The PermaSense Project
Monitoring Alpine Permafrost

Improved Modeling of Alpine Permafrost

Current Sensor Installations
Distances - Temperatures - Pressures

Technology
Ruggedized Packaging
State of the Art WSN Hardware

The Matterhorn Deployment Site
- Located in Zermatt, CH
- Matterhorn – 4478 m
- Site of a recent rockfall due to extreme warming (07/2003)
  - 25 nodes
  - Different sensors: temperature, rock electrodes, motion, ice and water pressure
  - –40 to +65°C
  - Rockfall, snow and ice, avalanches
  - 30 min. duty-cycle
  - 3 years unattended lifetime

Impressions from the Fieldwork

Cooperation with Stephan Gruber, Uni Zurich and Christian Tschudin, Uni Basel

National Competence Center in Research Mobile Information and Communication Systems