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# Steven E. Franklin

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## CURRICULUM VITAE

1 January 2010

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## SHORT BIOGRAPHY

In July 2009 I began a five year term as President and Vice-Chancellor of Trent University, in Peterborough, Ontario. Previously, I served as Vice-President Research at the University of Saskatchewan, and held academic appointments at University of Calgary, Memorial University of Newfoundland, and University of Waterloo. An interdisciplinary environmental scientist, my contributions are in the application of satellite and aerial remote sensing to terrain analysis and environmental management. This research is funded by NSERC Discovery and Collaborative Research and Development Awards, and numerous partner organizations, including the Foothills Research Institute, Parks Canada, and the Canadian Forest Service. Publication highlights include more than 125 peer-reviewed journal articles, two books with CRC Press, and the new McGraw-Hill Professional title "*Remote Sensing for Biodiversity and Wildlife Management: Synthesis and Applications*".

## UNIVERSITY EDUCATION AND SCHOLARSHIPS

Doctor of Philosophy, *Environmental Remote Sensing*, University of Waterloo, 1985.

Master of Arts, *Physical Geography*, University of Waterloo, 1982.

Bachelor of Environmental Studies (*Honours Geography*), University of Waterloo, 1980.

Diploma, *Forest Management*, Lakehead University, 1976.

### Scholarships and Awards

NSERC Postdoctoral Fellowship, Geography/Earth Science, Memorial University, 1985

NSERC Postgraduate Scholarship, University of Waterloo, 1981-1984

AUCC International Scholarship, Geophysical Institute, University of Bergen, 1981

Ontario Graduate Scholarship, University of Waterloo, 1980

Dean's Honour List, University of Waterloo, 1979-1980

NSERC Undergraduate Summer Research Award, University of Waterloo, 1979

## APPOINTMENTS

### Professional

Professor, Geography/Environmental and Resource Science/Studies, Trent University, 2009-

Professor, Geography/Planning/Environment and Sustainability, University of Saskatchewan, 2003-2009 (Adjunct 2009-2014)

Professor, Geography, University of Calgary, 1995-2003 (Adjunct 2003-2006)

Associate Professor, Geography, University of Calgary, 1991-1995

Assistant Professor, Geography, University of Calgary, 1988-1991

Assistant Professor, Geography, Memorial University of Newfoundland, 1985-1988

Sessional Lecturer, Environmental Studies, University of Waterloo, 1984-1985

Research Analyst (Programmer), Ontario Centre for Remote Sensing, 1981-1982

Resource Technician (Field), Ontario Ministry of Natural Resources, 1976-1978

## **Administrative**

President and Vice-Chancellor, Trent University, 2009-  
Vice-President Research, University of Saskatchewan, 2003-2009  
Special Assistant to the Provost and Vice-President (Academic), University of Calgary,  
2001-2003  
Associate Dean Research, University of Calgary, 1998-1999  
Head, Department of Geography, University of Calgary, 1995-1998  
Graduate Coordinator, Department of Geography, University of Calgary, 1991-1994

## **Visiting (Sabbatical)**

Visiting Professor, Spatial Sciences, Curtin University of Technology, 2008  
Visiting Professor, Geography, University of California-Santa Barbara, 2000  
Visiting Professor, Forest Science, Oregon State University, 1994

## **CAREER HIGHLIGHTS**

### **Strategic Leadership Roles**

As President and Vice-Chancellor, I have overall responsibility for all aspects of leadership, administration and management at Trent University.

I have served on numerous committees at four universities and have played a key role in strategic decision-making across virtually all aspects of the university. Selected highlights include:

- Responsible for changing the academic culture and facilitating the strategic directions of the university with new initiatives focussed on the student experience, community-based research, industry liason, and strategic partnership development;
- Represented and promoted the university's research achievements and capabilities in provincial, national and international arenas;
- Fostered innovation and inter- and multi-disciplinary collaborations, research partnerships and research groups;
- Celebrated and championed research, scholarly and artistic activities both within and outside the institutional setting;
- Oversight of the management of the university's research enterprise including policy development and administration, intellectual property management, and promotion of knowledge transfer activities;
- Management of research centres and the CRC, Indirect Costs, and CFI programs, and their provincial counterparts (e.g., ISF);
- Led a team of senior academics and administrators and introduced departmental, faculty-specific, and then university-wide initiatives on curriculum change, inquiry-based learning, and research opportunities for undergraduates;
- Facilitated a new 'direct entry' process for undergraduate admissions;

- Developed a new *Research Seminar Series*, specifically to introduce undergraduate students to the benefits of research and research infrastructure;
- Led an intensive *Dialogue Series* (at the Learning Commons) with sessions devoted to a wide variety of issues, including ‘Academic Advising’, ‘Information Literacy’, ‘Teaching Large Classes Effectively’, ‘The Explicit Syllabus’, ‘Increasing Internationalization’, and ‘Evaluation of X-Based-Learning’;
- Responsible for the management of research units and groups, funding and support programs, policy and research publications, and administrative functions such as research ethics workshops and graduate student funding;
- Contributed to an ‘institution-wide research strengths’ document, which was later influential in a formal university-level policy statement (*Strategic Research Plan*);
- Led a senior administrator/academic team focussed on marketing, communications, and management of critical information on student retention, recruitment, and university image (reputational) issues.

### **Integrated Planning, Setting Priorities, and Engagement**

A key participant in all aspects of the development of integrated planning and multi-year budget frameworks, which are useful in identifying strategic priorities for universities and developing action plans – selected key documents have included:

- *Strategic Transformation Positioning and Marketing Study (1999)*
- *Enhancing Undergraduate Learners’ Experience Project (2001)*
- *Research, Scholarly and Artistic Work Foundational Document (2003)*;
- *Subcommittee Report on Enhancing Undergraduate Research (2004)*;
- *Extending Horizons: The Research Landscape (2005)*;
- *Measuring Success and the Way Forward (2006)*;
- *Strategic Project Team Development and Multi-year Integrated Plans (2003, 2007)*.

### **Building the University**

Responsible for administrative leadership and strong vision to build modern research infrastructure and organization in key priority areas:

- New infrastructure and academic governance in research institutes (examples include Vaccine and Infectious Disease Organization, Aquatic Toxicology Centre, Feed Technology/Grains Innovation Lab, Structural Sciences Centre, IPHRC, Aboriginal Education Research Centre, research groups and other members of the Centres Forum at the University of Saskatchewan);
- Increased awareness and commitment to funding priorities (e.g., Tri-council and industry funding) and measures of success;
- Developed successful research administration strategies (e.g., mentoring);

- Introduced new management for the development of private sector and government partnerships related to commercialization;
- Fostered a research strategy that built on existing and new partnership opportunities (including research parks, other universities, government agencies, and private sector participants);
- Led coordinated missions (research, student recruitment, alumni engagement) nationally and internationally (e.g., USA, China, Australia and India), and shaped subsequent policy development on strategic countries and the role of international research grant facilitators;
- Worked with provincial representatives and federal agencies on specific projects ranging from research-intensive institutes (e.g., InterVac/VIDO) to broadly-based academic initiatives (e.g., Academic Health Sciences Centre, School of Public Health, School of Environment and Sustainability, Global Institute for Energy, Environment and Natural Resources);
- Assumed programmatic, managerial and fiscal responsibilities, and implemented action on department- and faculty-level issues – for example:
  - A major renovation of the faculty-level computing resources in collaboration with the IT Division;
  - New departmental teaching spaces constructed (Anthropology, Psychology, Linguistics, and Geography departments);
  - Introduced a new emphasis in budget submissions on experiential learning;
  - Led an initiative to develop the faculty-wide research profile and work with alumni through external partners and key relationships;
  - Dealt with significant issues at the department level, such as
    - 17% budget cut across the board in three years
    - worked successfully for reinvestment in priority areas including *Geographical Information Systems*;
    - implemented a curriculum review and ‘redesign’ to build on the department offerings;
    - renewed field course offerings to help turn around enrolment challenges;
    - introduced new undergraduate degree programs that increased collaborative and constructive engagement with cognate disciplines;
    - hired and mentored new faculty and staff appointments as the department grew by 25%;
    - transformed the graduate program (e.g., new guidelines for Ph.D. Candidacy exams, and the introduction of the new, one-year, course-based MGIS program).

## UNIVERSITY SERVICE

### Administrative Service at Trent University

Trent University Board of Governors (*ex officio*, voting) 2009-

Faculty Council (chair) 2009-  
Senate (chair) 2009-  
President/Vice-President Executive Committee (chair) 2009-  
Vision Renewal Review Committee (chair) 2009-  
Board Member: GPAEDC Innovation Cluster  
Search Committees: Provost and Vice-President Academic (2010)

### **Administrative Service at University of Saskatchewan**

University Council 2003-2008  
University Senate 2003-2008  
Board of Governors (resource officer) 2003-2008  
President's Executive Committee 2003-2008  
President's Advisory Committee 2003-2008  
Provost's Committee on Integrated Planning 2003-2008  
Planning and Priorities Committee of Council 2003-2008  
Research, Scholarly and Artistic Work Committee of Council 2003-2008  
Associate Deans Research Forum (chair) 2003-2008  
University Centres Forum (chair) 2003-2008  
Dean's Council 2003-2008  
CFI Advisory Committee (chair) 2003-2008  
Indirect Costs Advisory Committee (chair) 2003-2008  
CRC Oversight Committee (co-chair) 2003-2008  
Board Member (Internal): Vaccine and Infectious Disease Organization, Prairie Swine Centre, Structural Sciences Centre (chair), Canadian Light Source (vice-chair 2003-2007), Sask. Drug Research Institute (chair), UST Inc. (chair), Saskatchewan Institute for Public Policy  
Board Member (External): TRILabs, NCE (AFMNet, PrioNet, CWN), Pharmalytics Inc.  
Executive Sponsor (Major Projects)/Steering Committee: InterVac, USR-Net, Toxicology Aquatic Research Centre, Pulse Crop Research Lab, Feed Technology Research Centre, School of Environment and Sustainability, Mineral Research Centre, Early Stage Incubator/Research Transition Facility, High Performance Computing Research Centre, Grains Innovation Lab, Dairy Research Facility  
Task Force Responsibilities: Presidential Task Force on VIDO Governance (chair 2004-2005), Changing Structures Task Force (2005-2006), Task Force on the University of Saskatchewan Press (2006), Task Force on the Management of Centres (2006), Task Force on Campus-wide GIS Needs (2007), Task Force on Communications (2007), Land-use Task Force (2007), Strategic Projects/Partnerships (2008)  
Senior Search/Review Committees: Dean of Arts and Science (2008), Dean of Medicine (2006), Dean of Graduate Studies and Research (2006), Associate Vice-President Research (Health)/Vice-President Research and Innovation (Saskatoon Health Region) (2006), Associate Vice-President Research (2004), Director of Research Services (2003, 2008), Managing Director of Industry Liaison (2003, 2008)  
University of Saskatchewan Alumni/Campaign Events: New York/Boston (2005), Ottawa (2006), Saskatoon (2006 Homecoming), Melbourne/Perth (2006)

## Administrative Service at University of Calgary

Faculty Tenure and Promotion Committee 1995-1999, 2000-2002  
Dean's Advisory Committee 1995-1999 (Acting Dean, Nov-Dec 1998, May 1999)  
Faculty of Social Sciences Planning Committee 1998-1999  
Faculty of Graduate Studies Council 1991-1994, 1998-1999  
Scholarly Integrity Committee 1998-1999  
Associate Deans (Research) Forum 1998-1999  
Technical Support Staff Committee 1998-1999  
Faculty of Social Sciences Executive Council 1991-1993; 1995-1999  
University Animal Welfare Committee 1998-1999  
TriFaculty Computer Lab Committee 1998-1999  
Building Space Study Subcommittee 1999  
Research Strengths Evaluation Committee 1999  
Faculty Y2K Committee 1999  
Partnership Program Advisory Committee 1999  
Supporting Faculties Advisory Committee, Cultural Diversity Institute 1999  
Advisory Review Committee – Director of Research Services 1999  
General Faculties Council (elected member) 1995-1998  
University Planning Committee 1997-1998  
University Budget Committee 1997-1998  
Strategic Transformation Institutional Positioning Redesign Team (Leader) 1997  
Faculty Search Committees 1991-1998  
    Remote Sensing (chair)  
    Geographical Information Systems (chair)  
    Earth Science (chair)  
    Geomorphology (chair)  
    Methods (chair)  
    Social Geography  
    Latin America Region  
    Environmental Science  
Academic Program Review Committee 1992-1993; 1995-1996  
Access Fund Proposal Committees 1993-1999  
    Renovations and Capital Equipment  
    B.Sc. Earth Science  
    B.Sc. Environmental Science  
    Transportation Theme School  
    Master of Geographical Information Systems  
Dept. Graduate Selection Committee 1988-1990, 1991-1995 (chair), 2001-2002  
Dept. Graduate Program Review Committee (chair), 1995-1997  
User Committee, Kluane Lake Research Station 1989-1994  
Advisory Review Committee - Dean of Graduate Studies 1993  
Board of Directors, Kananaskis Field Stations 1993-1996  
University Informatics Committee 1993-1995  
Travel Study Advisory Committee, Faculty of Continuing Education 1996-1997  
*Co-Organizer*, Dept. Graduate Student Conference 1992

*Co-Editor*, Dept. Graduate Student Conference Proceedings 1992  
Undergraduate Advisor 1988-1995  
Dept. Planning and Priorities Committee 1989-1992  
Selection Committee, Northern Science Training Program, 1990-1992  
Joint Faculties Research Ethics Committee 1989-1993

### **Administrative Service at Memorial University of Newfoundland**

Presidential Working Group on Remote Sensing (chair) 1987-1988  
*Associate Director*, Memorial University Cartographic Laboratory 1985-1987  
New Faculty Search Committee 1987 (Geomorphology)  
Undergraduate Program Committee 1986  
Faculty of Arts Computing Committee 1985

### **Participation in New Academic Program Development**

Master of Sustainable Environmental Management 2008 (course-based program)  
Master of Geographical Information Systems 1999 (course-based program)  
B.Sc. Environmental Science 1997 (joint degree with Biology, Chemistry, Geology, Physics, Geography)  
B.Sc. Earth Science 1996 (joint degree with Archaeology, Geology, Geography)  
B.A. International Relations 1995 (joint degree; multiple social science departments)

## **PROFESSIONAL ACTIVITY**

### **Executive Responsibilities**

*Past-Chairman*, Canadian Remote Sensing Society 1997-1999  
*Executive*, Canadian Aeronautics and Space Institute 1995-1997  
*Chairman*, Canadian Remote Sensing Society 1995-1997  
*Executive Vice-Chairman (National)*, Canadian Remote Sensing Society 1994-1995  
*Executive Vice-Chairman (Prairies)*, Canadian Remote Sensing Society 1990-1994

### **Editorial Responsibilities**

*Associate Editor*, Canadian Journal of Forest Research 2000-2003  
*Editorial Advisory Board*, Computers & Geosciences 1996-1999  
*Guest Editor*, Special Issues, Canadian Journal of Remote Sensing, 1991, 1995, 1996  
*Associate Editor*, Canadian Journal of Remote Sensing 1991-1996

### **Conference and Workshop Responsibilities**

Chair, National Vice-President Research Forum, Conference Board of Canada, Ottawa, 2008  
Ad hoc Organizing Committee Member, Conference Board of Canada National Meeting of Vice-Presidents Research, Ottawa, 2007

Co-organizer, WestVPR Annual Meeting, Victoria, 2005  
Chair, Grizzly Bear Environmental Stress and Health Workshop, Saskatoon, 2004  
Chair, Linking Biodiversity/Habitat/Geospatial Technologies Workshop, Calgary, 2002  
Member, Alberta Grizzly Bear Research Project Science Advisory Committee, 1999-2003  
Member, Alberta Forest Biodiversity Monitoring Technical Committee, 1998-2001  
Member, Conference Committee, 19th Canadian Symposium on Remote Sensing, Ottawa, 1997  
Member, Conference Committee, 18th Canadian Symposium on Remote Sensing, Vancouver, BC, 1996  
Member, International Cartographic Association Commission on Thematic Mapping, 1993  
Member, Scientific Committee, 16th Canadian Symposium on Remote Sensing, Sherbrooke, Quebec, 1993  
Member, Education Advisory Committee, Radarsat International Inc., 1992  
Chair, Technical Committee, 14th Canadian Symposium on Remote Sensing, Calgary, 1991  
Session Chair, WCAG Annual Meeting, Banff, 1991  
Member, Board of Directors, Alberta Remote Sensing Centre, 1989-1990  
Member, Royal Society Working Group on Global Change, 1990  
Session Chair, CAG Annual Meeting, Edmonton, 1990  
Member, Maritime Remote Sensing Committee, 1985-1988  
Chair, LI-2000 Workshop on Digital Mapping, St. John's, 1987  
Moderator, ACSM Annual Meeting, Washington, D.C., 1986

### **Selected International Activities**

International Delegations and Trade Missions  
Western Europe (2004) – Industry and Resources  
China (2005, 2007) – Research, Recruitment, Partnership Development  
Eastern/Midwestern USA (2005) – Industry and Resources  
USA/Canada (2006) – Technology Transfer and Commercialization  
Australia (2006) – Industry and Resources  
India (2007, 2008) – Research, Recruitment, Biofuels Initiative  
Canada-California Research Summit: Los Angeles (2006)  
University First Year Experience: Stanford/Bath/Toronto (2001)  
GlobeSAR University Program: Argentina (1997), Colombia (1998)  
Royal Society of Canada, NASA Observer: Oregon (1991), Maine (1992)

### **Recent Professional Development**

AUCC New Presidents Professional Program, 2010  
Executive Leadership Course, Queen's University, 2007  
Senior University Administrator Course (University of Manitoba), 2004  
Media Training Workshop, University of Saskatchewan Communications, 2003

**Reviewer/Referee**

- International Journal of Remote Sensing
- Computers & Geosciences
- Arctic
- Canadian Journal of Remote Sensing
- NATO Advanced Study Institute
- NASA Land Processes Branch
- John Wiley/T&F (Publishers)
- Mathematical Geology
- The Professional Geographer
- Canadian Journal of Forest Research
- Ecoscience
- Australian Academy of Technological Sciences and Engineering
- IEEE Transactions on Geoscience and Remote Sensing
- International Journal of Geographical Information Science
- Photogrammetric Engineering and Remote Sensing
- promotion/tenure references for individuals, and program reviews, at more than 25 universities and national and international government agencies
- Remote Sensing of Environment
- Canadian Geographer
- Journal of Vegetation Science
- Canadian Symposia on Remote Sensing
- National Science Foundation
- NERC (UK), NSERC, SSHRC, FCAR
- Ecological Applications
- Canadian Water Resources Journal
- Forest Science
- National Geographic Society
- CSIRO Forest Products, Land & Water

**Professional Recognition**

Canadian Remote Sensing Society Gold Medal, 2007  
 Sustainability Award, Canadian Institute of Mining, Metallurgy and Petroleum, 2007  
 Canadian Forest Service Merit Award (Collaboration and Partnership), 2006  
 Alberta Emerald Foundation Excellence Award (Research and Innovation), 2005  
 Elected Fellow, Canadian Aeronautics and Space Institute, 2004  
 Faculty Distinguished Researcher Award, University of Calgary, 2002  
 Best Paper Award, 22<sup>nd</sup> Canadian Symposium on Remote Sensing, 2000  
 Associate Fellow, Canadian Aeronautics and Space Institute, 1997  
 Chairman's Award, Canadian Remote Sensing Society, 1992

**SUPERVISION AND TEACHING****Postdoctoral Fellow Supervision**

Dr. Yuhong He, Remote Sensing Applications, 2009 (now at University of Toronto)  
 Dr. John Barlow, Geomorphology, 2007 (now at Durham University)  
 Dr. Greg McDermid, Remote Sensing Applications, 2005 (now at University of Calgary)  
 Dr. Falk Huettmann, Wildlife Management, 2002 (now at University of Alaska)  
 Dr. Elizabeth Dickson, Biodiversity, 1999  
 Dr. Robert Price, Remote Sensing Physics, 1995

**Supervisor, Co-supervisor (C), or Mentor (M)***Student**Program, research area, year completed*

Kai Wang (C)	Ph.D., Next-generation Satellite Data Fusion, continuing
Dennis Duro (C)	Ph.D., Remote Sensing Riparian Applications, continuing
Julia Linke (M)	Ph.D., Wildlife Habitat Fragmentation, 2009
Adam Collingwood	M.Sc., Mapping Agricultural Land Cover, 2008
Alysha Pape	M.Sc., Grizzly Bear Habitat Change Detection, 2007
John Barlow (C)	Ph.D., Automated Landslide Inventory, 2006
Ame Wunderle	M.Sc., Forest Age and Regeneration Survey, 2006
Helton Fan	M.Sc., Spruce Budworm Defoliation Mapping, 2006
Greg McDermid (M)	Ph.D., Large-area Habitat Mapping, 2005
P. Kirk Montgomery	M.Sc., Historical Landscape Analysis, 2004
Julia Linke	M.Sc., Grizzly Bear Landscape Structure and Use, 2003
Michael Chubey	M.Sc., Object-oriented Image Classification, 2003
Christopher Jagielko	MGIS, Sensitivity of Temporal Change Detection, 2003
Robert Skakun	MGIS, Mountain Pine Beetle Detection, 2002
Chengqian Zhang	M.Sc., Geospatial Forest Texture Analysis, 2001
Charlene Popplewell (C)	M.Sc., Grizzly Bear Habitat Structure Metrics, 2001
Graham Gerylo	M.Sc., Northern Forest Classification, 2000
L. Monika Moskal	M.Sc., Multi-story Forest Mapping, 1999
Alan Maudie	M.Sc., Mixed-Forest Texture Analysis, 1999
Michael Wulder (M)	Ph.D., Optical Remote Sensing of Forests, 1998
Medina Hansen (C)	M.Sc., Caribou Habitat and Landscape Ecology, 1998
Bradley Wilson	Ph.D., Radar Remote Sensing of Forest Structure, 1997
Michael Getty (C)	M.Sc., Field and Aerial Ecological Surveys, 1997
Michael Wulder (M)	M.E.S., Forest Leaf Area Index Estimation, 1996
Thomas McCaffrey (C)	M.Sc., Topographic Normalization, 1996
Phillip Giles	Ph.D., Classification of Slope Units, 1996
Charlotte Ow	M.Sc., Fuzzy Set Image Classification, 1995
Geoff Ghitter	M.Sc., Conifer Understorey Detection, 1995
Douglas Connery	M.Sc., Avalanche Vegetation Mapping, 1994
Greg McDermid	M.Sc., Remote Sensing of Hill Slope Processes, 1993
Joan Williams	M.Sc., Alpine Vegetation Classification, 1992
Derek Peddle	M.Sc., Evidential Reasoning Classifier, 1991
Bradley Wilson	M.Sc., DEM Data in Mountain Areas, 1990
Clayton Blodgett	M.Sc., Data Fusion for Vegetation Mapping, 1990
Joan Moulton	M.Sc., Terrain Analysis and Classification, 1989 (Winner of the Governor-General's Gold Medal)

### **Honours Students and Senior Undergraduate Research Assistants**

Amanda Davies	B.Sc. Planning/Environmental Studies, 2007
Anita Schnorr	B.Sc. Environmental Science, 2005
David Couroux	B.Sc. Honours Environmental Science, 2003
Alysha Pape	B.Sc. Honours Geography, 2001
Miriam Presutti	International Student (Soil Science), 1999
Maarit Siira	International Student (Geology), 1999

Elena Possada	International Student (Forestry), 1998
Graham Gerylo	B.Sc. Honours Geography, 1997
Ronald Peart	B.Sc. Honours Geography, 1996
Karen Boida	B.Sc. Geography 1995
Michael Wulder	B.Sc. Honours Geography, 1995
Meredith O'Connor	B.Sc. Honours Geography, 1994
Alastair Fish	B.Sc. Geography, 1993
Julie Kelsey	B.Sc. Geography, 1992
Greg McDermid	B.Sc. Honours Geography, 1991
Thomas McCaffrey	B.Sc. Honours Computer Science and Geography, 1990
Steven Mah	B.Sc. Honours Geography, 1990
Laurie Davis	B.Sc. Honours Geography, 1987
William Jones	B.Sc. Geology, 1987
Derek Peddle	B.Sc. Honours Computer Science and Geography, 1986
Joan Moulton	B.Sc. Honours Geography, 1986

### **Examiner and Committee Member**

#### *Internal*

Yuhong He	Ph.D. Geography, 2008
Selena Black	M.Sc. Geography, 2006
Ayo Adediran	Ph.D. Cand. Geography, 2004
Scott Steeby	MGIS (course-based), 2002
T. Todorev	M.Sc. Geophysics, 2000
John Kansas	M.Sc. Resources and Environment, 1999
Simon Bridge	M.Sc. Ecology, 1997
H. Ebadi	Ph.D. Geomatics Engineering, 1997
G. Larson	M.Sc. Geophysics, 1996
D. Wang	M.Sc. Geomatics Engineering, 1995
John Pedersen	M.Sc. Geography, 1995
Richard Pagarro	M.Sc. Geomatics Engineering, 1994
Gongshen Shi	M.Sc. Geomatics Engineering, 1994
Ayrong Zhang	M.Sc. Geomatics Engineering, 1994
Harry Jol	Ph.D. Geography, 1993
Solomon Koimet	M.Sc. Geomatics Engineering, 1993
Wayne Bessie	M.Sc. Ecology, 1993
Chakrit Sukaramongkol	M.Sc. Geophysics, 1993
Scott Finlayson	Ph.D. Biological Sciences, 1993
Karen Kane	Ph.D. Cand. Geography, 1993
K. He	Ph.D. Geomatics Engineering, 1993
John Varsek	Ph.D. Geophysics, 1992
Elly Sudibjo	Ph.D. Surveying Engineering, 1992
M. Elizabeth Cannon	Ph.D. Surveying Engineering, 1991
Dana Wowchuk	M.Sc. Ecology, 1991
Brian Moorman	M.Sc. Geography, 1990

Ashley Tam	M.Sc. Surveying Engineering, 1990
Kenneth Wong	M.Eng. (course-based) Surveying Engineering, 1990
Sandra Halliday	M.A. Geography, 1986

*External*

Janne Heiskanen	Ph.D. University of Helsinki, 2007
P. Van Laake	Ph.D. University of Alberta, 2004
Kevin Yeong	Ph.D. University of Regina, 1996
John MacDonald	Ph.D. Simon Fraser University, 1995
Geshe Schmid-McGibbon	Ph.D. University of Alberta, 1993
Minhua Wang	Ph.D. University of Waterloo, 1993

**Courses Taught**

*Undergraduate courses (number of offerings):*

The Physical Environment (6) (team-taught)  
Analytical Cartography (4)  
Aerial Photo-interpretation (12)  
Mapping and Remote Sensing (10)  
Introduction to Earth Science Field Course (2) (team-taught)

*Senior undergraduate/Graduate courses (number of offerings):*

Environmental Remote Sensing (12)  
Spatial Modelling and Image Analysis (5)  
Remote Sensing in Ecology Field Course (11) (team-taught)  
GIS in Environmental Science Field Course (5) (team-taught)

**PUBLICATIONS**

**Book Publications**

Franklin, S. E., 2010, *Remote Sensing for Biodiversity and Wildlife Management: Synthesis and Applications*, McGraw-Hill Professional, New York, 346p.

Franklin, S. E., 2001, *Remote Sensing for Sustainable Forest Management*, CRC Press (Lewis), Boca Raton, FL, 407p.

**Edited Books**

Wulder, M. A., and S. E. Franklin, eds., 2007, *Understanding Forest Disturbance and Spatial Pattern: Remote Sensing and GIS Approaches*, CRC Press (Taylor and Francis), Boca Raton, FL, 252p.

Wulder, M. A., and S. E. Franklin, eds., 2003, *Remote Sensing of Forest Environments: Concepts and Case Studies*, Kluwer Academic Publishers, Boston, MA, 519p.

### Journal Publications

He, Y., S. E. Franklin, X. Guo, and G. B. Stenhouse, 2010, Narrow-linear and small-area forest disturbance detection and mapping from high spatial resolution imagery, *Journal of Applied Remote Sensing*, in press.

Franklin, S. E., Y. He, A. D. Pape, X. Guo, and G. J. McDermid, 2009, A quantitative comparison of SPOT and ASTER imagery for replacing Landsat in large-area mapping programs, *International Journal of Remote Sensing*, in press.

Wang, K., S. E. Franklin, X. Guo, Y. He, and G. J. McDermid, 2009, Problems in remote sensing of landscapes and habitat, *Progress in Physical Geography*, 33(6): 747-768.

Collingwood, A., S. E. Franklin, X. Guo, and G. Stenhouse, 2009, A medium-resolution remote sensing classification of agricultural areas in Alberta grizzly bear habitat, *Canadian Journal of Remote Sensing*, 35(1): 23-36.

Linke, J., G. J. McDermid, A. D. Pape, A. J. McLane, D. N. Laskin, M. Hall-Beyer, and S. E. Franklin, 2009, The influence of patch delineation mismatches on multi-temporal landscape pattern analysis, *Landscape Ecology*, 24(1): 157-170.

Linke, J., D. N. Laskin, G. J. McDermid, A. D. Pape, A. J. McLane, J. Cranston, M. Hall-Beyer, and S. E. Franklin, 2009, A disturbance-inventory framework for flexible and reliable landscape monitoring, *Photogrammetric Engineering and Remote Sensing*, 75(8): 981-995.

McDermid, G. J., R. J. Hall, G. A. Sanchez-Azofeifa, T. Kobliuk, S. E. Franklin, G. B. Stenhouse and E. F. LeDrew, 2009, Remote sensing and forest inventory for wildlife habitat assessment, *Forest Ecology and Management*, 257: 2262-2269.

Barlow, J., Y. Martin, and S. E. Franklin, 2009, Characterizing debris slide occurrence using digital data: paraglacial activity in Chilliwack Valley, British Columbia, *Canadian Journal of Earth Science*, 46(3): 181-191.

Wunderle, A., S. E. Franklin, and X. Guo, 2009, Texture analysis of SPOT-5 pan-sharpened data for western cedar forest age classifications in British Columbia, *Geocarto International*, 24(1): 47-64.

Franklin, S. E., H. Fan, and X. Guo, 2008, Relationship between Landsat TM and SPOT vegetation indices and cumulative spruce budworm defoliation, *International Journal of Remote Sensing*, 29(4): 1215-1220.

- Barlow, J., and S. E. Franklin, 2008, Mapping avalanche chutes in the Canadian Rockies with Landsat TM and DEM data, *Canadian Journal of Remote Sensing* 34(5): 516-525.
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- Barlow, J., and S. E. Franklin, 2007, Mapping slope processes using satellite remote sensing and DEM techniques, *Joint CIG/ISPRS Conference on Geomatics for Disaster and Risk Management*, Toronto, on CD.
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### **Technology Transfer Notes and Technical Non-Refereed Publications**

Wulder, M. A., S. E. Franklin, R. S. Skakun, and C. C. Dymond, 2004, A technique for mapping the impact of mountain pine beetle, *Canadian Forest Service Forestry Research Applications Technology Transfer Note*, 32: 1-4.

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### Selected Editorial Contributions and Reviews

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- Hall, R. J., and S. E. Franklin, 1996, Guest editorial, cover and preface, *Canadian Journal of Remote Sensing*, 22(4): 349-350.
- Franklin, S. E., 1996, Welcome, *Proceedings, 26<sup>th</sup> International Symposium on Remote Sensing of Environment*, Vancouver, B. C., p. vii.
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## PRESENTATIONS

### Workshops, Conference Posters, and Public Presentations

30<sup>th</sup> Canadian Symposium on Remote Sensing, Lethbridge, 2009

Ontario Biodiversity Council, 2009

14<sup>th</sup> Australasian Conference on Remote Sensing, Darwin, 2008

29<sup>th</sup> Canadian Symposium on Remote Sensing, Whitehorse, 2008

UNICENTRO Remote Sensing/GIS/Forest Engineering Seminar, Curitiba, Brazil, 2008

International Polar Year GeoNorth, Yellowknife, 2007

Saskatchewan Nature Society, Saskatoon, 2007

National Forum on Knowledge Translation and Exchange (KTE), Toronto, 2006

Canadian Association of Geographers, UWO-London, 2006

North Okanagan Naturalist Club, Vernon, BC, 2006

CONFOR, Halifax, 2005

2<sup>nd</sup> Canadian Summit on Teaching and Research, University of Alberta, 2005

International Association for Landscape Ecology, Banff, 2005

1<sup>st</sup> Canadian Summit on Teaching and Research, University of Alberta, 2004

HRD Roundtable on Teaching and Learning, University of Guelph, 2004

Carbon Budget Accounting Workshop, Victoria, 2003

Border Bears Workshop, Sandpoint, Idaho, 2003

ForestSat Symposium (*Keynote Address*), Edinburgh, 2002

Workshop on Undergraduate Education, Stanford University, 2002

First Year Experience Workshop, Bath University, 2002

13<sup>th</sup> International Bear Conference, Jackson Hole, Wyoming, 2001

North Okanagan Naturalist Club, Vernon, BC, 2001

GIS'2001, Vancouver, 2001

Greater Fundy Ecosystem Biodiversity Working Group, Fredericton, 1999

GIS/Remote Sensing Workshop and Code Specification Session, Fredericton, 1999

CCOS-Terre, Carbon Budget Modelling Workshop, Ottawa, 1999

Remote Sensing Society of Finland, Annual Meeting, Espoo, 1999

First International Symposium on Operationalization of Remote Sensing, ITC, Delft, 1999

CIF Rocky Mountain Section, Remote Sensing Seminar, Edmonton, 1999

CAG Annual Meeting, University of Lethbridge, 1998

Fundy Model Forest Remote Sensing Field Trip and Workshop, Fundy National Park, 1998  
Biodiversity Monitoring Workshop, Hinton, 1998  
Remote Sensing and GIS for Land-use Mapping Workshop, Calgary, 1997  
Canadian Association of Geographers, Annual Meeting, University of Ottawa, 1997  
Fundy Model Forest Introduction to Remote Sensing Workshop, Fredericton, 1997  
Canadian Institute of Geomatics Strategic Planning Workshop, Calgary, 1997  
NCEAS Workshop on Spatial Data Uncertainty, Santa Barbara, 1997  
Geomatics in the Era of Radarsat Symposium, Ottawa, 1997  
ISEM, Ecological Modelling Workshop, Montreal, 1996  
ESA Poster Session, Albuquerque, 1996  
Laurentian Forest Research Centre, ECO-LEAP Workshop, Quebec City, 1996  
Calgary Board of Education Social Studies Change Symposium, 1996  
WCAG Annual Meeting, Lethbridge, 1996  
IUFRO World Congress, Tampere, Finland, 1995  
RADARSAT Alberta Briefing, Red Deer, 1994  
Eastern Spruce Budworm Research Conference, St. John's, 1994  
Balsam Woolly Adelgid Workshop, Corner Brook, 1994  
Sylvicon'93, Fredericton, 1993  
Boreal Forest Transect Workshop, Northern Forest Research Centre, Edmonton, 1993  
Canadian Institute of Forestry Annual Meeting, Vancouver, 1993  
Program Review, Newfoundland Forest Research Centre, St. John's, 1993  
Boreas Field Visit and Workshop, Prince Albert, 1993  
Annual Meeting of the Canadian Association of Geographers, Edmonton, 1993  
Circumpolar Conference on Remote Sensing of Arctic Environments, Yellowknife, 1993  
Western Division of the Canadian Association of Geographers, Vancouver, 1992  
Forestry Research Marketplace, Toronto, 1992  
National Conference on Canada's Timber Resources, Victoria, 1991  
IUFRO World Congress, Montreal, 1990  
18<sup>th</sup> Annual Arctic Workshop, University of Lethbridge, 1989  
Annual Meeting, Acadian Entomological Society, Truro, Nova Scotia, 1988  
GAC/MAC/Canadian Society of Petroleum Geologists Annual Meeting, St. John's, 1987  
Canadian Association of Geographers Annual Meeting, Halifax, Nova Scotia, 1987  
Canadian Meteorological and Oceanographic Society, Annual Meeting, St. John's, 1986  
Canadian Institute of Mining and Metallurgy, Annual Meeting, St. John's, 1985  
Eastern Lakes Division Meeting, American Association of Geographers, 1983  
Canadian Association of Geographers Annual Meeting, 1983  
CNES, Toulouse, France, 1981  
EARSel Symposium on Remote Sensing of Coastal Waters, Voss, Norway, 1981

### **University Seminars, Collaborations and Guest Lectures**

Business Administration, Trent University 2010  
Department of Physics/Chemistry Seminar Series, Trent University, 2010  
Department of Geography, Trent University, 2009  
Innovation Cluster, Trent University, 2009  
Department of Geography and Planning, University of Saskatchewan, 2009

School of Biology and Biotechnology, Murdoch University, 2008  
 Department of Spatial Sciences, Curtin University of Technology, 2008  
 Department of Environmental Biology, Curtin University of Technology, 2008  
 Department of Geography, York University, 2007  
 Department of Geography, University of Western Ontario, 2007  
 Department of Biology, University of Saskatchewan, 2006  
 Division of Resources and Environment, Curtin University, 2006  
 Department of Soil Science, University of Saskatchewan, 2005  
 Department of Physics, University of Saskatchewan, 2005  
 Department of Geography, University of Regina, 2004  
 Department of Geography, Texas State University (San Marcos), 2002  
 Department of Geography, University of Lethbridge, 2002  
 College of Forestry, UC (Berkeley), 2001  
 Department of Geography, UC (Santa Barbara), 2000  
 Department of Biological Sciences, University of Calgary, 1999  
 Department of Forestry, National University of La Plata, Argentina, 1997  
 President's Celebration of Excellence, University of Calgary, 1996  
 Dean's Distinguished Lecture Series, University of Calgary, 1995  
 Centre for Airborne Environmental Analysis, Oregon State University, 1994  
 School of Forestry, University of Montana, 1992  
 Arctic Institute of North America, University of Calgary, 1989  
 Department of Geography, University of Calgary, 1988  
 Department of Geography, University of Toronto, 1987  
 College of Geographic Sciences, Nova Scotia, 1985  
 Department of Geography, University of Windsor, 1984  
 Department of Geography, Memorial University of Newfoundland, 1984

## GRANTS AND CONTRACTS

### External Awards

Project/Research Area	Funding Agency (*includes industry contribution)	Total Amount	Period
Environmental refugia/biodiversity	Australian Res. Council Linkage*	\$330000	2009-2013
Environmental stress and remote sensing	NSERC Collaborative R&D*	\$1440000	2006-2011
Grizzly bear management geospatial tools	NSERC Collaborative R&D*	\$650000	2000-2005
LiDAR and multispectral remote sensing	NSERC Discovery	\$170000	2008-2013
Biophysical remote sensing	NSERC Discovery	\$168000	2003-2008
Terrain effects, change analysis, texture	NSERC Discovery	\$128000	1999-2003
Vegetation and landscape dynamics	NSERC Discovery	\$88900	1994-1999
Geomorphometric, optical, radar imagery	NSERC Discovery	\$70200	1992-1994
Segmentation of satellite imagery	NSERC Discovery	\$55200	1989-1991
Field equipment for remote sensing	NSERC Equipment	\$88000	2003
Field-spectroradiometer	NSERC Equipment	\$35000	1993
Kananaskis Field Stations (Major User)	NSERC Infrastructure	\$145000	1992-2005
Grizzly bear habitat mapping	Foothills Model Forest	\$40000	1999-2000
Habitat mapping and environmental change	Alberta Innovation Fund*	\$2000000	2005-2008
Change detection/modelling/LAI/mapping	NRCan-Canadian Forest Service	\$225000	1992-2003
Radarsat in Argentina/Colombia	NRCan-CCRS	\$40000	1999-2000

Forest inventory assessment	RWED-Northwest Territories	\$68000	1998-1999
Forest fragmentation/habitat analysis	Parks Canada (Revelstoke)	\$10000	1998-1999
Remote sensing/orthorectification	Parks Canada (Kluane)	\$45000	1989-1999
Fire fuel mapping with remote sensing	Parks Canada (Wood Buffalo)	\$90000	1992-1994
Insect damage and biophysical classification	Parks Canada (Gros Morne)	\$25000	1987-1990
Remote sensing/DEM applications	NF Forest Management	\$40000	1986-1988

### Internal Awards

Project/Research Area	Funding Source	Total Amount	Period
Earth Observation and Geomatics	Trent University – New Faculty Award	\$15000	2009
Environmental Remote Sensing	UofS Research – New Faculty Award	\$30000	2003
Innovation Field-Teaching Grant	UC Special Sessions	\$4000	2003
Biodiversity NCE Development	UC Research Initiatives	\$15000	2002
Virtual Field Trip Network	Learning Enhancement Envelope	\$16600	1997
Northern Science Training Program	Indian and Northern Affairs Canada	\$40000	1986-1994
STEP/SEED Training Programs	NF/Alberta/Canada Employment	\$40000	1986-1994
Centre of Innovation (Imagery)	Apple Canada Education Foundation	\$23285	1991-1992
Airborne remote sensing research	UC Research Grants Committee – Start-up	\$20000	1988-1991
Northern remote sensing research	Memorial University Grants Committee	\$32584	1985-1988

### Consulting

Alberta Biodiversity Monitoring Institute  
 Canadian Wildlife Service  
 GeoAnalytic Ltd.  
 Canada Centre for Remote Sensing, Remote Sensing Data Development Program  
 Canadian Model Forest Network  
 Canadian Forest Service (Atlantic, Newfoundland, Northern, Pacific Forestry Centres)  
 Canadian Forest Service (Green Plan, Science & Technology Opportunities Fund)  
 Alberta Forestry, Lands and Wildlife (Resource Information Branch)  
 Alberta Research Council  
 Alberta Sustainable Resource Development  
 Corner Brook Pulp and Paper Co. Ltd.  
 NORDCO Limited