



## ICWES12 FINAL PROGRAM

Sunday, 8:30am 11:45am Congress level  
(Room A)

*Chair : Elizabeth May*

### Symposium 1 - Climate Change

385 *Symposium 1 "Climate Change"*

May, Elizabeth (Canada), Dowdeswell, Elizabeth (Canada), Bruce, James (Canada), Connor, Hélène (France)

Sunday, 8:30am - 9:45pm Congress level  
(Room E)

*Chair: Ruby Heap*

### Women's Studies Plenary

*Co-Chair: Marilyn MacDonald*

387 *Women's Studies Plenary*

Rosser, Sue (USA)

Sunday, 10:15am - 11:45am Congress level  
(Room E)

*Chair: Ruby Heap*

### Women's Studies (1)

*Co-Chair: Marilyn MacDonald*

113 *Retaining Women in the Set Workplace: Understanding the Reasons Women Leave*

Reeder, Marilyn M. (USA), Fitzpatrick, Michele (USA), Brown, Violette (USA)

345 *Family Obligations or Cultural Constraints? Obstacles in the Path of Professional Women*

Legault, Marie-Josée (Canada), Chasserio, Stéphanie (Canada)

315 *La carrière que l'on porte en soi : le cheminement identitaire de huit femmes ingénieries devenues gestionnaires*

Fortier, Isabelle (Canada)

269 *Career Choices, Promotion and Retention of Ph.D. Women Scientists in the Scientific Workforce*

MacLachlan, Anne J. (USA)

Sunday, 10:15am - 11:45am Capital level  
(Room 1B)

*Chair: Hiromi Matsui*

**Computer Science - Attitudes**

- 238 *Women in Computer Science: Why So Few?*  
Erwin, Lorna (Canada)
- 259 *Stereotypes and Anomalies: Women in Computer Science*  
Matsui, Hiromi (Canada)
- 275 *Multimedia - A Doorway for Girls into the I.T. Domain?*  
Turner, Tari (Australia)
- 319 *Perceived Support and Computer-Related Attitudes: Predictors of High School Students' Future Intentions in Computer Science*  
Godin, Judith (Canada), Trinneer, Anne (Canada), Abarbanel, Tracy (Canada), Crombie, Gail (Canada)

Sunday, 10:15am - 11:45am Capital level  
(Room 2B)

*Chair: Linda H. Mantel*

**Initiatives by Associations (1)**

- 265 *Mentoring and Networking as Keys to Success for Women in Science*  
Mantel, Linda H. (USA)
- 92 *Getting More Women Into the Canadian Engineering Profession and Keeping Them There*  
Martinson, Karen M. (Canada), Smadych, Susan (Canada)
- 52 *Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers in the United States of America*  
Madsen, Lynnette (USA)
- 310 *The NSERC/Industry Chairs for Women in Science and Engineering: A National Program in Canadian Universities*  
Williams, F. Mary (Canada), Klawe, Maria (Canada), Cannon, Elizabeth (Canada), Deschênes, Claire (Canada), Frize, Monique (Canada), Muir, Barbara (Canada)
- 328 *Autonomous Organizations of Women Engineers and Scientists in the Present Day*  
Kazuno, Mitsuko (Japan)

Sunday, 10:15am - 11:45am Capital level (Room 3B)

*Chair: D. Dounston*

**Social Studies - Career in Information Technology**

91 *Engineering Women's Community*

Field, Susan L. (USA), Dunston, Doug (USA)

175 *"As if we Were from Outer Space": Outcomes of an Austrian Women-into-Engineering Project*

Wächter, Christine (Austria)

78 *Becoming a Female Engineer in the Community of Practice: Perspectives on Participation and Learning*

Wood, Shaunda (Canada)

242 *An Image of Their Future: How Women in Computer Technology Envision Their Jobs and Lives*

Gemme, Brigitte (Canada)

Sunday, 10:15am - 11:45am Capital level (Room 4B)

*Chair: Rachal Ivie*

**Women in Different Sectors - University & Research**

170 *The Challenge of "Breaking the Glass Ceiling" for Women Academics of Hong Kong*

Mo, Julie K.W. (Hong Kong), Ng, Lai Yin (Hong Kong)

169 *US Women in Academic Physics*

Ivie, Rachel (USA), Stowe, Katie (USA)

75 *Wanted: Professor (f). The Position of Women at Flanders' Universities*

Valgaeren, Elke (Belgium), Van Haegendoren, Mieke (Belgium)

167 *Young Women's Perceptions and Experiences of Becoming a Research Physicist*

Whitelegg, Elizabeth (UK), Hodgson, Barbara (UK), Scanlon, Eileen (UK), Donovan, Claire (UK)

122 *All-Female Science: Editorial Observations on a Journal Special Issue: "Women Sensing the World"*

Topliss, Brenda (Canada), Proy, Dominique (France)

Sunday, 10:15am - 11:45am Capital level  
(Room 5B)

*Chair: Luce Gauthier*

**Technical Papers - Engineering/Physics**

- 83 *Background Radiation Measurement by Gamma Spectroscopy of Soil Samples*  
Andam, Aba Bentil (Ghana), Amponsah, Y. (Ghana), Addison, Eric C.K. (Ghana)
- 181 *Flooding and Erosion Control Problems in a Developing Country : A Case Study of Benin City, Nigeria*  
Idahosa-Aghedo, Osadamwenyi I. (Nigeria)
- 84 *Radon Measurement as Index of Natural Background Radiation in Ghana*  
Andam, Aba Bentil (Ghana), Addison, Eric C.K. (Ghana)
- 158 *Advanced Reverse Osmosis Based Water Desalination*  
Djokic, Tamara (Canada), Van Driest, Richard (Canada), Scott, Keith (Canada)

Sunday, 12:00am - 1:30pm Congress level  
(Room E)

*Chair: Monique Frize*

**Industry Panel**

- 384 *Workforce Challenges and Potential Remedies for the Information and Communications Technology (ICT) industry sector:*  
1- *Employee Stress*  
2- *Employee Retention*  
3- *Employee Motivation*  
Simson, Claudine (Canada), Sandall E., Kathleen (Canada), Peach, Terry (Canada)

Sunday, 1:45pm - 3:15pm Congress level  
(Room A)

*Chair: Joanna O. Maduka*

**Climate Change**

- 112 *Renewable Energy and the Empowerment of Women in Nigeria*  
Maduka, Joanna O. (Nigeria)
- 123 *The Moderating Role of the Oceans in Climate Change*  
Topliss, Brenda (Canada), Niven, Sherry (Canada)
- 303 *The Implementation of the Kyoto Protocol: International Climate Change Policies in Latin America*

- Solis, Karla (UK), Begg, K (UK), Robins, A. (UK), Veeraraghavan, S (UK)
- 159 *The Role of Nuclear Power in Combating Climate Change*  
 Cooke, Elisabeth (U.K.)

<u>Sunday, 1:45pm - 3:15pm Congress level (Room E)</u>	<i>Chair: Ruby Heap</i> <i>Co-Chair: Marilyn MacDonald</i>
<b>Women's Studies (2)</b>	

- 348 *Anxiété à l'égard des mathématiques : situation des femmes*  
*Anxiety Towards Mathematics : Women's Situation*  
 Lafortune, Louise (Canada)
- 215 *Women In Engineering Leadership Institute: Academic Leadership Development Plans*  
 Davidson, Valerie (Canada), Vance, J.M (USA), Niemeier, D.A. (USA)
- 352 *Biology as if the World Mattered*  
 Muzzin, Linda (Canada), Tripp, Peggy (Canada), Abergel, Elisabeth (Canada)

<u>Sunday, 1:45pm - 3:15pm Capital level (Room 1B)</u>	<i>Chair: TBD</i>
<b>Computer Science - Training</b>	

- 125 *Training for Computing: Men and Women's Preferred Methods*  
 Dryburgh, Heather (Canada)
- 64 *Computer-Based Study Skills Training: The Influence on Performance and Retention of Female Students in Chemical Engineering*  
 Jovanovic, Renata (Canada), Zinatelli, Marna (Canada), Dubé, Marc A. (Canada)
- 171 *Promoting the Use of Information Technology by Women Scientists and Doctors of Bangladesh*  
 Rahman, Lutfor (Bangladesh)
- 174 *Crossing the Digital Divide: Experiences of Gender and Technology in Community ICT Initiatives*  
 Herman, Clem (UK)

Sunday, 1:45pm - 3:15pm Capital level (Room 2B)

*Chair: Suzelle Barrington*

**Initiatives by Associations (2)**

- 145 *Work Satisfaction for Québec Women Engineers (Satisfaction au travail des ingénierues québécoises)*  
Barrington, Suzelle (Canada), Fortier, Isabelle (Canada)
- 254 *Opening the Doors and Keeping Them Open*  
Michael, Lorraine A. (Canada)
- 367 *The Access Program for WISE: The Evolution of Community Outreach in Science and Engineering at the University of Manitoba*  
Flather, Colleen (Canada)
- 208 *Marketing WISE Newfoundland and Labrador*  
Anthony, Lisa (Canada), Barnard, Joanna (Canada)
- 301 *University of East Anglia HESDA Briefing Paper: Growing the Future of Research - ResNet 2000 a Network for Women Contract Research Staff.*  
Goodall, Ruth E. (UK), Marcantonio, Julia (UK), Green, Helen (UK), Anderson, Jan (UK), Gronberg, Karin (UK), Fox, Caroline (UK)

Sunday, 1:45pm - 3:15pm Capital level (Room 3B)

*Chair: Claudie Solar*

**Social Studies - Self Confidence/Career Choice**

- 220 *Comparing Female and Male Experiences in the Rowan Undergraduate Engineering Program*  
Hartman, Harriet (USA), Hartman, Moshe (USA)
- 88 *The Gendering of Possible Futures: How Female and Male Students Map out Divergent Path of Accomplishment*  
Lips, Hilary M. (USA)
- 57 *My Career Rocks!: Theories of Career Development for Women*  
Darou, Wes G. (Canada)
- 182 *Socio-Cultural Influences Affecting Gender Equity in Engineering in Nigeria*  
Idahosa-Aghedo, Osadamwenyi I. (Nigeria), Idahosa-Aghedo, I.O. (Nigeria)

Sunday, 1:45pm - 3:15pm Capital level (Room 4B)

*Chair: Nancy Cutler*

**Women in Different Sectors - Industry**

- 299 *Women in Science and Technology: Barriers in Canada and the World My Perspective*  
Cutler, Nancy (Canada)
- 89 *Participation of Women in Management in the Hong Kong Construction Industry*  
Ng, Lai Yin (Hong Kong), Mo, Julie K.W. (Hong Kong)
- 249 *Women's Scientific and Engineering Contribution to the Canadian Space Station Program*  
Béland, Sylvie (Canada), Bourassa, Marie-Josée (Canada), Casgrain, Catherine (Canada)
- 286 *Hardrock Mining and the Evolution of the Roles for Women*  
Espley, Samantha (Canada), Francis, Helen (Canada), Castonguay, Marie-Josée (Canada)
- 334 *Women in Law and Engineering: A Preliminary Inquiry into the Value of Lateral Analysis*  
Singh, Meera (Canada), Gallant, Michelle (Canada)

Sunday, 1:45pm - 3:15pm Capital level (Room 5B)

*Chair: Margaret-Ann Armour*

**Technical Papers Chemistry/Biology**

- 46 *Practical Methods for the Management and Disposal of Small Quantities of Hazardous Chemicals for the 21st Century*  
Armour, Margaret-Ann (Canada), Klemm, Roger (Canada), Linetsky, Asya (Canada), Chang, Mui (Canada), Ashick, Donna (Canada)
- 222 *First Haldor Topsoe WSA Plant in North America is Commissioned*  
Laplante, Marie (USA)
- 132 *Chemical Volcano*  
Aina, Stephen Olubenga (Nigeria)
- 204 *Chimeric Lectins: An Approach for the Construction of Lectins Having Unique Carbohydrate Specificities*  
Konami, Yukiko (Japan), Yamamoto, Kazuo (Japan)

Sunday, 3:45pm - 5:15pm Congress level  
(Room A)

*Chair: Helene Connor*

**Globalisation**

205 *Impact of Globalization and Privatization on Job Opportunities for Women Engineers*

Elleboudy, Azza M. (Egypt)

245 *Building Bridges for New Canadian Scientists: The Case of Immigrant Women in Science and Technology*

Fowler, Shauna (Canada), Adamuti-Trache, Maria (Canada)

74 *Economic Development of Ukraine: Ahead to Globalization?*

Shubravska, Olena (Ukraine)

142 *Integrated Appropriate Technological Knowledge: A Female Approach to our Technical Future*

Carpenter, Jackie (UK)

168 *Gender Issues and Information Technology in Nigeria*

Chiemeke, Stella Chinye (Nigeria)

Sunday, 3:45pm - 5:15pm Congress level (Room E)

*Chair: Ruby Heap*

**Building Bridges Between WS and NAHS Panel**

*Co-Chair: Marilyn MacDonald*

379 *Building Bridges between Women's Studies and the Natural, Applied and Health Sciences*

MacDonald, Marilyn (Canada), Dewandre, Nicole (European Commission), Farkas, Nicole (USA), Kimball, Meredith (Canada), Shulman, Bonnie (USA)

Sunday, 3:45pm - 5:15pm Capital level (Room 1B)

*Chair: Maria Klawe*

**Women in Information Technology Panel**

256 *Enabling Women to Pursue Careers in Computing through Post Baccalaureate Programs*

Klawe, Maria (Canada), Cavers, Ian (Canada), Belleville, Patrice (Canada), Bultmann, Manfred (Canada), Nasiopoulos, Panos (Canada), Holland, Raymond (Canada)

Sunday, 3:45pm - 5:15pm Capital level (Room 2B)

*Chair: Monique Frize*

**The Bold and the Brave**

- 360 *The Bold and the Brave: Women Engineers Striving for Change*  
Frize, Monique (Canada)
- 374 *Awareness of Gender Inequity in Engineering*  
Bhuiyan, Nadia (Canada)
- 219 *Violence in the Workplace: the Case of the Engineering College Students*  
Asha, G (India)
- 40 *Advancing Career Success: Professional Development Initiatives that Work for Women in Science and Engineering*  
Emerson, Carolyn J. (Canada), Williams, F. Mary (Canada), Kieley, Jane (Canada)

Sunday, 3:45pm - 5:15pm Capital level (Room 3B)

*Chair: Susan Bird*

**Women Experiences in Different Countries**

- 105 *The Quest for a Male Child*  
Das Mazumdar, Madhumita (India)
- 368 *Effect of Marine Ecotourism on the Womanfolks of Malaysia's Marine Park*  
Tan Shau-Hwai, Aileen (Malaysia), Zulfigar, Y (Malaysia)
- 202 *Preliminary Study on Atomic Energy-Related Articles in the Newspapers in Aomori Prefecture, Japan*  
Sasagawa, Sumiko (Japan)
- 190 *Vietnam Intellectual Women in the Process From Embodying to Existing*  
Xuan, Ta Thi (Vietnam)

Sunday, 3:45pm - 5:15pm Capital level (Room 4B)

*Chair: Melody Kratsios*

**Women in Different Sectors - Working Conditions/Safety**

- 236 *Human Factors Engineering in a Mixed Gender Population*  
Berntson, Kira (Canada), Ngo, Cam (Canada)
- 221 *Integrated Teams and Rail-Based Mass Transit Projects*

Kratsios, Melody (Canada)

- 147 *Something is Rotten: Women in the Fish & Seafood Processing Industry in India*

Sircar, Roopali (India)

- 131 *Number and Impact of Women in the Health Care Sector: A Case Study of Two Major Hospitals in Benin City, Nigeria*

Obot, MarieStella (Nigeria), Aina, Stephen Olubenga (Nigeria), Obot, Nsitie (Nigeria), Okosun, Meg (Nigeria)

Sunday, 3:45pm - 5:15pm Capital level (Room 5B)

*Chair: Moyra McDill*

**Technical Papers - Information Technology**

- 166 *UMA Project Collaborator: Discovering the Opportunities of Managing Projects Online*  
Latham, Marg (Canada)

- 287 *Code Generation for Digital Communication Algorithms on Application-Specific Processors*

Habib, Durdana (Pakistan), Khan, Shoab Ahmed (Pakistan), Sadiq, Sohail (Pakistan)

- 55 *Developing and Maintaining a Large FEA Research Code*

McDill, Moyra (Canada)

- 94 *Genetic Algorithms as Self Organizing Methods Applied to Digital Systems Design*

Whaphott, Grazyna F (England)

Sunday, 5:15pm - 6:00pm (Exhibit Area)

**Poster (1)**

- 44 *The First Description of "Recoil" Phenomenon by Harriet Brooks, Pioneer Nuclear Scientist*

Aratani, Michi (Japan)

- 61 *Women in Physics at McGill University During the 20th Century*

Gauthier, Luce (Canada)

- 81 *Photoelectric Measurement of Motile Responses of Pigment Cells in Teleost Fishes*

Oshima, Noriko (Japan), Fujii, Ryozo (Japan)

- 93 *Biomedical Application of Chitic Substances; Finely Pulverized Chitin is Immunopotentiating in Aged Mice by Oral Administration*

Suzuki, Masuko (Japan), Ogasawara, Ayako (Japan), Watanabe, Toshihiko (Japan),

- Mikami, Takeshi (Japan), Matsumoto, Tatsuji (Japan), Suzuki, Shigeo (Japan), Matahira, Yoshiharu (Japan), Sakai, Kazuo (Japan)
- 140 *Retinoic Acid Inhibits the Formation of Desmosomes in Oral Mucosal Epithelial Cells*  
Hatakeyama, Setsuko (Japan)
- 184 *Screening for Microalbuminuria in Final Year Medical Students: A Pilot Study*  
Unuigbe, Evelyn (Nigeria), Ighoroje, Ahbor (Nigeria), Imariagbe, F.A. (Nigeria), Alozie, O.K. (Nigeria)
- 193 *Inhibition of Rat Tumor Cell Growth Using an Extract of the Colleterial Gland of the Japanese Wild Silkmoth, Antheraea Yamamai*  
Yago, Motoko (Japan), Horaguchi, Hiroaki (Japan), Suzuki, Koichi (Japan), Abe, Sinji (Japan), Hashimoto, Susumu (Japan)
- 194 *Light Stable Isotopes of Silk*  
Becker, Mary A (Japan), Magoshi, Y. (Japan), Tuross, N. (USA)
- 195 *Similarities in the Physical and Chemical Properties of Silk from Various Strains of Bombyx mori Silkworms*  
Magoshi, Y. (Japan), Hata, Tamako (Japan), Magoshi, Jun (Japan), Becker, Mary A (Japan)
- 200 *C-type Lectin-homologous Genes in the Mouthparts of a Fleshfly*  
Kihara, Mami (Japan), Yukuhiro, Fumiko (Japan), Koganezawa, Masayuki (Japan), Shimada, Ichiro (Japan), Nagaoka, Sumiharu (Japan)
- 243 *Construction of the Growing Information - Community for Teratogenic Agents in Japan*  
Yamauchi, Aiko (JAPAN), Doolin, Eiko Nakata (JAPAN)
- 290 *Bioethics Education in the Science Field - A Case Study on the Organ Transplantation from Brain-Dead Donors*  
Kunugi, Yukiko (Japan)
- 296 *Incidence of Typhoid Fever in Orora Community Near Benin City (Nigeria) and How to Prevent It*  
Nworgu, Zuleikha A. (Nigeria)
- 317 *Histochemical Localization of Some Enzymes in the Midgut Gland of the Japanese Horseshoe Crab*  
Tanimoto, Satomi (Japan), Ishikawa, Chikako (Japan), Ohtomi, Michiko (Japan)
- 364 *Overcoming Medical Standardization Barriers with XML*  
Catley, Christina (Canada), Frize, Monique (Canada)
- 392 *The Canadian Challenge: Attracting and Retaining Women in Physics*

D'Iorio, Marie (Canada), McKenna, Janis (Canada), McMillan, Ann (Canada), Svensson, Eric (Canada)

<u>Monday, 8:30am - 2:45pm Congress level</u> <u>(Room E)</u>	<i>Chair: Claire Deschênes</i> <i>Co-Chair: Vera Straka</i>
<b>Symposium 2 - Ethics and Science</b>	

386 *Symposium 2 " Ethics and Science "*

Somerville, Margaret (Canada), Vanderburg, Willem (Canada), Gibbins, Ann (Canada), Margaritis, Argyrios (Canada), Beckett, Barbara (Canada), Ighoroje, Ahbor (Nigeria), Unuigbe, Evelyn (Nigeria)

185 *The Ethical Question: Clinical and Laboratory Experimentation Perspectives in Nigeria*

Ighoroje, Ahbor (Nigeria), Unuigbe, Evelyn (Nigeria)

<u>Monday, 8:30am - 9:45am Congress level</u> <u>(Room E)</u>	<i>Chair: Jennifer Flanagan</i> <i>Co-Chair: Cheryl Gorman</i>
<b>Youth Program Plenary</b>	

383 *Youth Program Plenary "Youth Engagement in Science and Technology"*

Saraswathy, Submaranian (India), Flanagan, Jennifer (Canada)

<u>Monday, 10:15am - 11:45am Congress level</u> <u>(Room E)</u>	<i>Chair: Jennifer Flanagan</i> <i>Co-Chair: Cheryl Gorman</i>
<b>Youth Program - K to 12 (1)</b>	

77 *An "Insight into Engineering" Course in Scotland*

Wilkie, Jacqueline (Scotland), Wright, Zane (Scotland)

300 *Impact of Performance Anxiety and Parental Attachment in Relation to Gender and Academic Achievement in Math, Science, and English*

Wolfe, Devon (Canada), Lupart, Judy L. (Canada)

248 *Issues of Retention of B.*

249 *C. Young Women Through the Science and Engineering Pipeline*

Adamuti-Trache, Maria (Canada), Andres, Lesley (Canada)

128 *Predicting Science Achievement in Males and Females: Perceptions of Science*

Pyryt, Michael C. (Canada), Lupart, Judy L. (Canada), Cannon, Elizabeth (Canada)

180 *Gender Differences in Science Achievement, Science Related Career Choices, and*

*Perceptions of Adult Roles in Society*

Telfer, Jo Ann (Canada), Lupart, Judy L. (Canada)

Monday, 10:15am - 11:45am Capital level  
(Room 1B)

*Chair: Peggy Layne*

**ASME, IEEE, ASCE Panel**

- 263 *The Role of Technical Societies in the Recruitment, Retention, and Advancement of Women Engineers*

Layne, Peggy (USA), Jeff, Gloria (USA), Witchey-Lakshmanan, Leonore (USA),  
Moman-Saunders, Monica (USA), Watson, Karan L. (USA)

Monday, 10:15am - 11:45am Capital level  
(Room 2B)

*Chair: Misa Gratton*

**Women in Different Sectors - Statistics**

- 366 *Toolkit on Gender Indicators in Engineering, Science and Technology UNESCO and the Gender Advisory Board, UN Commission on Science and Technology for Development*

Huyer, Sophia (Canada), Westholm, Gunnar (Canada)

- 262 *Asian Engineers in the United States Data from SWE's 1993 Survey of Women and Men Engineers*

Eng, Patricia L. (USA), Layne, Peggy (USA)

- 58 *Nigerian Women Scientists and Engineers: Participation, Reflections and Reminiscences*

Erinosh, Stella (Nigeria)

- 261 *An International Profile of Women in Electrical Engineering*

Eng, Patricia L. (USA), Gaudio, Pilar Molina (Spain)

Monday, 10:15am - 11:45am Capital level  
(Room 3B)

*Chair: F. Mary Williams*

**Social Studies - Gender Analysis**

- 369 *Diversity, Thinking Styles, and Infographics*

Williams, F. Mary (Canada)

- 255 *An Exploration of Gender Differences in Computer Usage and Affinity, and the*

*Relationship with Career Plans and Adult Life Choices*

Jacobsen, D. Michele (Canada), Lupart, Judy L. (Canada), Cannon, Elizabeth (Canada)

- 329 *Investigating the Learning Difficulties Faced by Girls in Understanding Logico-Mathematical Concepts in Physics A Case Study in the Mauritian Context*

Parmessur, Pritam (MAURITIUS), Ramma, Yashwantrao (MAURITIUS), Ramdinny, Anita (MAURITIUS)

Monday, 10:15am - 11:45am Capital level  
(Room 4B)

*Chair: Lisa Anderson*

**Outreach - Girls, Young Women**

- 228 *Engineering: A Career Choice for Young Women*

Anderson, Lisa (Canada), Straka, Vera (Canada)

- 292 *What's In A Name? The Story of the Kate Gleason College of Engineering*

Tierney, Joan M. (USA)

- 203 *Mentoring and Associated Activities of the Alberta Women's Science Network*

Carter, Lisa (Canada), Luethy, Joyce (Canada)

Monday, 10:15am - 11:45am Capital level  
(Room 5B)

*Chair: Ann Holmes*

**Family and Work Balance**

- 320 *Mère et ingénierie à la fois... Recherche exploratoire sur l'articulation travail-famille*

Van Nieuwenhuyse, Hélène (Canada), Descarries, Francine (Canada), Deschênes, Claire (Canada)

- 207 *Chasing the Elusive Balance: A Case Study of Women Professional Engineers in Bangladesh*

Leowinata, Sevilla (Canada)

- 178 *Professional Activity of Women and Family Obligations*

Szemik-Hojniak, Anna (Poland)

Monday, 1:15pm - 2:45pm Congress level  
(Room E)

*Chair: Gail Crombie*

*Co-Chair: Cheryl Gorman*

**Youth Program - K to 12 (2)**

244 *Promoting Science in Secondary Students: What Have Parents Got to Do With It?*

Lupart, Judy L. (Canada), Gair, Lois (Canada)

218 *Gender Differences in Expectations for Success in Three Subject Domains*

Lorenz, Elayne Harris (Canada), Lupart, Judy L. (Canada)

42 *Science and Technology Summer Camps: Their Effects on Attitudes, Values, and Future Intentions of Canadian Youth*

Crombie, Gail (Canada), Flanagan, Jennifer (Canada), Walsh, John P. (Canada), Hall, Virginia (Canada)

252 *Secondary Students and Gender Differences in Computer Attitudes, Skills, and Perceived Ability*

Lupart, Judy L. (Canada), Teasdale, Stephanie (Canada)

Monday, 1:15pm - 2:45pm Capital level (Room 1B)

*Chair: Susan Staffin Metz*

**AWIS, WEPAN, SWE Panel**

151 *Women in Engineering and Science: Collaborative Models for the Future*

Didion, Catherine (USA), Mattson, Gail (USA), Staffin Metz, Susan (USA)

Monday, 1:15pm - 2:45pm Capital level (Room 2B)

*Chair: Ann Holmes*

**Women Experiences in Different Countries**

199 *Women Scientists in Japan - History and Today*

Tsugawa, Akiko (Japan), Konami, Yukiko (Japan)

139 *Female Education in Mathematics and Sciences*

Der, Ngoya (Senegal)

179 *Unemployment of Women in Poland*

Szemik-Hojniak, Anna (Poland)

Monday, 1:15pm - 2:45pm Capital level (Room 3B)

*Chair: Jeanne d'Arc Gaudet*

**Social Studies - Enrolment**

- 56 *Youth Participation Trends in Science and Engineering*

McDill, Moyra (Canada), Mills, Shirley (Canada)

- 41 *Girls and Science: An Untimely Missed Rendez-vous (Le rendez-vous manqué des jeunes Canadiennes françaises avec les études en sciences et ingénierie : pourquoi faut-il s'en inquiéter?)*

Gaudet, Jeanne d'Arc (Canada), Lapointe, Claire (Canada)

- 119 *Students' Epistemologies in Science and Engineering: Paths to Responsibility and Connection*

Dunston, Doug (USA), Field, Susan L. (USA)

- 237 *An Examination of Gender Participation Patterns in Science Competitions*

Chaudhuri, Sri (Canada), Chaudhuri, Esha (Canada)

Monday, 1:15pm - 2:45pm Capital level (Room 4B)

*Chair: Maria Klawe*

**Outreach - Girls and Information Technology**

- 330 *Motivating Participation in Virtual Learning Communities*

Vassileva, Julita (Canada)

- 257 *“Virtual Family”: An Approach to Introducing Java Programming*

MacGregor, Eve (Canada), Duplantis, Willa (Canada), Klawe, Maria (Canada), Ng, Michele (Canada)

- 308 *Using Stories to Hook Girls on Science: CAGIS Science Squad Webisodes*

Vingilis-Jaremko, Larissa (Canada), Vingilis, Evelyn (Canada)

Monday, 1:15pm - 2:45pm Capital level (Room 5B)

*Chair: Catherine Didion*

**Personal Experiences**

- 229 *Finding Confidence and Success: Two Foreign Students Share Their Experiences as Women in Graduate Studies in Canada*

Carmona Garcia, Alejandra (Canada), Morozova, Natalia (Canada)

- 321 *Promotion, Retention of Girls in Schools - Women, Engineering, University of Zambia:*

*Reflections on my Experience*

Mofya Musonda, Aggie (Zambia)

138 *A Title to Work*

Griffin, R. Elizabeth (UK)

338 *The Challenges for Women to Study Engineering in Kenya*

Were, Emily Claire (Uganda)

Monday, 3:15pm - 4:45pm Congress level  
(Room A)

*Chair: Corinne Mount Pleasant - Jetté*

**Keepers of the Circle Panel**

285 *Aboriginal Women: Keepers of the Circle of Knowledge*

Mount Pleasant - Jetté, Corinne (Canada), Decontie, Karen (Canada), Wuttunee, Wanda (Canada), Settee, Priscilla (Canada), Dyck, Lillian E. (Canada)

Monday, 3:15pm - 4:45pm Congress level (Room E)

*Chair: Jennifer Flanagan*

**Youth Program - University Recruitment and Retention**

*Co-Chair: Cheryl Gorman*

335 *Recruitment and Retention of Female Students in Engineering Courses at Curtin University of Technology*

Male, Sally (Western Australia), Lawrence, William B. (Australia), Dias, Tamarasi (Australia)

116 *A Systemic Change Model in Engineering Education and Why it is Relevant for Women*

Rinehart, Jan (USA), Watson, Karan L. (USA)

225 *Teacher Preparation in the STEMTEC Collaborative: Strategies for Increasing the Number of Female Science and Mathematics Teachers*

Palmer, Sharon M. (USA), Tyler, William E. (USA), Sternheim, Morton M. (USA)

73 *How Children Learn: Implications for Outreach*

Clarke, Cailin (Canada), Elworthy, Anita (Canada), Schmidt, Bonnie (Canada)

327 *Developing and Implementing a Women in Engineering Program at Western Kentucky University*

Wilson, Stacy (USA), Matthew, Kathleen (USA)

Monday, 3:15pm - 4:45pm Capital level (Room 1B)

*Chair: Suzanne G. Brainard*

**Global Alliance Panel**

- 90 *Progress of the Global Alliance for Diversifying the Science & Engineering Workforce*

Brainard, Suzanne G. (USA), George, Yolanda S. (USA), Malcom, Shirley M. (USA), Mody, Priti N. (USA)

Monday, 3:15pm - 4:45pm Capital level (Room 2B)

*Chair: Eva Rathgeber*

**Outreach in Different Countries**

- 110 *Selected Intervention Strategies for Improving the Rates of Participation of Women in Scientific and Technological Careers*

Nyambala, Jennifer A. (Kenya)

- 141 *Impact of Promotion of Girls Participation in Science and Mathematics*

Awortwi, Sophia G. (Ghana), Addison, Lizzy-Pearl (Ghana), Andam, Aba Bentil (Ghana)

- 313 *Promotion and Retention of the Igbo Girl-Child in Nigerian Secondary Schools: A Review of Igbo Tradition and the Contributions of the Teacher Librarian*

Nwana, Rose-Eunice A (Nigeria), Akudolu, Lilian-Rita (Nigeria)

- 333 *The Promotion and Retention of Girls in Science and Technology at the Tertiary Institutions in Nigeria*

Imogie, Abigail Olu (Nigeria)

Monday, 3:15pm - 4:45pm Capital level (Room 3B)

*Chair: Gloria Bonder*

**Social Studies - Education**

- 86 *The Self-image of Girls and Their Career Planning: The Influence of Teacher's Conduct on this Self-image*

De Munter, Agnes (Belgium)

- 66 *Acknowledging Girlpower: Reconceptualising Women in Computing*

Miliszewska, Iwona (Australia), Horwood, John (Australia)

- 95 *The Critical Review, Based on the Polish and UK Education Structures, of the Application of the IT in Teaching a range of Subjects to Students with Different Abilities*

Dzwonowska, Urszula (Poland)

103 *Correlates of Fertility With Particular Reference to Female Labor Force Participation: An Analysis of Major Indian States*

Khaund Bezbaruah, Ajanta (India)

Monday, 3:15pm - 4:45pm Capital level (Room 4B)

*Chair: Rena Chenoy*

**Outreach - K to 12**

283 *Investing in Our Future*

Swenson, Jacelyn , Chenoy, Rena (Canada)

148 *Effect of Previous Participation in a Summer Science and Engineering Day Camp on High School Student Attitudes towards Science and Engineering*

Oliver, Michele (Canada), Hornosty, Jennie (Canada), Bostwick, Kate (Canada),  
Tingley, Maureen (Canada)

241 *Accomplishments of the Marianne-Mareschal Chair to Promote Engineering as an Attractive Choice of Career for Women*

Dionne, Marie-Josée (Canada), Heuzey, Marie-Claude (Canada), Lacroix, Suzanne (Canada), Bernard, Marie (Canada), Riopel, Diane (Canada)

309 *What Interests Girls in Science? A Survey of Members of the Canadian Association for Girls in Science*

Vingilis-Jaremko, Larissa (Canada), Vingilis, Evelyn (Canada)

85 *Influence of mentors and Role Models on Choice of Careers for Girls: A Situation Analysis From Ghana*

Awortwi, Sophia G. (Ghana), Andam, Aba Bentil (Ghana), Addison, Lizzy-Pearl (Ghana)

Monday, 3:15pm - 4:45pm Capital level (Room 5B)

*Chair: Hiromi Matsui*

**CCWEST Roundtable**

377 *Canadian Coalition of Women in Engineering, Science and Technology (CCWEST) Roundtable*

Armour, Margaret-Ann (Canada), Fowler, Shauna (Canada), Loshny, Helen (Canada),  
Carter, Lisa (Canada), Emerson, Carolyn J. (Canada), Schmidt, Bonnie (Canada),  
Straka, Vera (Canada), Vingilis-Jaremko, Larissa (Canada)

Monday, 4:45pm - 5:30pm Salon BFCG

**Poster (2)**

- 48 *The United States National Academy of Engineering's Program on Diversity in the Engineering Workforce*  
Layne, Peggy (USA)
- 60 *Tecnologia è Donna - Technology is Woman: WOTEC. An Affirmative Action and a European Pilot Project for Innovative and Woman-friendly Methodologies in Technical Training*  
Galassi, Vanna (Italy), Condemi, Giuliana (Italy)
- 62 *Women in (for) Engineering*  
Goes, Gudrun (Germany)
- 98 *How We Can Motivate Girls to Choose Science and Technology Field? - Questionnaire Survey for East Asian Scientists*  
Ideura, Yoshie (Japan), Miki, Shoko (Japan), Tominaga, Noriko (Japan), Kuwahara, Motoko (Japan), Moriya, Tomoko (Japan), Oshima, Mieko (Japan)
- 146 *Women Engineers in France - Latest Figures*  
Rodot, Marianne (France), Moutaud, Monique (France)
- 192 *Construction of Drug Information Databases in Japan*  
Ohta, Fukuko (Japan), Yano, Makiko (Japan), Nakamura, Yoko (Japan)
- 206 *Gender Issues in Perceptions of Science, Engineering and Technology (SET) in Young People*  
Magill, Jane (UK), Canavan, Brian (UK)
- 240 *Science Program for 25 Seventh Grade Girls*  
McCarthy, Mary B. (USA)
- 297 *Solve the Gender Gap and Save the World?*  
Francis, Helen (Canada), Espley, Samantha (Canada)
- 316 *Promoting the Genderization of the Social Sciences in Nigerian Universities*  
Okojie, Christiana E.E. (Nigeria)
- 322 *An Overview of Artificial Neural Networks Applied to Medicine*  
Ennett, Colleen M. (Canada)
- 340 *Gender Problems in Ukrainian Science*  
Taran, Nataliya (Ukraine), Svyetlova, Nataliya (Ukraine)

- 350 *Statistics on Women Scientists and Engineers from the National Science Foundation's Scientists and Engineers Statistical Data System*  
 Burrelli, Joan (USA)
- 357 *A Study of Interrelationships of Adjustment, Motivation Pattern, Occupational Aspiration and Life Satisfaction of Women in Technical Institutions*  
 Singh, Priti (India)
- 362 *Comparative Estimation of the City River Using Industrial Matrix*  
 Ando, Naomi (Japan)
- 363 *ICWE-International Congress of Women in Engineering, September 2000, 15th -17th, Braunschweig / Germany*  
 Zafeiriou, Efstratia (Germany)
- 378 *On the Role and Responsibility of Women in the Development of a Human-friendly Technology*  
 Ulieru, Mihaela (Canada), Donaldson, Lisbeth E. (Canada), Karanicolas, Cynthia (Canada)

Tuesday, 8:30am - 9:45am Congress level *Chair: Teresa Brychcy*  
(Room A)

**Affirmative Actions and Policies Panel**

- 323 *Panel Discussion on Affirmative Action Programs and Policies*

Brychcy, Teresa (Canada), Bonder, Gloria (Argentina), Chung, Kwang Hwa (Sophia) (Korea), Rees, Teresa (UK), Sevo, Ruta (USA)

Tuesday, 8:30am - 9:45am Congress level *Chair: Elaine Jolly*  
(Room E)

**Women and Health Plenary**

- 388 *Women and Health*

Bégin, Monique (Canada), Stewart, Miriam (Canada)

Tuesday, 10:15am - 11:45am Congress level *Chair: Teresa Rees*  
(Room A)

**Gender Equity & Policies**

- 173 *Practices of Similarity and Difference: Women's Career and Competence Development at a Computer Company*

- Salminen-Karlsson, Minna (Sweden)
- 276 *Equal Opportunities in Japan*  
Yamauchi, Mizue (Japan)
- 361 *Doing Gender in Industrial Organisations - An Example from a Research and Development Project at an Engineering Company*  
Rosell, Annika Vänje (Sweden)

Tuesday, 10:15am - 11:45am Congress level  
(Room E) *Chair: Elaine Jolly*

**Technical Papers - Technology and Health**

- 233 *Clinical Gait Analysis*  
Chester, Victoria (Canada), Biden, Edmund (Canada)
- 307 *The Role of Human Factors Engineering in Establishing Occupational Fitness Standards*  
Kuruganti, Usha (Canada), Rickards, Jeremy (Canada)
- 189 *Identification of Predictive Models for Treatment of Neutropenia in Post - chemotherapy Cancer Patients*  
Djokic, Tamara (Canada), Taylor, James (Canada), Frize, Monique (Canada), Scully Marie-Frances (Canada)

Tuesday, 10:15am - 11:45am Capital level  
(Room 2B) *Chair: Colleen Ennett*

**Student Discussion Roundtable**

- 373 *Student Roundtable Discussion*  
Ennett, Colleen M. (Canada), Baniassad, Elissa (Canada), Miller-Young, Janice (Canada), Sordi, Allisha (Canada), Le Clair, Brandon (Canada), Furlong, Jennifer (Canada)

Tuesday, 10:15am - 11:45am Capital level  
(Room 3B) *Chair: Maria Klawe*

**Youth Program - SWIFT Workshop**

- 258 *Effectiveness of Computer- based, Hands-on Outreach Activities in Increasing the Interest of Elementary and Secondary School Female Students in Computer Science*  
Klawe, Maria (Canada), Callas, Maria (Canada), Duplantis, Willa (Canada), MacGregor,

Eve (Canada), Ng, Michele (Canada)

Tuesday, 10:15am - 11:45am Capital level  
(Room 4B)

*Chair: Valerie Davidson*

**Outreach/Retention in Universities**

- 144 *Retaining Undergraduate Women in Science and Engineering: Model Programmatic and Evaluation Efforts*

Sharp, Sally (USA), Hathaway, Russel (USA), Davis, Cinda-Sue (USA)

- 71 *Foundation Course in Science, Engineering and Technology for Women*

Richardson, Ita (Ireland), O'Brien, Maria (Ireland), Moore, Patricia-Anne (Ireland)

- 69 *A Program that Works to Retain Women in Undergraduate Computer Science*

Polack-Wahl, Jennifer A. (USA)

- 49 *Biomedical Research Abroad: Vistas Open! (BRAVO!): Preparing Students for the International Scientific Community*

Bender, Carol (US)

Tuesday, 10:15am - 11:45am Capital level (Room 5B)

*Chair: Roberta Banaszak Gleiter*

**Global Opportunities for Women Engineers Panel**

- 375 *Panel Discussion on Breaking Barriers, Opening Doors to Global Opportunities*

Banaszak Gleiter, Roberta (USA), Grubbe, Deborah L. (USA), Hentea, Mariana (USA), Laplante, Marie (USA), Saiez, Felicita (USA), Tesciuba, Michele (France)

Tuesday, 1:15pm - 2:45pm Congress level  
(Room A)

*Chair: Barbara Muir*

**Sustainable Development**

- 102 *Value Addition and its Impact on Biodiversity Conservation: the Case of Jackie Women's Group*

Oduro, I. (Ghana), Ellis, W.O. (Ghana), Odudo, W. (Ghana)

- 212 *Preparation and Implementation of Country/Provincial Water and Sanitation Programs*

Engmann, Charlotte A. (Ghana)

- 47 *Women and Technology: Women Installing Solar Systems in Uganda*

Birabwa, Wilbrod (Uganda)

108 *Technology's Impact on Women: Some Cases of Women Engineers in the Democratic Republic of Congo*

Maboto Djuma, Astrid (Congo)

Tuesday, 1:15pm - 2:45pm Congress level  
(Room E)

*Chair: Elaine Jolly*

Technical Papers - Women and Health

67 *Protection of the Health of Women Occupationally Exposed to Unfavorable Ecological Factors is a National Task in Russia*

Nechitailo, Galina (Russia)

187 *An Epidemiological Study on the Health Status of Sawmillers in Benin City, Nigeria*

Obehi, Okojie (Nigeria)

164 *Psychological Disorder and Job Satisfaction Among Nurses at a Teaching Hospital in Nigeria*

Ofili, Antoinette (Nigeria), Ogbeide, Osafu (Nigeria), Isah Essy, Clementina (Nigeria), Asuzu, Michael C. (Nigeria)

Tuesday, 1:15pm - 2:45pm Capital level (Room 2B)

*Chair: Betty Preece*

Reports on World View of Women in Engineering Panel

270 *A Panel Reports on a World View of Women in Engineering*

Preece, Betty (USA), Longworth, Jackie (U.K.), Kazuno, Mitsuko (Japan), Jamil, Kaiser (Italy), Mbi, Christiana (Cameroon)

Tuesday, 1:15pm - 2:45pm Capital level  
(Room 3B)

*Chair: Margaret-Ann Armour*

Youth Program - WISEST Workshop

45 *Some Influences on Young Women's Interest in a Science Career*

Madill, Helen (Canada), Armour, Margaret-Ann (Canada), Stewin, Leonard L. (Canada), Cicciocoppo, Anna-Lisa (Canada), Montgomerie, Craig T. (Canada), Fitzsimmons, George W. (Canada)

Tuesday, 1:15pm - 2:45pm Capital level (Room 4B)

*Chair: Marianne Rodot*

**Retention in Science, Mathematics and Engineering**

- 271 *An Investigation of the Current Barriers for Women Students in Faculties of Engineering in Ontario and Initiated Actions*

Wharton, Etta (Canada), Surry, Jean (Canada)

- 53 *Promoting Change Through Faculty Self Assessment: The Results of an Initial Survey*

Bartolemei-Suarez, Sonia M. (Puerto Rico), Cesani-Vazquez, Viviana I. (Puerto Rico), Irizarry, Maria A. (Puerto Rico), Santos, Jeanette (Puerto Rico), Toledo-Feria, Freya M. (Puerto Rico)

- 274 *The Shortfall of Female Mathematics Lecturers in Nigerian Universities: Strategies for Promotion and Retention of Prospective Female Mathematics Lecturers*

Alutu, Grace (Nigeria), Eraikhuemen, Lucy (Nigeria)

- 153 *Working From Home - A New Opportunity for Engineers? (Travail à domicile : une nouvelle opportunité pour les ingénieurs?)*

Rubio, Valérie (France), Grosjean, Sylvie (France), Marchais, Elodie (France), Rodot, Marianne (France)

Tuesday, 1:15pm - 2:45pm Capital level (Room 5B)

*Chair: Gloria Montano*

**American and Canadian Outreach Experiences  
Panel**

- 176 *Extending the Vision and Impact: Canadian and U.S. STEM Outreach Experiences*

Montano, Gloria (USA), Emerson, Carolyn J. (Canada), Murrin, Faye (Canada), Nelson, Nancy (USA), Simonson, Pat (USA)

Wednesday, 8:30am - 10:00am Congress  
level (Room E)

*Chair: Wendy Cukier*

**Gender & Information Technology Panel**

- 337 *Gender and Information Technology: A New Look at an Old Problem*

Cukier, Wendy (Canada), Shortt, Denise (Canada), Bolender, Anne (Canada)

Wednesday, 8:30am - 10:00am Capital level  
(Room 2B)

*Chair: Isabelle Fortier*

*Co-Chair: Suzelle Barrington*

**Reflexion and Actions in Québec Roundtable**

- 325 *Des réflexions et des actions pour stimuler les femmes à poursuivre des carrières en*

sciences et en génie au Québec

Fortier, Isabelle (Canada), Dionne, Marie-Josée (Canada), Lafortune, Louise (Canada), Solar, Claudie (Canada), Thibault, Anne (Canada), Van Coillie-Tremblay, Brigitte (Canada), Deschênes, Claire (Canada)

Wednesday, 8:30am - 10:00am Capital level  
(Room 3B)

*Chair: Bonnie Schmidt*

**Youth Program - Let's Talk Science Workshop**

72 *Building Life Skills Through Science Education*

Allison, Derek (Canada), Allison, Patricia (Canada), Schmidt, Bonnie (Canada), Clarke, Cailin (Canada)

Wednesday, 8:30am - 10:00am Capital level  
(Room 4B)

*Chair: Jennifer Docker*

**MentorNet Panel**

266 *Mentoring Diverse Populations: Experiences from MentorNet*

Muller, Carol B. (USA), Dockter, Jennifer (USA), Ryan-Alapati, Marci (USA), Muelller, Sigrid (USA)

Wednesday, 8:30am - 10:00am Capital level  
(Room 5B)

*Chair: Peggy Oti-Boateng*

**Agriculture in Developing Countries**

281 *Jatropha Oil as a Diesel Substitute for Women in Food Processing in Africa*

Oti-Boateng, Peggy (Ghana), Donkor, Peter (Ghana)

80 *Gender and Work In the Herding Community*

Batmunkh, L. (Mongolia)

135 *Women Cooperative Societies and Acess to Productive Ressources in Three Local Government Areas of Edo State, Nigeria*

Alufohai, G.O. (Nigeria), Ilavarbarhe, K.O. (Nigeria)

Wednesday, 10:15am - 11:45am Congress level *Chair: Jane Zimmer Daniels*  
(Room E)

**Resources for and from Women in S&E Workshop**

311 *Obtaining Resources FOR and FROM Women in Science and Engineering*

Zimmer Daniels, Jane (USA), Staffin Metz, Susan (USA)

Wednesday, 10:15am - 11:45am Capital level *Chair: Judie Forbes*  
(Room 2B)

**Portfolio Careers in Engineering Panel**

59 *Portfolio Careers in Engineering: A Panel of Experience*

Forbes, Judie (USA), Kratsios, Melody (Canada), Elleboudy, Azza M. (Egypt)

Wednesday, 10:15am - 11:45am Capital level *Chair: Nan Armour*  
(Room 3B)

**The Hypatia Project Workshop**

235 *The Hypatia Project: Eliminating Systemic Barriers for Women in Science and Technology*

Armour, Nan (Canada), Barkhouse, Peggy Lee (Canada), Niven, Sherry (Canada), Parsons, Doreen (Canada), Sewell, Rhonda (Canada)

Wednesday, 10:15am - 11:45am Capital level *Chair: Carolyn J. Emerson*  
(Room 4B)

**Professional Development - Negotiation Skills and Strategies Workshop**

161 *Workshop - Career Success: Skills and Strategies*

Emerson, Carolyn J. (Canada), Williams, F. Mary (Canada)

Wednesday, 10:15am - 11:45am Capital level *Chair: Gloria Montano*  
(Room 5B)

**Women and Technology**

104 *Women's Access to Technology - The Widening Gaps*

Nyambala, Catherine A. (Kenya)

165 *Women and Technology Citizenship*

Montano, Gloria (USA)

87 "Body Work" : *The In-Corporation of Medical Technology by Nurses*

Toman, Cynthia (Canada)

101 *Breadfruit, The Neglected Fruit In Ghana*

Oduro, I. (Ghana), Ellis, W.O. (Ghana), Johnson, W (Ghana), Aryee, F.N.A. (Ghana)