



Alberta Geomatics Applied Research Expertise



University of Alberta



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Alberta Terrestrial Satellite Center (ATIC)

Updated November 2011

TECTERRA Inc.
#306, 5940 Macleod Trail SW
Calgary, AB T2H 2G4
Ph: 403.532.4275
www.tecterra.com

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Arie Croitoru	Assistant Professor, Earth & Atmospheric Sciences Phone: (780) 492-7241 Email: croitoru@ualberta.ca Web	GIS Remote Sensing Photogrammetry Geoinformatics Spatio-temporal Data Mining Image Processing/ Understanding	<ul style="list-style-type: none"> • Current research focuses mainly on spatio-temporal data processing and analysis • Interested in processing multi-dimensional trajectory data. His overall goal is to develop an algorithmic foundation that will utilize spatiotemporal data and facilitate various tasks such as indexing, clustering, classification, and summarization • Active in several other research areas, concentrating mainly on Image Processing and Image Analysis, Digital Photogrammetry and Remote Sensing, Applications of Spatial Statistics in GIS and Geospatial information systems
Dr. John Gamon	Professor, Biological Sciences Phone: (780) 492-0345 Email: gamon@ualberta.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Remote sensing for sampling terrestrial ecosystem composition and function • Detecting plant biochemical responses with non-contact optical methods • Plant ecophysiology, particularly related to photosynthesis and environmental stress

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Tian Gan	Professor, Water Resources Engineering Phone: (780) 492-9376 Email: tgan@ualberta.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Distributed Modeling Inter-comparison Project, of NOAA-USA, modeling the hydrology of Blue River Basin (DMIP2 of NOAA, USA) • Relating remotely sensed Vegetation index from NOAA-AVHRR, MODIS-Aqua data to climate and carbon fluxes for Alberta • Water resources management, planning and adaptation in River Nile under the potential impact of climate change
Dr. Christian Haas	Professor, Earth & Atmospheric Studies Alberta Ingenuity Scholar (EAS/Physics) Phone: (780) 492-8191 Email: chaas@ualberta.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Development of new airborne and ground-based sensors and algorithms for sea ice and snow surveying, involving in particular electromagnetic induction (EM) sounding, laser scanning, radar profiling, and DGPS surveying • Observations and modelling of sea ice and snow properties and processes in the Arctic and Antarctic, and in Alberta, and their interpretation in the context of climate change. This includes satellite remote sensing and in-situ measurements by various satellite and in-situ sensors • All projects comprise extensive field trips to the Arctic and Antarctic

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Faye Hicks	Professor, Water Resources Engineering Phone: (780) 492-7170 Email: faye.hicks@ualberta.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Potential of RADARSAT-1 for the monitoring of river ice: results of a case study on the Athabasca River at Fort McMurray, Canada • Potential of RADARSAT-2 for the monitoring of river freeze-up processes • Monitoring breakup on the Athabasca River using RADARSAT-1 SAR imagery
Dr. Martin Jagersand	Associate Professor, Computing Science Phone: (780) 492-5496 Email: jag@cs.ualberta.ca Web	Navigation (visual aided)	<ul style="list-style-type: none"> • Vision-based control of helicopter UAVs • Visual Serving Robot motion guided by real-time video tracking • Predictive Display for Tele-Robotics Compensating for operator visual feedback time delays using incremental 3D capture and rendering of the remote work area • Mobile manipulation and space tele-robotics project

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Hai Jiang	Associate Professor, Electrical & Computer Engineering Phone: (780) 492-7702 Email: hai1@ualberta.ca Web	Wireless Sensors	<ul style="list-style-type: none"> • Reliable spectrum sensing: investigate cooperative spectrum sensing and analyze the performance • Efficient spectrum sharing: investigate resource allocation games in multi-user wireless systems • Wireless topology control: investigate sensor movement algorithms that maximize the coverage of the network and minimize the movement cost
Dr. Subhash R. Lele	Professor, Mathematical & Statistical Sciences Phone: (780) 492-4290 Email: slele@ualberta.ca Web	GIS Remote Sensing	Sample research: <ul style="list-style-type: none"> • Stochastic Gravity Models for modeling lake invasions • Removing GPS collar bias in habitat selection studies • Integrating AVHRR satellite data and NOAA ground observations to predict surface air temperature: a statistical approach • Applying a geographic information system (GIS) to assess the relationship between weather and water-borne diseases in the US

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Alan Lynch	Associate Professor, Electrical & Computer Engineering Phone: (780) 492-5147 Email: alan.lynch@ualberta.ca Web	Navigation	<ul style="list-style-type: none"> • Helicopter Unmanned Aerial Vehicles (UAVs): this research involves various aspects of indoor and outdoor autopilot development for helicopter UAVs for visual inspection of electrical transmission lines. Research objectives include mathematical modeling, model identification, navigation and control algorithm design, hardware/software implementation, multiview geometry, 3D modeling from images, and real-time visual tracking • Magnetic Bearings and Self-bearing Motors: the modeling and nonlinear control of various magnetic bearing systems is being investigated. This work includes a Lorenz-force permanent magnet synchronous self-bearing motor test stand
Dr. Zhi-Jun (Tony) Qiu	Assistant Professor, Transportation Engineering Phone: (780) 492-1906 Email: tony.qiu@ualberta.ca Web	GIS Wireless Sensor Network (WSN) Location-Based Service (LBS)	<ul style="list-style-type: none"> • Developing an archiving and mining traffic data system for Alberta • Designing and developing a wireless sensor network based traffic surveillance system • Developing adaptive and coordinated traffic control strategies to improve freeway mobility and safety

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Benoit Rivard	Professor, Earth & Atmospheric Sciences Associate Chair (Research) Phone: (780) 492-0349 Email: Benoit.Rivard@ualberta.ca Web	Remote Sensing	<ul style="list-style-type: none"> • To automate the hyperspectral analysis of rock cores and wall rock toward mineral mapping and rock type classification • To improve the analysis of hyperspectral imagery for northern regions (e.g. Baffin Island) • To improve the analysis of hyperspectral data for tropical forests. This work is done in collaboration with colleague Dr. A. Sanchez
Dr. Arturo G. Sanchez	Professor, Earth & Atmospheric Sciences Associate Dean, Faculty of Science, International & Graduate Affairs Phone: (780) 492-1822 Email: Arturo.Sanchez@ualberta.ca Web	Remote Sensing GIS	<ul style="list-style-type: none"> • Research is related to the study of impacts of land use/cover change (LUCC) on biodiversity loss and habitat fragmentation in tropical dry forest environments using remote sensing and geographic information systems to evaluate 1) the effectiveness of protected areas (National Parks and Biological Reserves) and 2) Payment of Environmental Services schemes to control tropical deforestation in Mesoamerica • Development of techniques for the analysis and interpretation of the presence of non-self-supporting tropical systems (lianas) and tropical hardwood species at the leaf and canopy level using hyper spectral remote sensing data bases

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Martin J. Sharp	Professor and Chair, Earth & Atmospheric Sciences Phone: (780) 492-5249 Email: Martin.Sharp@ualberta.ca Web	Remote Sensing	<ul style="list-style-type: none"> Interested in interactions between glaciers and the climate system, and in hydro chemical processes in glacial environments. At present his research program is structured around field studies conducted at John Evans Glacier, Ellesmere Island, and combined field and remote sensing studies of the ice caps of the Queen Elizabeth Islands, Arctic Canada. His group runs the Glacier Hydrochemistry Lab (walk in freezer and analytical facility) and is extremely well equipped for glaciological fieldwork (radio echo sounder, ice coring equipment, differential GPS and total station survey equipment, automatic weather stations and stream monitoring stations, digital borehole inclinometer)
Dr. Martyn Unsworth	Professor, Geophysics Phone: (780) 492-3041 Email: unsworth@phys.ualberta.ca Web	Remote Sensing (Magnetotellurics, a technique that can image the earth's electrical resistivity)	<ul style="list-style-type: none"> Tectonics Mineral exploration Environmental geophysics Hydrocarbon exploration Volcanology

The following lists researchers who are interested in water resources and mining studies but remote sensing is not mentioned:

Name	Contact Information
Dr. Evan Davies	Assistant Professor, Water Resources Engineering Phone: (780) 492-5134 Email: evan.davis@ualberta.ca Web
Dr. Clayton Deutsch	Professor and Director of School of Mining & Petroleum Engineering Phone: (780) 492-9916 Email: cdeutsch@ualberta.ca Web
Dr. Peter Steffler	Professor, Water Resources Engineering Phone: (780) 492-9375 Email: peter.steffler@ualberta.ca Web



University of Calgary Researchers with Geomatics-related Interests (Engineering - Geography - Geoscience)

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Michael Barry	Professor, Geomatics Engineering John Holmlund Chair in Land Tenure and Cadastral Systems Phone: (403) 220-5826 Email: mbarry@ucalgary.ca Web	GIS and Land Tenure	<ul style="list-style-type: none"> The design and evaluation of cadastral systems during social and political transformation, and managing the design and implementation issues in GIS
Dr. Elizabeth Cannon	Professor, Geomatics Engineering President, University of Calgary Phone: (403) 220-5731 Web	Positioning, Navigation and Wireless Location	<ul style="list-style-type: none"> Integration of GPS with Emerging Inertial Navigation Systems (INSs) for application to precise vehicular positioning Super accurate real-time location services using a regional network Integration of GPS with Galileo



University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Michael Collins	Associate Professor, Geomatics Engineering Phone: (403) 220-7534 Email: michael.collins@ucalgary.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Remote sensing, imaging geometry, environmental monitoring and image interpretation
Dr. Alex de Barros	Assistant Professor, Transportation Engineering Phone: (403) 220-6713 Email: debarros@alumni.ucalgary.ca Web	Positioning and GPS	<ul style="list-style-type: none"> • Automatic Vehicle Location (AVL): the use of ground-based and satellite-based systems for real-time vehicle monitoring and location



University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Naser El-Sheimy	<p>Professor, Geomatics Engineering</p> <p>Canada Research Chair in Mobil Multi-sensor Geomatics Systems</p> <p>Phone: (403) 220-7587</p> <p>Email: elsheimy@ucalgary.ca</p> <p>Web</p>	<p>Positioning, Navigation and Wireless Location</p> <p>Digital Imaging Systems</p>	<ul style="list-style-type: none"> • The development of a new, integrated vehicular navigation and guidance system that is not only low-cost but also small in size • The development of a real-time internet-based Forest Fire Fighting (F3) System • Artificial neural network for navigation sensor integration • Endangered species tracking system • Multi-sensor system for improved quality of life for movement disorders
Dr. Michel Fattouche	<p>Professor, Electrical Engineering</p> <p>Phone: (403) 210-8498</p> <p>Email: mtfattou@ucalgary.ca</p> <p>Web</p>	Wireless Location	<ul style="list-style-type: none"> • W-OFDM (Wide-band Orthogonal Frequency Division Multiplexing) • MC-DSSS (MultiCode-Direct Sequence Spread Spectrum) • Co-founded Cell-Loc, the developer of a family of network-based wireless location products that enable location-sensitive services of people and assets using a small portable device

University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Yang Gao	Professor, Geomatics Engineering Phone: (403) 220-6174 Email: ygao@ucalgary.ca Web	Positioning, Navigation and Wireless Location	<ul style="list-style-type: none"> • Low-cost MEMS-based vehicular navigation systems • Global, wide area and regional differential GPS positioning technology • Integration of satellite navigation, geospatial information management and wireless communication systems • Internet DGPS and RTK system
Dr. Ayman Habib	Department Head Professor, Geomatics Engineering Phone: (403) 220-7105 Email: ahabib@ucalgary.ca Web	Digital Imaging Systems	<ul style="list-style-type: none"> • Developing cheap photogrammetric system • Linking photogrammetry with other disciplines (e.g., medical, transportation, security, archaeological, environmental, and industrial applications) • Terrestrial and aerial mobile mapping systems, modeling the perspective geometry of non-traditional imaging scanners (e.g., line cameras), automatic matching and change detection between various datasets, automatic calibration of low cost/off-the-shelf digital cameras, incorporating analytical and free-form linear features in various photogrammetric orientation procedures, object recognition in imagery, and integrating photogrammetric data with other sensors/datasets (e.g., GPS/INS, GIS databases, multi- and hyper-spectral sensors, and LIDAR)

University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Quazi Hassan	Assistant Professor, Geomatics Engineering Phone: (403) 210-9494 Email: g Hassan@ucalgary.ca Web	Earth Observations Remote Sensing	<ul style="list-style-type: none"> Combining remote sensing data and process-based models for understanding the interactions among soil, vegetation, and atmosphere Use of remote sensing and GIS techniques into the management of natural resources Mapping of the dynamics of natural disasters, such as flooding, forest fire, drought, and water scarcity Application of remote sensing techniques in addressing energy and environmental issues
Dr. Andrew Hunter	Assistant Professor, Geomatics Engineering Phone: (403) 220-7377 Email: ahunter@ucalgary.ca Web	GIS and Land Tenure	<ul style="list-style-type: none"> The acquisition, use, and analysis of dynamic spatial data under the interrelated themes of Geographic Information Science, Spatial Statistics and GeoComputation Environmental applications related to animal tracking, land use planning and Cadastres

University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Lina Kattan	Assistant Professor, Urban Alliance Professor in Transportation Systems Optimization Phone: (403) 220-3010 Email: lkattan@ucalgary.ca Web	Navigation and GPS	<ul style="list-style-type: none"> Intelligent Transportation Systems (ITS), with emphasis on Advanced Traffic Control, Management and Information Systems (ATMIS)
Dr. Jeong Woo Kim	Associate Professor, Geomatics Engineering Phone: (403) 220-4858 Email: jw.kim@ucalgary.ca Web	Earth Observations	<ul style="list-style-type: none"> Satellite geophysics and radar remote sensing Integrating state-of-the-art geophysical and geodetic techniques for geohazard analysis and geodynamics Monitoring and predicting geologic hazards such as earthquakes, volcanic eruptions, landslides, and subsidence through optimal fusion of various deformation measurements particularly from superconducting and satellite gravimeters, seismometer, and InSAR

University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Gérard Lachapelle	<p>Professor, Geomatics Engineering</p> <p>Canada Research Chair (CRC) in Wireless Location</p> <p>Phone: (403) 220-7104</p> <p>Email: gerard.lachapelle@ucalgary.ca</p> <p>Web</p>	Positioning, Navigation and Wireless Location	<ul style="list-style-type: none"> • Satellite and ground-based wireless location, navigation and positioning • RF propagation for indoor location • Real-time kinematic GNSS positioning and attitude determination systems • Augmentation of RF navigation systems with self-contained sensors • Combined GPS-GALILEO systems
Dr. Steve H.L. Liang	<p>Assistant Professor, Geomatics Engineering</p> <p>Phone: (403) 220-4703</p> <p>Email: steve.liang@ucalgary.ca</p> <p>Web</p>	GIS and Land Tenure	<ul style="list-style-type: none"> • Geospatial Information and Communication Technologies (GeoICT) • Intersection of Geo-Sensor Networks, Peer-to-Peer (p2p) computing, Internet GIS and Social Networks, specifically in the area of the Spatial Sensor Web (SSW), which is a spatial information infrastructure for heterogeneous sensor networks

University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Henry Leung	Professor, Electrical & Computer Engineering Phone: (403) 220-4875 Email: leungh@ucalgary.ca Web	Navigation Signal Processing	<ul style="list-style-type: none"> • Novel chaos-based pulse amplitude modulated ultra-wideband (CPAM-UWB) waveform for through-the-wall radar imaging and detection • Intelligent robot navigation and control • Signal processing for sensor and communication systems
Dr. Derek Lichti	Associate Professor, Geomatics Engineering Phone: (403) 210-9495 Email: ddlichti@ucalgary.ca Web	Digital Imaging Systems	<ul style="list-style-type: none"> • The use of optical and range imagery for automated 3D object reconstruction • Sensor modelling and calibration, 3D data registration and feature extraction from point cloud data spanning a variety of sensors including digital cameras, airborne laser scanners, terrestrial laser scanners and 3D range cameras • Diverse range of applications including structural deformation measurement, fluid mechanics, cultural heritage and industrial recording

University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Danielle Marceau	<p>Professor, Geomatics Engineering & Schulich Chair in GIS and Environmental Modeling</p> <p>Associate Head, Graduate Studies</p> <p>Phone: (403) 220-5314</p> <p>Email: dmarceau@ucalgary.ca</p> <p>Web</p>	GIS and Land Tenure	<ul style="list-style-type: none"> Modeling the influence of different management scenarios to reduce deforestation in an agricultural region of southern Quebec using a geographic cellular automaton model Development of a vector-based cellular automaton that allows changes of state and shape of meaningful entities composing a landscape Investigating sustainable scenarios of urban expansion in the City of Calgary, Alberta, using a cellular automaton and a multi-agent model Multiscale analysis of remote sensing data to improve automated land-use classification
Dr. Geoffrey Messier	<p>Associate Professor, Electrical & Computer Engineering</p> <p>Phone: (403) 220-8976</p> <p>Email: gmessier@ucalgary.ca</p> <p>Web</p>	Wireless Location	<ul style="list-style-type: none"> Locating a mobile robot using dead reckoning and received signal strength Using WLAN Infrastructure for indoor location



University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Martin Mintchev	Professor, Electrical & Computer Engineering Phone: (403) 220-5309 Email: mintchev@enel.ucalgary.ca Web	Navigation, INS and Signal Processing	<ul style="list-style-type: none"> • Design and testing of fiber optic gyroscope-based inertial navigation systems for horizontal drilling applications • Digital signal processing and conditioning of measurement-while-drilling data
Dr. Kyle O'Keefe	Associate Professor, Geomatics Engineering Associate Head, Undergraduate Phone: (403) 220-7378 Email: kpgokeef@ucalgary.ca Web	Positioning, Navigation and Wireless Location	<ul style="list-style-type: none"> • Probability of correct carrier phase ambiguity resolution in the presence of time-correlated observation errors • Integration of GPS and Ultra-Wideband ranging radios for surveying and vehicle navigation applications • Space applications of satellite navigation • Effect of double-differencing strategy carrier-phase ambiguity resolution performance • Simulation and evaluation of future GNSS (Galileo, GPS2, Mars Network)



University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Mark Petovello	Associate Professor, Geomatics Engineering Phone: (403) 210-9795 Email: mark.petovello@ucalgary.ca Web	Positioning, Navigation and Wireless Location	<ul style="list-style-type: none"> • Development of software-based GNSS receivers • Developing new GNSS receiver architectures that integrate INS and other dead-reckoning sensors to improve overall performance • Multi-sensor integration for navigation applications • Assessing the probability of correct carrier phase ambiguity resolution in the presence of time-correlated observation errors
Dr. Michael Sideris	Professor, Geomatics Engineering & Associate Dean (Engineering), Faculty of Graduate Studies Phone: (403) 220-4985 Email: sideris@ucalgary.ca Web	Earth Observation Gravity	<ul style="list-style-type: none"> • Gravity field approximation with emphasis on spectral methods, industrial surveys, optimization techniques in Geomatics, precise geoid determination, satellite altimetry, airborne gravimetry and gradiometry, monitoring and interpretation of industrial machinery deformations and vibrations

University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Susan Skone	Associate Professor, Geomatics Engineering Phone: (403) 220-7589 Email: shskone@ucalgary.ca Web	Positioning, Navigation and Wireless Location	<ul style="list-style-type: none"> • Ionosphere modeling and Ionospheric scintillations • GPS meteorology • Wide area differential GPS and marine DGPS
Dr. Bill Teskey	Professor, Geomatics Engineering Phone: (403) 220-7397 Email: wteskey@ucalgary.ca Web	Precise Surveying	<ul style="list-style-type: none"> • Deformation monitoring of engineering structures • High- precision industrial alignment surveys • Dynamic deformation monitoring via 3D (three-dimensional) laser scanning
Dr. Caterina Valeo	Professor, Civil Engineering Phone: (403) 220-4112 Email: valeo@ucalgary.ca Web	Remote Sensing	<ul style="list-style-type: none"> • The use of remote sensing in developing large scale estimates of evapotranspiration and vegetation health



University of Calgary Researchers with Geomatics-related Interests

U of C, School of Engineering			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Xin Wang	Assistant Professor, Geomatics Engineering Phone: (403) 220-3355 Email: xcwang@ucalgary.ca Web	GIS and Land Tenure	<ul style="list-style-type: none">• Spatial databases and spatial data mining• Ontology and knowledge engineering in GIS• Web GIS• Privacy protection in GIS

University of Calgary Researchers with Geomatics-related Interests

U of C, Department of Geography			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Shelley Alexander	Associate Professor, Geography Phone: (403) 220-5597 Email: smalexan@ucalgary.ca Web	GIS Remote Sensing	<ul style="list-style-type: none"> • Conservation GIS • Field-based and GIS studies of large carnivore ecology and human-conflict • Combined extensive snow tracking of species, with remote sensing and GIS to identify optimal sites for wildlife crossing structures across major highways
Dr. Darren Bender	Associate Professor, Geography Phone: (403) 220-6398 Email: dbender@ucalgary.ca Web	GIS	<ul style="list-style-type: none"> • Work in the areas of landscape ecology, conservation GIS and biodiversity informatics • Integrates quantitative spatial tools into ecological research, with particular interest in geospatial methods for habitat assessment, spatially-explicit population modelling, geostatistical species-range estimation, and GIS-based biodiversity assessment

University of Calgary Researchers with Geomatics-related Interests

U of C, Department of Geography			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Stefania Bertazzon	Associate Professor, Geography Phone: (403) 220-7355 Email: bertazzs@ucalgary.ca Web	GIS	<ul style="list-style-type: none"> Spatial analysis and its health, social, and environmental applications Developed reliable spatial analytical models for health, environmental, economic, and social sciences, integrating spatial epidemiology, risk analysis, and spatio-temporal diffusion analysis
Dr. Guillermo Castilla	Adjunct Assistant Professor, Geography Email: gcastill@ucalgary.ca Web	Remote Sensing	<ul style="list-style-type: none"> Works in the development of theories and methods to automatize the production of geographic information from remote sensing imagery The design of new image segmentation and classification methods that operate at several scales, based respectively on image morphology and multi criteria decision-making theory
Dr. Mryka Hall-Beyer	Associate Professor, Geography Phone: (403) 220-6586 Email: mhallbey@ucalgary.ca Web	Remote Sensing	<ul style="list-style-type: none"> Mainly concerned with the hyper temporal image analysis techniques, and discovering what the results present about the landscape or seascape Investigates how information derived from low-resolution satellite sensors (AVHRR and MODIS) relates to ground-collected plant phenology data in Alberta and the North

University of Calgary Researchers with Geomatics-related Interests

U of C, Department of Geography			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Geoffrey Hay	Associate Professor, Geography Phone: (403) 220-4768 Email: gjhay@ucalgary.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Develop and apply innovative multi-scale object-based image-analysis approaches • High-resolution thermal imaging to support urban energy efficiency and low carbon communities
Dr. Dan Jacobson	Associate Professor, Geography Phone: (403) 220-6192 Email: dan.jacobson@ucalgary.ca Web	GIS	<ul style="list-style-type: none"> • Developing multi-sensory access to GIS based systems to facilitate ease of access for novel users, for non-visual users and to extended opportunities for advanced users to collect, mine, validate and explore digital representations of geographic space

University of Calgary Researchers with Geomatics-related Interests

U of C, Department of Geography			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Greg McDermid	Associate Professor, Geography Phone: (403) 220-4780 Email: mcdermid@ucalgary.ca Web	GIS Remote Sensing	<ul style="list-style-type: none"> • Application of remote sensing and other geospatial tools to wildlife ecology and environmental management • Digital image processing, spatial analysis, environmental modelling, and data fusion/integration - particularly in forested and high-relief environments
Dr. Brian Moorman	Department Head Professor, Geography Phone: (403) 220-4835 Email: moorman@ucalgary.ca Web	Remote Sensing - Hydrology	<ul style="list-style-type: none"> • Permafrost and glacial hydrology • Using geophysical, remote sensing and geochemical techniques to study massive ground ice, hydrology, and terrain stability in the Canadian Arctic • Modelling ground movement of glaciers and permafrost terrain, exploring permafrost-ocean interactions and characterizing ground ice distribution and preservation

University of Calgary Researchers with Geomatics-related Interests

U of C, Department of Geography			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Dana Naldrett	Adjunct Assistant Professor, Geography Phone: (403) 220-6200 Email: naldrett@ucalgary.ca Web	GIS	<ul style="list-style-type: none"> • Developing and teaching GIS to industry and SAIT students • Evaluation, integration and implementation of GIS systems
Dr. Darren Sjogren	Associate Professor, Geography Phone: (403) 220-2575 Email: sjogren@ucalgary.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Sub- and pro-glacial environments and incorporates digital terrain modelling, remote sensing and shallow geophysical techniques



University of Calgary Researchers with Geomatics-related Interests

U of C, Department of Geography			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. John Yackel	Associate Professor, Geography Phone: (403) 220-4892 Email: yackel@ucalgary.ca Web	Remote Sensing	<ul style="list-style-type: none"> Currently a co-principal investigator on several national and international climate change related projects to use remote sensing for examining Arctic sea ice - climate processes

University of Calgary Researchers with Geomatics-related Interests

U of C, Department of Geoscience			
Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Patrick Wu	Professor, Geoscience Phone: (403) 220-7855 Email: ppwu@ucalgary.ca Web	Geodesy and Gravity	<ul style="list-style-type: none"> • Application of modern geodetic techniques to study past and recent climate change • Deformations of the earth including crustal motion, changes in gravity, state of stress & earth rotation; intraplate earthquakes
CREWES This is a research group that includes the following faculty members Gary Margrave Rob Stewart Don Lawton Larry Lines Rob Ferguson Dave Eaton Kristopher Innanen John Bancroft Michael Lamoureux	CREWES (Consortium for Research in Elastic Wave Exploration Seismology) Department of Geoscience Phone: (403) 220-8863 Email: crewesinfo@crewes.org Web <i>Please note that for every Faculty member there is page, but no information was found on any Geomatics related research</i>	Earth Observations	<ul style="list-style-type: none"> • Near surface description using remote sensing, ground penetrating radar, geographic information systems

Additional information on the Department of Geoscience Faculty can be viewed at <http://geoscience.ucalgary.ca/contact-us/directory/1-46929>



University of Lethbridge Researchers with Geomatics- related Interests
(Geography, Physics & Astronomy)

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Sarah Boon	Faculty, Geography Phone: (403) 332-4569 Email: sarah.boon@uleth.ca Web	Arctic Research	<ul style="list-style-type: none"> • Mountain hydrology using a combination of field-based process work and numerical modeling • Snow and glacier melt contributions to runoff generation from headwater basins, and how these contributions could be affected by both forest disturbance and climate change • Works in alpine and Arctic regions: the southern Rocky Mountains, the eastern Canadian Arctic, and the north Coast Mountains • Assessing the impact of forest disturbance (mountain pine beetle, wildfire) on snow hydrology, and the role of snowpack evolution in driving surface hydrology on Arctic glaciers
Dr. Craig Coburn	Associate Professor, Geography Phone: (403) 317-2818 Email: craig.coburn@uleth.ca Web	Remote Sensing Digital Imaging	<ul style="list-style-type: none"> • Characterizing image texture, multi-resolution data analysis, and spatial statistics • Remote sensing system development with applications in forestry and terrain modelling



University of Lethbridge Researchers with Geomatics- related Interests

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Ron Hall	Adjunct Professor, Geography Web	Remote Sensing GIS	<ul style="list-style-type: none"> • Remote sensing • GIS • Forest inventory and biophysical parameter (e.g., leaf area index, biomass) estimation, forest health
Dr. Stefan Kienzle	Associate Professor, Hydrology & GIS Phone: (403) 380-1875 Email: stefan.kienzle@uleth.ca Web	GIS	<ul style="list-style-type: none"> • Spatial analysis • Terrain modelling • Hydrological modelling • GIS applications in wildlife habitat
Dr. Adriana Predoi-Cross	Assistant Professor, Physics & Astronomy Phone: (403) 329-2697 Email: adriana.predoicross@uleth.ca Web	Remote Sensing	<ul style="list-style-type: none"> • Laboratory spectroscopy with applications to remote sensing of Earth and planetary atmospheric constituents



University of Lethbridge Researchers with Geomatics- related Interests

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Derek Peddle	Professor, Geography Phone: (403) 329-2524 Email: derek.peddle@uleth.ca Web	Remote Sensing GIS	<ul style="list-style-type: none"> • Remote sensing, GIS, and Earth System Science modeling in studies of global environmental change • Using an integrated research approach, key environmental indicators of potential global change are being investigated in different parts of the world at dynamic spatial and temporal scales
Dr. Phil Teillet	Professor, Physics & Astronomy Phone: (403) 329-2188 Email: p.teillet@uleth.ca	Digital Imaging	<ul style="list-style-type: none"> • Spectro-radiometric imaging • Satellite sensor and image radiometry • Vegetation canopy spectral reflectance characterization

Researchers at Alberta Terrestrial Satellite Center (ATIC)

Name	Contact Information	Geomatics Discipline	Area of Expertise
Dr. Karl Staenz	Director, ATIC Professor, Geography & Science, University of Lethbridge Phone: (403) 317-9188 Ext. 23 Email: karl.staenz@imagingcenter.ca Web	Remote Sensing	<ul style="list-style-type: none"> Hyper-spectral remote sensing and quantitative remote sensing algorithm research and development
David Rolfson	Remote Sensing Analyst, ATIC Phone: (403) 317-9188 Ext. 26 Email: david.rolfson@imagingcenter.ca Web	Remote Sensing	<ul style="list-style-type: none"> Remote Sensing Analyst for ATIC. Currently working on a riparian, wetland and remnant area mapping project in central Alberta The main contact for academic researchers interested in licensing SPOT satellite imagery