

COLOMBIA AND THE UNESCO IGCP636 PROJECT TO PROMOTE GEOTHERMAL RESOURCES: RESEARCH ACTIVITIES AND INTERNATIONAL COLLABORATION



**Politecnico
di Torino**

Dipartimento di Ingegneria
dell'Ambiente, del Territorio
e delle Infrastrutture

Prof. Daniela Blessent

PhD., Ciencias de la Tierra – Professor of Ingeniería Ambiental, Universidad de Medellín (Colombia)

Friday 28 June 2024, 10.00 am

Aula Bibolini, DIATI door 3, ground floor

Abstract

The primary objective of the IGCP636 project is to promote the use of geothermal resources through the creation of an international scientific network. The three main objectives of this project are 1) to increase knowledge and understanding of deep geothermal reservoirs for power generation; 2) to conduct outreach activities and create audiovisual works for local communities to help improve perceptions of geothermal energy; and 3) to promote the installation of geothermal heat pumps for heating and cooling purposes.

The activities conducted involve academic and research institutions in various countries, spread across the 5 continents. In addition to the annual group workshop, webinars are being organized since 2022, through the online program Geotheroom. In these online talks, ongoing research at the involved institutes is described. In all activities, the priority is the participation of students, young researchers, and representatives of developing countries.

In Colombia, the research activities conducted at the Universidad are centered in the characterization of the geothermal system of the Nevado del Ruiz volcano, the creation of education and outreach tools, and the analysis of the prefeasibility of geothermal heat pump installations, considering the local climatic and economic conditions.



Daniela Blessent graduated from the Politecnico di Torino (Italy) in 2004 in Environmental Engineering. During her studies, she spent one year (2002-2003) at the Federal Polytechnic of Lausanne (Switzerland). She obtained a PhD in Earth Sciences in 2009, at Université Laval (Quebec, Canada), with focus on hydrogeological numerical modeling of fractured geological media. She then worked as a professor at Polytechnique de Montreal (Canada) from 2010 to 2012. Since 2013, she has been working at the Universidad de Medellín (Colombia) as professor in Environmental Engineering. Her research activities currently benefit from multiple international collaboration. She is currently leading the international project IGCP636 “Geothermal resources for energy transition”, which is part of the UNESCO International Geoscience Programme. She has been president of the Colombian Geothermal Association (AGECOL) from 2020 to 2023.



**Universidad
de Medellín**
Ciencia y Libertad



**PROJECT
636**
Geothermal
Resources for
Energy Transition
UNESCO
INTERNATIONAL GEOSCIENCE PROGRAMME