

SDPS: Surface Deformation Prediction System – Online Self Study



SDPS is a nationally-validated prediction program developed for OSMRE to quantify anticipated subsidence deformations and strains from underground longwall and high-extraction room and pillar mining operations. This course gives students a predictive tool to assist in evaluating the effects of subsidence.

This course is administered online in the Training Virtual Campus. Registration is open year-round; please inform your TIPS Training Contact or the TIPS Training Program Lead for registration.

Duration: Self Study
Course Code: VESD

TOPICS COVERED

Review of Subsidence Mechanisms And Theories

- ▼ Overview of Subsidence Parameters

Software Overview

- ▼ Configuration Options
- ▼ File Conventions

Required Field and Input Parameters Prediction of Surface Deformations

- ▼ Data Collection
- ▼ Maximum Subsidence Factor
- ▼ Location of the Inflection Point
- ▼ Angle of Principal Influence
- ▼ Horizontal Strain Coefficient
- ▼ Limitations of Empirical Parameters

Software Modules

- ▼ Profile Function
 - ◇ *Angle of Draw*
 - ◇ *Subsidence Profile*
- ▼ Influence Function
 - ◇ *Input Data*
 - ◇ *Mine Plan*
 - ◇ *Prediction Points*
 - ◇ *Empirical Parameters*
 - ◇ *Calculation Options*

- ▼ Graphing Module

- ◇ *2-D*
- ◇ *3-D*

- ▼ Pillar Stability

- ◇ *Conventional Pillar Stability*
- ◇ *Analysis of Longwall Pillar Stability (ALPS)*
- ◇ *Analysis of Retreat Mining Pillar Stability (ARMPS)*

Data Import and Export

- ▼ Importing Mine Plan through AutoCAD
- ▼ Importing Prediction Points through AutoCAD
- ▼ Exporting Subsidence Profiles to AutoCAD

Exercises with AutoCAD

Plotting and Printing

Peripheral Hardware

WHO SHOULD ATTEND: For engineers and/or geologists who work with subsidence prediction.

COURSE PRE-REQUISITES: None