

ENERBLAST: Energy in Blasting and Comminution

Call for Joint Projects for the Internationalization of Research



The Project:

This Project intends to facilitate the collaboration between Politecnico di Torino (PoliTo, Italy) and Universidad Adolfo Ibañez (UAI, Chile) in a research on rock blasting and explosives engineering, taking advantage of the unique facilities of the Experimental Mine (EM) of UAI.

The EM is a research and educational facility located near the city of Rancagua, in central Chile. The EM consists of an underground mine, a surface mine and processing plant. The EM allows both real scale and lab-scale research in those fields of mining engineering that cannot be performed in standard research facilities. Such fields are, for instance, rock blasting, explosive testing, rock mass characterization and behavior.

The final goal is to achieve higher energy sustainability in the mining industry. To do so, the project will allow to understand the specific capacity of explosives to condition the rock and achieve a more efficient use of the explosive energy for rock comminution.

Specific Objectives:

The Project aims:

- understand the behavior of the grindability of rock under the influence of explosives charges to improve the comminution process.
- understand the disruptive power of commercial explosives

Partner:

 ADOLFO IBANEZ UNIVERSITY

Financial support:

ENERBLAST is granted by Politecnico di Torino under the framework of Compagnia di San Paolo collaboration for a total amount of **49.138,00 €**. Politecnico di Torino – Department of Environment, Land and Infrastructure Eng. - is involved in the person of **Prof. ssa Marilena Cardu**.

Project period: 14/07/2018 – 31/07/2019