United Nations Educational, Scientific and Cultural Organization · Intergovernmental Hydrological Programme · UNESCO Land Subsidence International Initiative

Newsletter of the Unesco Land Subsidence International Initiative

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New Literature

Pre-publication

Andrea Franceschini et al.,

Unexpected fault activation in underground gas storage. Part I: Mathematical model and mechanisms

https://www.researchgate.net/publication/372950711_Unexpected_fault_activation_in_underground_gas_storage_Part_I_Mathematical_model_and_mechanisms

India, Delhi

Tiwari, D.K., Hari, M., Kundu, B. et al. Delhi urbanization footprint and its effect on the earth's subsurface state-of-stress through decadal seismicity modulation. Sci Rep 13, 11750 (2023). https://doi.org/10.1038/s41598-023-38348-7

India, Lolkate

Shastri, A., Sreejith, K.M., Rose, M.S. et al. Two decades of land subsidence in Kolkata, India revealed by InSAR and GPS measurements: implications for groundwater management and seismic hazard assessment. Nat Hazards (2023). https://doi.org/10.1007/s11069-023-06107-6

Indonesia, Jakarta

I Marwanza et al.,

LAND SUBSIDENCE AND GEOTECHNICAL IMPACT OF JAKARTA KOTA AREAI Marwanza

https://e-journal.trisakti.ac.id/index.php/urbanenvirotech/article/view/13981/9765

Retno Dammayatr et al.,

Green Open Space and Barren Land Mapping for Flood Mitigation in Jakarta, the Capital of Indonesia

https://www.researchgate.net/publication/373233304_Green_Open_Space_and_Barren_Land_Mapping_for_Flood_Mitigation_in_Jakarta_the_Capital_of_Indonesia

Iran, Rafsanjan Plain

Bockstiegel, M., Richard-Cerda, J.C., Muñoz-Vega, E. et al. Simulation of present and future land subsidence in the Rafsanjan plain, Iran, due to groundwater overexploitation using numerical modeling and InSAR data analysis. Hydrogeol J (2023). https://doi.org/10.1007/s10040-023-02657-y

PR China, Luoyang City

Yizhan Zhao, Lv Zhou, Heng Luo, Yan Li, Xinyi Li, Yuanjin Pan & Youju Huang (2023) Urban subsidence in Rapid Economic Development: The Case of Luoyang city, Henan Province, All Earth, DOI: 10.1080/27669645.2023.2249666

https://www.tandfonline.com/action/showCitFormats?doi=10.1080%2F27669645.2023.2249666&area=0000000000000010

PR China, Pipelines

Liang Lin et al.,

Experimental Study on Mechanical Response of Oil and Gas Pipelines under Ground Subsidence

https://iopscience.iop.org/article/10.1088/1742-6596/2553/1/012057

Spain, Alto Guadalentín aquifer

Esteban, Encarna and Dinar, Ariel and Calvo, Elena and Calatrava, Javier and Albiac, Jose and Herrera, Gerardo and Teatini, Pietro and Tomás, Roberto and Ezquerro, Pablo and Li, Yang, Modeling the Optimal Management of Land Subsidence Due to Aquifers Overexploitation. Available at SSRN: https://ssrn.com/abstract=4537624 or http://dx.doi.org/10.2139/ssrn.4537624

USA, Texas (and New Mexico)

Peter Hennings et al.,

Development of complex patterns of anthropogenic uplift and subsidence in the Delaware Basin of West Texas and southeast New Mexico, USA

https://www.researchgate.net/publication/373379185_Development_of_complex_patterns_of_anthropogenic_uplift_and_subsidence_in_the_Delaware_Basin_of_West_Texas_and_southeast_New_Mexico_USA

Vietnam, Ca Mau Province

Pham, Van Cam et al.,

Groundwater Use Habits and Environmental Awareness in Ca Mau Province, Vietnam: Implications for Sustainable Water Resource Management

https://publikationen.bibliothek.kit.edu/1000161316

Mining

PR China, Shanxi Province

Lian Xue, Xue Zhao, Hu Li, Jie Zheng, Xiuqiang Lei, Xue Gong,

Genetic algorithm-based parameter inversion and pipeline subsidence prediction,

Journal of Applied Geophysics, Volume 215,2023,

https://doi.org/10.1016/j.jappgeo.2023.105133.

(https://www.sciencedirect.com/science/article/pii/S0926985123002112)

Jinyang Li et al.,

An Interferometric-Synthetic-Aperture-Radar-Based Method for Predicting Long-Term Land Subsidence in Goafs through the Concatenation of Multiple Sources of Short-Term Monitoring Data

https://www.researchgate.net/publication/373473960_An_Interferometric-Synthetic-Aperture-Radar-Based_Method_for_Predicting_Long-Term_Land_Subsidence_in_Goafs_through_the_Concatenation_of_Multiple_Sources_of_Short-Term_Monitoring_Data

Yalei Zhe et al.,

Early warning technique research of surface subsidence for safe mining in underground goaf in Karst Plateau zone

https://www.frontiersin.org/articles/10.3389/feart.2023.1266649/abstract

From the Press

India, Delhi

Groundwater crisis: Delhi's sinking reality

https://groundreport.in/groundwater-crisis-delhis-sinking-reality/

Iran, Esfahan

https://www.iranintl.com/en/202308142171

Mexico, Mexico City

Mexico City closes metro stations due to subsidence

https://www.bnamericas.com/en/news/mexico-city-closes-metro-stations-due-to-sinking-land

Usa, Louisiana

A billion-dollar coastal restoration project begins in Louisiana. Will it work as sea levels rise?

https://www.pbs.org/newshour/science/a-billion-dollar-coastal-restoration-project-begins-in-louisiana-will-it-work-as-sea-levels-rise

Special Issue

NJG (Netherlands Journal of Geosciences) Thematic Issue Groundwater and Sustainability Transitions

Deadline for Submissions: 30th April 2024

https://www.cambridge.org/core/journals/netherlands-journal-of-geosciences/collections/njg-thematic-issue-groundwater-and-sustainability-transitions