

Country Focus:  
Colombia, Mexico,  
and USA

The Digital University Institution of Antioquia (IU Digital) has launched its initiative "**Strengthening STEM Capacities among Rural Teachers via Active Learning Methods, Experimentation, and PhET Simulations**" through the support of an ITEN Seed Grant.



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The project is a collaboration between vicerector **Jorge Gómez** and teachers **Julián Ramírez** and **Laura Arboleda** of IU Digital of Colombia, and Mexican physics educator **Diana López** of PhET Interactive Simulations of the University of Colorado at Boulder, USA.

The objective of the project is to **support teachers to incorporate science experiments and low-cost experiments in their lesson plans**, strengthening conceptual learning and STEM skills.



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On 12 March, IU Digital held a face-to-face workshop with 16 rural teachers to provide training on PhET simulations and related hands-on activities.





The full Seed Grant project extends beyond any single workshop or course. It includes an extensive set of curricular development and training opportunities for teachers across Colombia, with an emphasis on supporting rural teachers.



This Project has produced the following:

## Learning Platform

This open-access platform includes **20 guides** for fundamental concepts across physics, biology, and chemistry. This page will be accessible to thousands of teachers across the region.

Each guide includes **pedagogical support** and **student readings and worksheets** corresponding to interactive simulations and hands-on activities.



Click here to access these resources.



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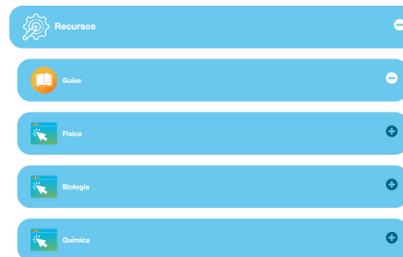


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## Course on Active Learning Methods

From 19 April to 23 May 2021, IU Digital will launch a course, "Active Methods in STEM." This online course will include the following:

- Unit 1: Active Learning
- Unit 2: Resources for active learning
- Unit 3: Scientific and mathematical knowledge
- Unit 4: Some active learning methods



## Workshops

This project includes three waves of virtual and in-person workshops specifically focused on the use of experiments and simulations:

- 5 in-person workshops for rural teachers of Antioquia (*started in March 2021*)
- 5 virtual workshops (*starting in May 2021*)
- 5 in-person workshops for rural teachers and students in Antioquia (*starting in August 2021*)

teachers enrolled

2,914