

GROUND SECURITY

INITIATIVE



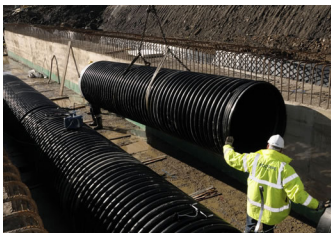
WHAT IS GROUND SECURITY?

Ground security is broadly defined as the management of soils to ensure an uninterrupted use of infrastructure (surface and buried) as well as to safeguard soils from geological hazards and climatic changes.

KEY GROUND SECURITY ISSUES IN SASKATCHEWAN:

1. Slope instability and infrastructure construction in problematic soils
2. Increase in desert type areas such as the Palliser triangle
3. Scarcity of geological materials (gravel) for road construction
4. Reduction in permafrost terrain in the north
5. Land erosion and mass wasting in badlands and lake beaches





RESEARCH EXPERTISE

The University of Regina has emerged as a center of research excellence on Ground Security. Prominent researchers in the Faculties of Science (Geology), Engineering (Geotechnical, Environmental, Electronics, Industrial), and Arts (Geography, Economics, Policy) work together to address issues associated with Ground Security in Saskatchewan. The diverse range of expertise can be broadly summarised into the following categories:

- Earth sciences (geology, geochemistry, hydrogeology), earth structures, geological materials, and soil degradation
- Environmental protection (floodplains, solid wastes), natural hazards (floods, climate change), and risk assessment
- Digital communications (signals, sensors, images), data mining, wise computing, and smart networking
- Socio-economic impacts, governance, society, and public policy

Contact Information:

Ground Security Research Lead

Shahid Azam, Ph.D., P.Eng.

Professor and Chair

Environmental Systems Engineering

Phone: 306-337-2369

E-mail: shahid.azam@uregina.ca

We acknowledge the support of the Natural Sciences and Engineering Research Council of Canada (NSERC).

Cette recherche a été financée par le Conseil de recherches en sciences naturelles et en génie du Canada (CRSNG).