiSE offers students the opportunity to receive career advice from professional women in the industry, connects students to potential mentors, and supports women students in science and engineering.

The purpose of the event is to allow students to discover the potential behind their degrees and introduce them to women who have taken traditional and non-traditional paths that have led to exciting careers. Students read about and select mentors they would like to meet prior to the event. Over the evening, students rotate between pre-matched mentors for table discussions in small groups with other students. The night also features a keynote speech by a prominent women in STEM.

WiSE provided a professional development opportunity for students and organizers by focusing on networking, public speaking, event planning and event marketing and promotion. Student organizers were able to create strong networks with UBC staff and faculty, UBC organizations and industry representatives. The direct benefits to student attendees included immediate networking with mentors in very specific fields, exposure to the various career paths that engineering and science degrees can bring, and an introduction to the various mentorship resources available through UBC Alumni, Tri -Mentoring and UBC WiE.

Between 2011 and 2014 over 250 students and 100 mentors attended the annual WiSE event. Of the 70 students who attended in 2014, the majority said they had an increased confidence in their degree choice, an increase in energy for discovering the potential behind their degree, an increased value towards mentor relationships, and gaining a new perspective on their career and personal paths.

### ORGANIZATIONAL SUMMARY:



Inspired by the Building Communities Symposium first run in September 2007, Women in Engineering (Vancouver Region) is a group of engineering women continuing the efforts to create a network of women engineers in the Vancouver region.

The organization aims to promote skill enhancement workshops and strong connections to a diverse group of women in engineering across workplaces, engineering fields, and universities, in the Vancouver Region.

Its mission is to provide a diverse group of women in engineering with networking events and skills enhancement workshops in a welcoming environment and to continuously build and maintain a network of strong relationships among women in engineering in the Vancouver Region.

For more information visit [www.wievr.ca](http://www.wievr.ca)



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## PROJECT SUMMARY:

### WORKSHOP SERIES

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WVest PARTNER FOR: 2011-13

GRANT VALUE: \$2,000



The Vancouver regional group of Women in Engineering aims to promote and enhance women in the industry by organising regular workshops and conferences. WVest Partners funding has helped to support three workshops annually for 2011-2013. Overall these workshops reached over 150 women.

The November 2011 workshop was “The 3 massive mistakes even smart business professionals make that keep them overstressed, unhappy and unhealthy”. A woman business professional’s life can be extremely stressful as, in addition to doing a job, there are many other demands on time, energy and resources. The presenter provided strategies for when you feel pulled in multiple directions trying to meet all the demands. Participants were asked what they particularly enjoyed and the feedback included “Very informal event but at the same time very professional”, and “The candidness of the speaker and willingness to share her personal experience.”

Judi Hess led the November 2012 workshop “The Gender Gap in Engineering: How far have we come? Where do we go from here?” Judi showed that girls outperform boys in math and physics, but very few work in these fields. She talked about some of the underlying reasons for this attrition, as well as what can be done to improve this situation. Throughout the presentation, Judi also told stories of her personal struggles and the road blocks she overcame to get to where she is now, the CEO of Copperleaf Technologies.

In January 2013 the interactive workshop was entitled “Entrepreneurship and starting your own consulting business”. Donna Denny presented her journey to business ownership and gave practical tips on how to start a consulting business, and how to tackle the internal demons. Participant feedback included: “The presenter was very interesting, a great role model”, and “Good job! Please keep it up!”



### ORGANIZATIONAL SUMMARY:



### Women in Physics Canada Conference

WIPC is a national conference aimed primarily at (but not restricted to) graduate students in physics, astrophysics, mathematical physics and related fields. In previous years, the conference was held at the University of Waterloo, University of Toronto and Simon Fraser University, as well as UBC.

WIPC is first and foremost a scientific conference, in which early career scientists have the opportunity to present their work and to hear plenary talks from leaders in the field. Its intent is also to provide support to early career women, encouraging them to continue in a career in science. The conference provides participants with the opportunity to network with women in physics from across Canada, to facilitate the sharing of experiences, ideas and advice. WIPC aims to foster a sense of community and belonging among participants.

The conference consists of a combination of:

- Plenary science talks by leading women in physics in Canada
- Expert panels focused on topics of interest to Canadian female graduate students and postdocs in physics
- Oral and poster sessions for scientific presentations by attendees
- Social events to facilitate networking and mentorship of participants.

For more information visit [www.womeninphysicscanada.ca](http://www.womeninphysicscanada.ca)

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## PROJECT SUMMARY:

### WOMEN IN PHYSICS CANADA CONFERENCE 2012

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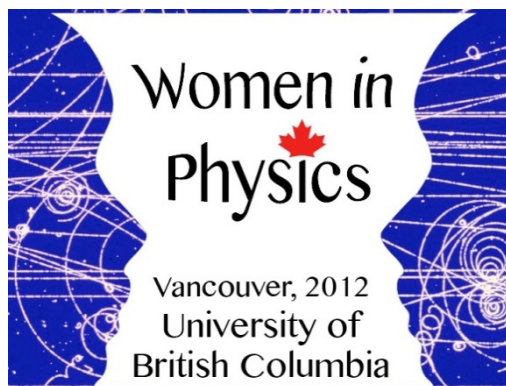
WWEST PARTNER FOR: 2012  
GRANT VALUE: \$1,800

The second Women in Physics Canada conference ran from August 1<sup>st</sup> – 4<sup>th</sup> August 2012 at the University of British Columbia. The event began with a BBQ reception and was attended by 110 participants from 34 universities across Canada and the U.S, comprising a variety of young women in all areas of physics (including Engineering Physics & Astronomy) primarily undergraduate and graduate students, as well as early career physicists and postdocs.

During the three days, conference participants attended 6 invited plenary talks, a poster session featuring over 30 contributions, 3 panel discussions, and 6 sessions of contributed talks by conference participants (a total of 42 contributed talks were presented)

In addition, over \$11,000 dollars of leveraged funding was received from various sources for the conference.

In a post-conference survey, over 80% of respondents indicated that the conference such was useful towards advancing their careers in physics.



*"It was very cool to learn about careers in industry, as this information is not easy to come by in academia. Also, to hear about a variety of career paths from diverse women was extremely interesting and helpful."*

- Participant

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## PROJECT SUMMARY:

### WOMEN IN PHYSICS CANADA CONFERENCE 2013

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WWEST PARTNER FOR: 2013

GRANT VALUE: \$2,000

The third annual Women in Physics Canada conference ran from July 25 - 27, 2013 at Simon Fraser University's Burnaby campus. There were 63 participants, including undergraduate and graduate students, postdocs, physics teachers and faculty from across Canada and the USA, 12 panelists and seven invited speakers:

- Corina Andreoiu, Barbara Frisken and Karen Kavanagh (SFU)
- Sabine Stanley (University of Toronto)
- Sylvia Wessel (Ballard Power Systems)
- Shohini Ghose (Wilfrid Laurier University)
- Paula Heron (University of Washington)

Aimed at young women in all areas of physics, the conference addressed the underrepresentation of women in the field of physics by giving participants an opportunity to present their research as contributed talks and poster presentations. There were also opportunities to network during the many coffee breaks, the poster session BBQ, and the banquet dinner. Three panel discussions on *Alternate Academic Careers*, *Career and Family Issues*, and *How to Get a Job in Industry* provided the participants with valuable information.



The evaluation survey showed that 73% of the respondents agreed with the statement "This conference made me feel more satisfied with my career choice", and the same percentage also agreed that the conference provided them with some coping strategies to succeed in their careers.

WWEST Partners funding went towards the \$100 travel grants for BC residents from outside the Lower Mainland. It was also used to subsidize the registrations of the 47 participants who reside in BC.