World Academy of Science, Engineering and Technology
International Journal of Civil and Architectural Engineering
Vol:16, No:05, 2022

Simulations in Structural Masonry Walls with Chases Horizontal Through Models in State Deformation Plan (2D)

Authors : Raquel Zydeck, Karina Azzolin, Luis Kosteski, Alisson Milani

Abstract : This work presents numerical models in plane deformations (2D), using the Discrete Element Method formedbybars (LDEM) andtheFiniteElementMethod (FEM), in structuralmasonrywallswith horizontal chasesof 20%, 30%, and 50% deep, located in the central part and 1/3 oftheupperpartofthewall, withcenteredandeccentricloading. Differentcombinationsofboundaryconditionsandinteractionsbetweenthemethodswerestudied.

Keywords : chases in structural masonry walls, discrete element method formed by bars, finite element method, numerical models, boundary condition
Conference Title : ICMCBCM 2022 : International Conference on Masonry Construction, Brick and Concrete Masonry
Conference Location : Montreal, Canada
Conference Dates : May 23-24, 2022