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Research Article

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[BIM methodology implementation in structural design: Adaptation of procedures and information management](#)

Published On: October 21, 2022 | Pages: 093 - 099

Author(s): Gonçalo Ferreira Azevedo*

Building Information Modelling (BIM) is a methodology that accompanies technological evolution and consists of a set of processes and tools that allows the creation of a three-dimensional digital model. This model centralizes information, facilitating its access and exchange between the entities along the life cycle of a building. This study focuses on the applicatio ...

[Abstract View](#) | [Full Article View](#) | DOI: 10.17352/2455-488X.000058

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[Wood-cement-steatite panels used in replacement of gypsum boards in residential and commercial buildings: contribution to the thermal mass](#)

Published On: October 18, 2022 | Pages: 084 - 092

Author(s): Viet-Anh Vu, Benoit Bissonnette*, Alain Cloutier and Pierre Blanchet

This article reports the results of a study carried out to evaluate the influence of wood-cement-steatite partitions on the thermal performance of a small building. The interior walls of two identical 2.0 × 2.5 × 3.0 m experimental wooden frame huts (tiny houses, with one door and one window), designed and built following the National Building Code of Canada, were cov ...

[Abstract View](#) | [Full Article View](#) | DOI: 10.17352/2455-488X.000057

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[The protection of reinforced concrete structures: Active and passive systems](#)

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Author(s): Christian Paglia*

The conservation state, maintenance, repair, and complete restoration of reinforced concrete structures are recurring actions necessary to preserve the built infrastructure. A big issue related to enormous costs aimed at extending the service life of construction systems and addressed to sustainability. In the investigated cases of buildings and civil engineering stru ...

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[Structural health monitoring and modal parameters identification of Mezcala Bridge](#)

Published On: July 29, 2022 | Pages: 062 - 067

Author(s): Miguel Anaya-Diaz, Francisco J Carrion-Viramontes, Juan A Quintana-Rodriguez, Luis A Martinez-Trujano and Jose M Machorro-Lopez*

Since 2016 the Instituto Mexicano del Transporte (Mexican Transport Institute) has continuously instrumented and performed the structural monitoring of the Mezcala Bridge, which is a cable-stayed bridge located in the State of Guerrero, Mexico. In order to identify early damage, several monitoring strategies based on changes in the bridge modal parameters have been im ...

[Abstract View](#) | [Full Article View](#) | DOI: 10.17352/2455-488X.000052

Mini Review

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[Membrane-assisted reactor for the direct conversion of CO₂ to DME/MeOH](#)

Published On: August 04, 2022 | Pages: 068 - 070

Author(s): Francesco Frusteri*, Giuseppe Bonura, Catia Cannilla, Serena Todaro and Alessandro Cajumi

Several strategies are currently underway to investigate alternative routes to efficiently use CO₂ as a carbon source for the production of alternative fuels for energy end transportation [1,2]. ...

[Abstract View](#) | [Full Article View](#) | DOI: 10.17352/2455-488X.000053

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Wildfires: A rising hazard for infrastructure resilience

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Author(s): Liz Varga*

The latest wildfires around the globe are evidence of growing global temperatures that are a threat to infrastructure resilience. Wildfires are exacerbated by drought and parched conditions, disease, dry lightning and increased interaction between humans and forests leading to accidental as well as purposeful ignition. ...

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