

## A STUDY OF TECHNOLOGY TO IMPROVE THE QUALITY OF WINTER EARTHWORKS IN COLD REGIONS

**Abstract :** Earthworks are not usually conducted in winter, since the quality of embankments constructed during the colder months is often insufficient due to low-temperature weather conditions, freezing of geomaterials, the presence of snow and other factors. However, earthworks are conducted in winter in some cases (such as post-disaster restoration and river embankments) due to the more advantageous conditions of the dry winter season. This study therefore examined construction technology to ensure the quality of earthworks conducted in winter through laboratory experiments and full-scale test construction of an embankment. The results revealed that the quality of earthworks completed in winter was inferior to those performed in summer, that the strength of stabilized soil did not increase at sub-zero temperatures, and that it was possible to present points for consideration regarding construction under such circumstances.

Keywords: earthworks in winter, quality, stabilization, construction