Geodesy and Geomatics Engineering presents
Special Lecture
by

Dr. Adam Chrzanowski

Thursday, October 30, 2014 @ 1:45 pm

Head Hall, Room C-9

50 Years of Research and Development in Engineering and Mining Surveys at UNB

ABSTRACT

The lecture reviews history of major developments in engineering and mining surveys at UNB and summarizes their world-wide applications. Starting with the participation in the inspiring Mt. Kennedy expedition in 1965, the work progressed from the implementation of emerging laser technology into development of new surveying techniques of high precision, through pioneering applications of GPS in ground subsidence studies in 1980s and development of generalized method of geometrical analysis of structural and ground deformations, to the development of fully automated deformation monitoring systems. The research continues with a current focus on integrated analysis and physical interpretation of rock mass deformation for mining and energy industries. The developments are illustrated using selected projects such as subsidence studies in oil fields in Venezuela, monitoring of tectonic movements in Peru, design of geodetic control and tunnelling surveys for Superconducting Super Collider, the largest in the world accelerator of sub-atomic particles in Texas, monitoring and analysis of dam deformations in Canada, Pakistan and USA and monitoring of slope stability in open pit mines in Canada, Chile and Poland.