Real Time Geomechanical Computer Monitoring at WIPP

Dennis E. Mathieu  
Westinghouse Corp.  
Waste Isolation Division Geotechnical Engineering

Tuesday, December 2, 1997, 11:45am to 1:30pm  
Side Room A, The Otowi  
Los Alamos National Laboratory  
Los Alamos, New Mexico

Abstract: Mr. Mathieu will discuss the installation and operational capabilities of CONSPEC 400; a computerized ground-control monitoring system in use at WIPP used in monitoring of underground geomechanical instruments. The system is installed at the Waste Isolation Pilot Plant in Carlsbad, New Mexico, and has received international acclaim; it monitors the deformation and stress changes occurring in the salt formations over time. From a central operating station, the system can poll 15,000 points at a scan rate of 10 milliseconds per point, and display and/or plot both real time and historical data. In addition, alarms are set to indicate significant changes in underground conditions. The acquired information then allows immediate assessments of the safety of underground operations and helps to ensure that safe underground structural conditions are maintained, using state-of-the-art monitoring techniques.

About the Speaker: Dennis Mathieu, Engineering Specialist in Geotechnical Engineering, has been employed with Westinghouse for past 8 years at the Waste Isolation Pilot Plant. Since the installation of the Ground Control Monitoring System in 1993, his responsibilities have consisted of implementation, operation, maintenance, and enhancements of the monitoring system. Prior to his current assignment, he has held various positions from miner to shift supervisor and consultant/trainer at various mine sites through-out the United States, Canada, and the Philippines. He has 25 years of experience in all aspects of mining and underground construction which includes shaft sinking, mine level development, the use of conventional drill and blast methods and continuous miner operations.

SECTION NEWS

Election for Section/Chapter Office

The 1998 Nominating Committee has presented a slate of IEEE members to stand for election to Section and Chapter offices. The committee was made-up of the Chairs of our three chapters:

Chris Borel, LEOS  
Rick Faehl, NPSS Chapter  
David Izraelevitz, Computer Society Chapter

The candidate list, short CV and election ballot is contained at the end of The Enlightenor. Please fill out the ballot and send it to Chris Borel, either by email (cborel@lanl.gov) or by mail (LANL, MS-D436, Los Alamos, NM 87545) before December 12, 1997.

E-Mail and WWW

If you have an email address and would like to receive The Enlightenor by email, please contact the editor (d.r.machen@ieee.org) or the soon-to-be editor (dwells@lanl.gov).

We have an IEEE-Los Alamos Section Web page for the IEEE, courtesy of the Section Membership Chairman Glen Wurden. The address is

http://www.ieee.lanl.gov/ieee.html

Submissions to ENLIGHTENOR

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