

# FOCUSED THROUGH THE CONDITIONAL PROBABILITY GIS TO CREATE A MAP OF THE LANDSLIDE SUSCEPTIBILITY IN THE MUNICIPALITY OF ANGANGUEO, MICH.

*Lucía Torres Fernández<sup>1</sup>, Víctor Manuel Hernández Madriga<sup>2</sup>, Francisco Javier Domínguez Mota<sup>3</sup>*

Fluids, friction and rheology, in rocks and porous media, oral presentation

**Keywords:** Conditional probability, landslides, susceptibility.

## **Abstrac:**

Every year during the rainy season, numerous landslides processes (LP) affects the population and their infrastructure. During the months of January and February in 2010, the eastern of Michoacan state, and particularly the town of Angangueo. They recorded atypical rainfall that triggered hundreds of LP which led to the burial of houses, bridges and roads, generating untold and unfortunate economic losses human deaths. This situation can be prevented in the future by susceptibility maps to the LP, to identify the critical areas where the performance of specific studies the design and implementation of forest conservation programs and civil works are necessary , as well as focusing on mitigation and prevention of LP. The proposed construction of the susceptibility map Angangeo Township, drawn from a conditional probabilistic approach developed within a Geographic Information System (GIS ) it is shown in this work.

In this approach the constraints of the LP factors are represented by thematic maps in combination with a map stock unstable bodies registered in 2010 , allowing the quantification of registered LP .

---

<sup>1</sup> *Universidad Michoacana de San Nicolás de Hidalgo, Instituto de Investigaciones Metalúrgicas. lucy1075@gmail.com*

<sup>2</sup> *Universidad Michoacana de San Nicolás de Hidalgo, Instituto de Investigaciones Metalúrgicas. vitorio\_manuel@yahoo.it*

<sup>3</sup> *Universidad Michoacana de San Nicolás de Hidalgo, Facultad de Ciencias Físico Matemáticas. dmota@umich.mx*