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EDUCATION

- December, 1993 Ph.D. Geophysics, University of Miskolc, Miskolc, Hungary.
Dissertation: *Application of airborne geophysical and remote sensing methods in geology.*
- November, 1989 M.S. Applied Mathematics. Eötvös Loránd University, Budapest, Hungary.
Thesis: *Application of multivariate statistical methods for interpreting airborne geophysical data.*
- June, 1981 M.S. Geophysics, University of Miskolc, Miskolc, Hungary.
Thesis: *Numerical and analog modeling of direct current measurements.*

POSITIONS HELD

- 2006 – present **Assistant Professor**, Department of Geology, University at Buffalo, The State University of New York, Buffalo, New York.
- 2003—2006 **Research Scientist**, Byrd Polar Research Center (BPRC), The Ohio State University, Columbus, OH and **Adjunct Associate Professor**, Department of Civil and Environmental Engineering and Geodetic Sciences, OSU.
- 1997—2003 **Senior Research Associate**, BPRC, OSU, Columbus, OH.
- 1994—1997 **Research Associate**, BPRC, OSU, Columbus, OH.
- 1993—1994 **Research Scientist**, Eötvös Loránd Geophysical Institute (ELGI), Budapest, Hungary.
- 1992—1993 **Fulbright Scholar**, US Geological Survey, Flagstaff, Arizona.
- 1991—1992 **Head of R & D Department**, ELGI, Budapest, Hungary.
- 1981—1991 **Research Scientist**, ELGI, Budapest, Hungary.

AWARDS AND HONORS

- 2004 NASA, Group Achievement Award for ICESat Mission Development Team Members.
- 2001 Certificate of Appreciation, International Society of Photogrammetry and Remote Sensing (ISPRS).
- 2000 The President's Honorary Citation, ISPRS.
- 1998 Duane C. Brown Senior Award in photogrammetry, OSU.
- 1993 Dissertation with summa cum laude.
- 1992—1993 Fulbright Scholarship (10 months), US Geological Survey, Flagstaff, AZ.
- 1987 MS thesis in Applied Mathematics with distinction.
- 1985 Scholarship (2 months), Geological Survey of Finland, Espoo, Finland.
- 1981 MS thesis in Geophysics with distinction.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

2004 — present	American Society of Photogrammetry and Remote Sensing (ASPRS).
2000 — present	Institute of Electrical and Electronics Engineers (IEEE), (member of Data Fusion Committee of IEEE Geoscience and Remote Sensing Society).
1998 — present	American Association for the Advancement of Science (AAAS).
1994 — present	International Glaciological Society (IGS).
1992 — present	American Geophysical Union (AGU).
1992 — present	Society of Exploration Geophysicists (SEG).

RESEARCH PROJECTS

Csatho, B., *Collaborative research: IPY: POLNET/Greenland: Using bedrock geodesy to constrain past and present day changes in Greenland's ice mass*, National Science Foundation-Office of Polar Programs (NSF-OPP), 1/07-12/09 (collaborative proposal with OSU).

Csatho, B., T. Schenk and C.J. van der Veen, *Long-term mass balance of the Pacific Ocean sector of Antarctica based on multisensor fusion*, NASA, 12/06-11/09.

Csatho, B., T. Schenk and C.J. van der Veen, *Reconstruction the history of Greenland outlet glaciers since the Little Ice Age*, NASA, 5/06-4/07.

van der Veen, C.J., **B. Csatho**, E. Mosley-Thompson and D. Bromwich, *Understanding recent mass balance changes of the Greenland ice sheet*, NASA, 3/02-2/07.

Csatho, B., D. Bromwich, *Collaborative research: Science opportunities for a multidisciplinary long-range aircraft for Antarctic research*, NSF-OPP, 7/04-7/05.

Csatho, B., D. Bromwich, *Research Support for the Geoscience Laser Altimeter System (GLAS)*, NASA, subcontract from EG & G Services, 12/98-9/2005.

van der Veen, C.J., **B. Csatho**, *Pilot study for using ASTER images to map glacial geomorphology*, NASA, 5/04-5/05.

van der Veen, C.J., J. Box, D. Bromwich, **B. Csatho**, K. Jezek, E.M-Thompson, L. Thompson, *Glacial assessment: past, present and future: acquisition of essential research instrumentation*, NSF-OPP, 8/03-7/06.

Csatho, B., T. Schenk and C.J. van der Veen, *Investigating long term behavior of outlet glaciers in Greenland*, NASA, 6/03-8/04.

Csatho, B., *Airborne geophysics and remote sensing applied to study Greenland ice dynamics*, NASA, 1/01-12/01.

Csatho, B., *Create a digital elevation model of the Wallops/Ocean City area*, NASA, 10/00-4/01.

Whillans, I., **B. Csatho**, *Laser altimetry for ice-sheet volume balance: a use of the SOAR facility*, NSF-OPP, 6/97-5/01.

Wilson, T., **B. Csatho**, *Architecture and evolution of a rift accommodation zone: remote sensing of the Transantarctic Mountains*, NSF-OPP, 8/97-8/01.

PUBLICATIONS

JOURNAL PAPERS

- Csatho, B.**, C.J. van der Veen, T. Schenk, W. Krabill, in press. Intermittent thinning of Jakobshavn Isbræ, West Greenland, since the Little Ice Age. *Journal of Glaciology*.
- Forman, S.L., L. Marin, C.J. van der Veen, C. Tremper and **B. Csatho**, in press. Little Ice Age and neoglacial landforms at the Inland Ice margin, Isunguata sermia, west Greenland. *Boreas*, doi: 10.1080/00173130601173301.
- Braun, A., H-R. Kim, **B. Csatho**, R.R.B. von Frese, 2007. Gravity-inferred crustal thickness of Greenland. *Earth and Planetary Science Letters*, **262**, 138-158.
- Van der Veen, C.J., T. Leftwich, R. Von Frese, **B. Csatho** and J. Li, 2007. Subglacial topography and geothermal heat flux: potential interactions with drainage of the Greenland Ice Sheet. *Geophysical Research Letters*, **34**, L12501, doi:10.1029/2007GL030046.
- van der Veen, C.J. and **B. Csatho**, 2005. Spectral characteristics of Greenland lichens. *Geographie et Physique Quaternaire*, **59**(1), 63-73.
- Csatho, B.**, C.J. van der Veen and C. Tremper, 2005a. Trimline mapping from multispectral Landsat ETM+ imagery. *Geographie et Physique Quaternaire*, **59**(1), 49-62.
- Csatho, B.**, Y. Ahn, T. Yoon, C.J. van der Veen, S. B. Spikes, G. Hamilton, D. Morse, and S. Vogel, 2005b. ICESat measurements reveal complex patterns of thickness changes on Siple Coast ice streams, Antarctica. *Geophysical Research Letters*, **32**, L23S04, doi:1029/2005GL024289.
- Schenk, T., **B. Csatho**, C.J. van der Veen, Y. Ahn and T. Yoon, 2005. Registering imagery to ICESat data for monitoring elevation changes on Byrd Glacier, Antarctica. *Geophysical Research Letters*, **32**, L23S05, doi:10.1029/2005GL024328.
- Lyons, B.W., K.A. Welch, A.E. Carey, D.H. Wall, R.A. Virginia, A.G. Fountain, P.T. Doran, **B. Csatho** and C.M. Tremper, 2005. Groundwater seeps in Taylor Valley Antarctica: An example of a subsurface melt event, *Annals of Glaciology*, **40**, 200-206.
- Csatho, B.**, T. Schenk, W. Krabill, T. Wilson, W. Lyons, G. McKenzie, C. Hallams, S. Manizade and T. Paulsen, 2005c. Airborne laser scanning for high-resolution mapping of Antarctica. *EOS*, **86**(25), 237-238.
- Studinger, M., D. Bromwich, **B. Csatho**, R. Muench, T. Parish and J. Stith, 2005. Science opportunities for a long-range Antarctic Research Aircraft (LARA). *EOS*, **86**(4), 39-40.
- Krabill, W. , E. Hanna, P. Huybrechts, W. Abdalati, J. Cappelen, **B. Csatho**, E. Frederick, S. Manizade, C. Martin, J. Sonntag, R. Swift, R. Thomas, and J. Yungel, 2004. Greenland Ice Sheet: Increased coastal thinning. *Geophysical Research Letters*, **31**(24), doi:L24402, 10.1029/2004GL021533
- Spikes, V. B., **B. Csatho**, G. S. Hamilton and I. M. Whillans, 2003a. Thickness changes on Whillans Ice Stream and Ice Stream C, West Antarctica, derived from laser altimetry measurements. *Journal of Glaciology*, **49**(165), 223-230.
- Spikes, V. B., **B. Csatho**, and I. Whillans, 2003b. Laser profiling over Antarctic ice streams: methods and accuracy. *Journal of Glaciology*, **49**(165), 315-322.
- Filin, S., and **B. Csatho**, 2002. Improvement of elevation accuracy for mass balance monitoring using in-flight laser calibration. *Annals of Glaciology*, **34**, 330-334.
- Thomas, R., **B. Csatho**, C. Davis, C. Kim, W. Krabill, S. Manizade, J. McConnell, and J. Sonntag, 2001. Mass balance of higher-elevation parts of the Greenland ice sheet. *J. Geophys. Res.*, **106**(D24), 33,707-33,716 (2001JD900033).

- Bales, R. C., J. R. McConnell, E. Mosley-Thompson and **B. Csatho**, 2001. Historical and recent accumulation over the Greenland ice sheet. *J. Geophys. Res.*, **106**(D24), 33,813-33,826 (2001JD900153).
- van der Veen, C. J., D. H. Bromwich, **B. Csatho**, and C. Kim, 2001. Trend analysis of Greenland precipitation. *J. Geophys. Res.*, **106**(D24), 33,909-33,918 (2001JD900156).
- Schenk, T. and **B. Csatho**, 2001. Modellierung systematischer Fehler von abtastenden Laseraltimetern. *Photogrammetrie, Fernerkundung, Geoinformation*, **5**, 361-373.
- Thomas, R., T. Akins, **B. Csatho**, M. Fahnestock, P. Gogineni, C. Kim, and J. Sonntag, 2000. Mass balance of the Greenland ice sheet at high elevations. *Science*, **289**(5478), 426-428.
- Rignot, E., G. Buscarlet, **B. Csatho**, S. Gogineni, W. Krabill and M. Schmeltz, 2000. Mass balance of the northeast sector of the Greenland Ice Sheet: a remote sensing perspective, *J. Glaciol.*, **46**, 265-273.
- Thomas, R. H., W. Abdalati, T. Akins, **B. Csatho**, E. Frederick, P. Gogineni, W. Krabill, S. Manizade, and E. Rignot, 2000. Substantial thinning of a major east Greenland outlet glacier. *Geophysical Research Letters*, **27**(9), 1291-1294.
- Csatho, B.**, J. F. Bolzan, C. van der Veen, T. F. Schenk, and D-C. Lee, 1999. Surface velocities of a Greenland outlet glacier from high-resolution visible satellite imagery. *Polar Geography*, **23**, 71-82.
- van der Veen, C. J., W. B. Krabill, **B. Csatho**, and J. F. Bolzan, 1998. Surface roughness on the Greenland ice sheet from airborne laser altimetry. *Geophysical Research Letters*, **25**(20), 3887-3890.
- Bromwich, D. H., R. I. Cullather, Q-s. Chen, and **B. Csatho**, 1998. Evaluation of recent precipitation studies for the Greenland Ice Sheet. *J. Geophys. Res.*, **103**(D20), 26,007-26024.
- Thomas, R. H., **B. Csatho**, S. Gogineni, K. C. Jezek, and K. Kuivinen, 1998. Thickening of the western part of the Greenland ice sheet. *J. Glaciol.*, **44**(148), 653-658.
- Roman, D. R., **B. Csatho**, K. C. Jezek, R. H. Thomas, R. R. B. von Freese, R. Forsberg, W. Krabill, 1997. A comparison of geoid undulation models for west-central Greenland. *J. Geophys. Res.*, **102**(B2), 2807-2814.

PAPERS IN REFEREED PROCEEDINGS

- Wilson, T. and **B. Csatho**, 2007. Airborne Laser Swath mapping of Denton Hills, Transantarctic Mountains, Antarctica: Applications for structural and geomorphic mapping. Proceedings of *International Symposium on Antarctic Earth Science (ISAES), 2007*, U.S. Geological Survey and The National Academies; USGS OF-2007-1047, Short Research Paper 089; doi:10.3133/of2007-1047.srp089.
- Schenk, T. and **B. Csatho**, 2007. Fusing imagery and point clouds for reconstructing visible surfaces of urban scenes. Proceedings of *Urban 2007 Workshop*, April 11-13, 2007, Paris, France, 7 pages, doi:10.1109/URS.2007.371861. (invited)
- Merenyi, E., **B. Csatho**, K. Tasdemir, 2007. Knowledge discovery in urban environments from fused multi-dimensional imagery. Proceedings of *Urban 2007 Workshop*, April 11-13, 2007, Paris, France, 13 pages, doi:10.1109/URS.2007.371860. (invited)
- Csatho, B., T. Schenk and S. Seo, 2003. Spectral interpretation based on multisensor fusion for urban mapping. In *Proceedings of 2nd GRSS/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban Areas, URBAN 2003*, May 22-23, 2003, Berlin, 8-12.
- Schenk, T. and **B. Csatho**, 2002. Fusion of lidar data and aerial imagery for a more complete surface description. *International Archives of Photogrammetry and Remote Sensing*, **34**(3A), 310-317.
- Csatho, B., T. Schenk, S. Shin, and C. J. van der Veen, 2002. Investigating long-term behavior of Greenland outlet glaciers using high resolution imagery. *IGARSS '02*, Volume 2, 1047-1050.

BOOKS EDITED

Csatho, B., 1999. Proceedings of Joint workshop of ISPRS WG III/5 and III/2 on Mapping surface structure and topography by airborne and spaceborne lasers. *International Archives of Photogrammetry and Remote Sensing*, **32**(3 W14), 214 pages.

Baltsavias, E. P., **B. Csatho**, M. Hahn, A. Sieber, L. Wald, and D. Wang, 1999. Joint ISPRS/EARSeL Workshop on fusion of sensor data, knowledge sources and algorithms for extraction and classification of topographic objects. *International Archives of Photogrammetry and Remote Sensing*, **32**(7-4-3W6), 209 pages.

BOOK CHAPTERS

Csatho B., R. H. Thomas, W. B. Krabill, 1996. Mapping ice sheet topography with laser altimetry in Greenland. In *Glaciers, Ice Sheets and Volcanoes, A Tribute to Mark F. Meier*, ed. Samuel C. Colbeck, U. S. Army Corps of Engineers, Cold Region Research and Engineering Laboratory, 19-26.

Csatho, B., I. Szilágyi, and W. Seiberl, 1994. Airborne Geophysical Measurements in the Transdanubian Central Range (Hungary), In *Jubiläumsschrift 20 Jahre Geologische Zusammenarbeit Österreich-Ungarn*, Eds. H. Lobitzer, Á. Császár, and A. Daurer, Wien, 495-505.

Csatho B., Á. M. Pattantyus, 1988. Possibilities and experiences of geophysical prospecting at archaeological sites in Hungary, *Archaeometrical Research in Hungary*, National Centre of Museums, Budapest, 13-27.

PAPERS IN PROCEEDINGS

Schenk, T., B. Csatho and S. W. Shin, 2003. Rigorous panoramic camera model for DISP imagery. In *Proceedings of Joint Workshop of ISPRS Working Groups I/2, I/5, IC WG II/IV and EARSeL Special Interest Group: 3D Remote Sensing, High Resolution Mapping from Space 2003*, Oct. 6-8, 2003, Hannover (<http://www.ipi.uni-hannover.de/html/publikationen/2003/workshop/schenk.pdf>), 6 pages.

Filin S., B. Csatho, and T. Schenk, 2001. An analytical model for in-flight calibration of laser altimeter systems using natural surfaces. In *Proceedings of American Society of Photogrammetry and Remote Sensing (ASPRS) 2001*, April 24-27, 2001, St. Louis, Missouri, published on CD-ROM, 6 pages.

Csatho, B., Y-R. Lee, T. Schenk, W. Krabill, and J. McGarry, 2001. Creation of high resolution Digital Elevation Models (DEM) of Ocean City and Assateague Island, MD. *International Archives of Photogrammetry and Remote Sensing*, **34**(3 W4), 31-35.

Schenk, T., S. Seo, and B. Csatho, 2001. Accuracy study of airborne laser scanning data with photogrammetry. *International Archives of Photogrammetry and Remote Sensing*, **34**(3 W4), 113-118.

Felus, Y. A, and B. Csatho, 2000. Multi-source DEM evaluation at the Antarctica, Transantarctic mountains project. *International Archives of Photogrammetry and Remote Sensing*, **32**(B1), 117-123.

Kim, C., B. Csatho, R. Thomas, C. J. van der Veen, 2000. Studying and monitoring the Greenland ice sheet using GIS techniques. *International Archives of Photogrammetry and Remote Sensing*, **32**(B7/2), 678-685.

Csatho, B. M., K. Boyer, and S. Filin, 1999. Segmentation of laser surfaces. *International Archives of Photogrammetry and Remote Sensing*, **32**(3 W14), 73-80.

Schenk, T., B. M. Csatho and D-C. Lee, 1999. Quality control issues of airborne laser ranging data

and accuracy study in an urban area. *International Archives of Photogrammetry and Remote Sensing*, **32**(3 W14), 101-108.

Filin, S., and B. M. Csatho, 1999. A novel approach for calibrating satellite laser altimeter systems. *International Archives of Photogrammetry and Remote Sensing*, **32**(3 W14), 47-54.

Spikes, B, B. M. Csatho, and I. Whillans, 1999. Airborne laser profiling of Antarctic ice stream for change detection. *International Archives of Photogrammetry and Remote Sensing*, **32**(3 W14), 169-176.

Csatho, B. M., T. Schenk, D.-C. Lee and S. Filin, 1999. Inclusion of multispectral data into object recognition. *International Archives of Photogrammetry and Remote Sensing*, **32**(7-4-3 W6), 53-61.

Csatho, B., and T. Schenk, 1998. Surface reconstruction and object recognition of urban scenes from laser altimeter, stereo and multispectral data. *International Archives of Photogrammetry and Remote Sensing*, **32**(7), 336-341.

Csatho, B., and T. Schenk, 1998. Multisensor data fusion for automatic scene interpretation. *International Archives of Photogrammetry and Remote Sensing*, **32**(3/1), 60-65.

Csatho, B. M., W. B. Krabill, J. Lucas, T. Schenk, 1998. A multisensor data set of an urban and coastal scene. *International Archives of Photogrammetry and Remote Sensing*, **32**(3/2), 26-31.

Csatho, B. M., A. F. Schenk, R. H. Thomas, W. B. Krabill, 1996. Remote sensing of polar regions using laser altimetry. *International Archives of Photogrammetry and Remote Sensing*, **31**(B/I), 42-47.

Csatho, B. M., A. F. Schenk, R. H. Thomas, W. B. Krabill, 1995. Topographic mapping by laser altimetry. *Proceedings of SPIE*, **2572**, 10-20.

Merényi E., B. Csatho, M. Bodrogi, and Á. Gulyás, 1994. Utilization of Landsat images for mapping natural resources and for environmental protection in Hungary. In *Proceedings Tenth Thematic Conference on Geologic Remote Sensing, San Antonio, Texas, May 1994*, **2**, 491-502. (Awarded as Best Poster of Session).

Pattantyus Á. M., Csatho B., 1988. Prospecting with the EM-31 on Archaeological Sites. *Proceedings of the 26th International Archaeometry Symposium*, University of Toronto, 139-143.

Csatho B., Szarka L., Szigeti G., 1985. Some mathematical and physical modelling results for the EM frequency sounding methods. In *Proceedings of XXX. International Geophysical Symposium*, Moscow, Russia, 161-172.

TECHNICAL REPORTS, 1994-present

Studinger, M., D. Bromwich, B. Csatho, R. Muench, T. Parish and J. Stith. Scientific targets for a long-range aircraft for research in Antarctica, a workshop report. Distributed in hardcopy and posted on <http://polarmet.mps.ohio-state.edu/lara>, 54 pages.

Brenner, A. C., H. J. Zwally, C. R. Bentley, B. M. Csatho, D. J. Harding, M. A. Hofton, J.-B. Minster, L. A. Roberts, J. L. Saba, R. H. Thomas, and D. Yi, 2003. Derivation of range and range distribution from laser pulse waveform analysis for surface elevations, roughness, slope and vegetation heights. *Geoscience Laser Altimeter System (GLAS), Algorithm Theoretical Basis Document, version 4.0*, NASA, Goddard Space and Flight Center, 91 pages.

Filin, S., B. Csatho, 2000. An efficient algorithm for the synthesis of laser altimeter waveform. *BPRC Technical Report 2000-02*, 27 pages.

Filin, S., B. Csatho, 2000. An algorithm and application for visualization and analysis of scanning laser altimeter data. *BPRC Technical Report 2000-01*, 29 pages.

Roman, D. R., B. Csatho, K. C. Jezek, R. H. Thomas, W. B. Krabill, and K. Kuivinen, 1998. Gravity

values measured on the Greenland ice Sheet. *BPRC Technical Report*, 98-01, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, 39 pages.

Csatho B. M., R. H. Thomas, W. B. Krabill, 1996. Mapping ice sheet topography with laser altimetry in Greenland. *BPRC Technical Report No. 96-01*, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, 53 pages.

Csatho, B. M., and R. H. Thomas, 1995. Determination of sea ice surface roughness from laser altimetry waveform. *BPRC Technical Report No. 95-03*, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, 45 pages.

Sohn, H. G., K. C. Jezek, R. H. Thomas, K. Kuivinen, B. Csatho, 1994. Greenland ice sheet mapping with optical leveling and global positioning system. *BPRC Technical Report No. 94-03*, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, 98 pages.

OFFICES IN INTERNATIONAL SOCIETIES:

- Chair of ISPRS WG VIII/8: *Polar and Alpine Research*, 2004–2008.
- US representative of geospatial information and geodesy of *Scientific Committee on Antarctic Research (SCAR) Geosciences Standing Scientific Group*, 2004–2010.
- ISPRS representative for coordination of remote sensing and photogrammetry activities of International Polar Year, 2007-08.
- Co-chair of ISPRS WG III/6: *Multisensor Vision*, 2000–2004.
- Chair of ISPRS WG III/5: *Remote Sensing and Vision Theories for Automatic Scene Interpretation*, 1996–2000.

STEERING COMMITTEE/SCIENCE TEAM MEMBERSHIP:

- Science Team member of NASA's ICESat satellite mission, 2006-present.
- Member of steering committee of the NSF supported *Center for Airborne Laser Mapping (NCALM)*, 2003-2006.
- Member of steering committee of *Long-Range Antarctic Research Aircraft* initiative, 2004-2005.

FIELD WORK

- Alaska (permafrost studies, 2006, one week).
- Greenland (glaciology, 1995, 1996, 1997 and 2003, 3-6 weeks per year).
- Antarctica (geophysics and glaciology, 1997-98, 2 months, 1999-2000, 1 month).
- Cuba (geologic mapping with EM methods, 1989, 2 months).
- Hungary (field group leader, geoelectric and potential field methods, 1985-1987).

TEACHING

UNIVERSITY AT BUFFALO, SUNY, 2006-present

Graduate Students, Advisor:

Rich, J., M.S., *Investigation of the permafrost table through multi-resolution object oriented fuzzy analysis, North Slope, Alaska.*

Stewart, H., M.S., Title to be determined.

Courses Taught:

2007 Spring GLY 465/565, Environmental Remote Sensing.

2007 Fall GLY 560, GIS for Earth scientists.

THE OHIO STATE UNIVERSITY, 1994-2006

Graduate Students, co-advisor:

Dora, M., M.S., 2005. *A geomorphologic extraction method for mapping glacier-induced features from high-resolution topographic data in the Dry Valleys area, Antarctica.* (co-advisor) Filin, S., Ph.D.,

2001. Calibration of spaceborne and airborne laser altimeters using natural surfaces. (co-advisor)

Graduate Students, Committee Member:

Yoon, T., Ph.D., 2007 (expected). *Object recognition based on multi-agent, spatial reasoning.*

Huh, K-I., M.S., 2007. *Reconstructing Holocene glacier changes in west Greenland from multispectral imagery.*

Demyanick, E., M.S., 2006. Department of Geological Sciences.

Chun, B-S., M.S., 2005. Department of Civil and Environmental Engineering and Geodetic Sciences.

Kim, H-R., Ph.D., 2003. *Investigation of lithospheric magnetic anomalies in the Antarctic.*

Li H-T., Ph.D., 2003. *Autonomous Recovery of Exterior Orientation Parameters Using Free-Form Linear Features.*

Seo, S., 2003, Ph.D., 2003. *Model-based automatic building extraction from LIDAR and aerial imagery.*

Gamal, S., Ph.D., 2003. *On the suitability of conic sections in a single-photo resection, camera calibration, and photogrammetric triangulation.*

Methakullachat, D., Ph.D., 2002. *Surface Reconstruction Using 3D Linear Features.*

Lee, I., Ph.D., 2002. *3D Perceptual Organization of Laser Altimetry Data.*

Lee, Y-R., Ph.D., 2002. *Pose Estimation of Line Cameras Using Linear Features.*

Magenta, S., M.S., 2001. Department of Civil and Environmental Engineering and Geodetic Sciences.

Tuell, G., Ph.D., 2001. Department of Department of Civil and Environmental Engineering and Geodetic Sciences.

Felus, Y., Ph.D., 2001. *New methods for spatial statistics in GIS.*

Ahn, G-C., M.S., 2000. Department of Civil and Environmental Engineering and Geodetic Sciences.

Courses Taught:

- 1999 Winter GS828 Advanced data acquisition in photogrammetry: section on airborne laser ranging systems.
- 2000 Spring GS831 Advanced pattern recognition and image understanding: section on multi- and hyperspectral data processing.
- 2001 Spring GS830 Advanced methods of processing digital imagery in photogrammetry.
- 2004 Spring GS830 Advanced methods of processing digital imagery in photogrammetry.

SHORT COURSES

- 2002 **Lidar waveform processing and Data fusion** sections of Tutorial on Laser Altimetry, October 3-5, 2002, Columbus, OH.
- 2004 **Digital camera/sensors and data fusion:** one of three sections of EduServ2, a distance learning course organized by the European Spatial Data Research (EuroSDR) Education Service. Team teaching with C. Toth, OSU.
- 2005 **Digital cameras and image interpretation:** one of three sections of EduServ3, a distance learning course organized by the European Spatial Data Research (EuroSDR) Education Service. Team teaching with C. Toth, OSU.