# Newsletter of the Unesco Land Subsidence International Initiative

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Please, send your comments and suggestions to John.Lambert@deltares.nl

## New Literature

### Germany, NW Germany

Stephan L. Seibert et al.,

Understanding Climate Change and Anthropogenic Impacts on the Salinization of Low-Lying Coastal Groundwater Systems.

https://www.researchgate.net/publication/382850963_Understanding_Climate_Change_and_Anthropogenic_Impacts_on_the_Salinization_of_Low-Lying_Coastal_Groundwater_Systems/references

### Indonesia, Palabuhanratu Bay

IOP Conference Series: Earth and Environmental Science

Eva Novita et al.,

Relative and Absolute Sea Level Change Variability in The Waters

https://iopscience.iop.org/article/10.1088/1755-1315/1275/1/012015/meta

### Iran

Mahmud Haghshenas Haghigh et al.,

Treating Tropospheric Phase Delay in Large-scale Sentinel-1 Stacks to Analyze Land Subsidence

https://www.researchgate.net/publication/382837759_Treating_Tropospheric_Phase_Delay_in_Large-scale_Sentinel-1_Stacks_to_Analyze_Land_Subsidence/references

***Iran, Dehgolan Plain***

Mohsen Isari et al.,

Evaluation of subsidence phenomenon by Multilayer Perceptron Artificial Neural Network (case study: Dehgolan Plain, Kurdistan Province)

https://www.jewe.ir/article_201928.html?lang=en


***Italy, Prato***

Medici, C., Del Soldato, M., Fibbi, G. et al. InSAR data for detection and modelling of overexploitation-induced subsidence: application in the industrial area of Prato (Italy). Sci Rep 14, 17950 (2024). https://doi.org/10.1038/s41598-024-67725-z


***New Zealand***

InSAR Measurement of Vertical Land Motion at Urban and Rural New Zealand Coastal Strips

https://openaccess.wgtn.ac.nz/articles/thesis/InSAR_Measurement_of_Vertical_Land_Motion_at_Urban_and_Rural_New_Zealand_Coastal_Strips/26762428?file=48616303


***PR China, Beijing Plain***

Mingyuan Lyu et al.,

Nonlinear Evolutionary Pattern Recognition of Land Subsidence in the Beijing Plain

https://www.researchgate.net/publication/382823603_Nonlinear_Evolutionary_Pattern_Recognition_of_Land_Subsidence_in_the_Beijing_Plain/references


***PR China, Decheng District***

Jinming Hu et al.,

Simulation and prediction of land subsidence in Decheng District under the constraint of InSAR deformation information (Provisionally accepted)

https://www.frontiersin.org/journals/earth-science/articles/10.3389/feart.2024.1458416/abstract


***PR China, Hangzhou***

Yu, B., Yan, J., Li, Y. et al. Risk Assessment of Multi-Hazards in Hangzhou: A Socioeconomic and Risk Mapping Approach Using the CatBoost-SHAP Model. Int J Disaster Risk Sci (2024). https://doi.org/10.1007/s13753-024-00578-2

*PR China, Nantong*

Fan, D., Tan, Y., Tang, Y. (2024). Prediction on Ground Settlement Due to Pumping by a Hybrid Method. In: Wang, S., Huang, R., Azzam, R., Marinos, V.P. (eds) Engineering Geology for a Habitable Earth: IAEG XIV Congress 2023 Proceedings, Chengdu, China. IAEG 2023. Environmental Science and Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-99-9069-6_5


*PR China, Sanjiang Plain*

Zihan Ling et al.,

Characteristics of groundwater drought and its propagation dynamics with meteorological drought in the Sanjiang Plain, China: Irrigated versus nonirrigated areas.

https://www.researchgate.net/publication/382794674_Characteristics_of_groundwater_drought_and_its_propagation_dynamics_with_meteorological_drought_in_the_Sanjiang_Plain_China_Irrigated_versus_nonirrigated_areas/references


*PR China, Shanghai*

Wang, J., Yang, T., He, Q., Stouthamer, E., Huang, X., Liu, X. (2024). Land Subsidence Mechanism Under the Influence of Deep Recharging, Intermediate Dewatering and Shallow Loading in Shanghai. In: Wang, S., Huang, R., Azzam, R., Marinos, V.P. (eds) Engineering Geology for a Habitable Earth: IAEG XIV Congress 2023 Proceedings, Chengdu, China. IAEG 2023. Environmental Science and Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-99-9203-4_5


*PR China, Shenhu Area*

Benjian Song et al.,

Seafloor Subsidence Evaluation Due to Hydrate Depressurization Recovery in the Shenhu Area, South China Sea

https://www.mdpi.com/2077-1312/12/8/1410


*PR China, Shenzhen*

Wang, Y., Fan, R., Yan, J. et al. An analysis of urban land subsidence susceptibility based on complex network. Nat Hazards (2024). https://doi.org/10.1007/s11069-024-06815-7

### PR China, Taiyuan

Wei Tang et al.,

Land surface response to groundwater drawdown and recovery in Taiyuan city, Northern China, analyzed with a long-term elevation change measurements from leveling and multi-sensor InSAR

https://www.researchgate.net/publication/382857244_Land_surface_response_to_groundwater_drawdown_and_recovery_in_Taiyuan_city_Northern_China_analyzed_with_a_long-term_elevation_change_measurements_from_leveling_and_multi-sensor_InSAR/references

### PR China, Xiamen

Yuanrong He et al.,

Surface Deformation of Xiamen, China Measured by Time-Series InSAR.

https://www.researchgate.net/publication/383258979_Surface_Deformation_of_Xiamen_China_Measured_by_Time-Series_InSAR/references

### Taiwan, Choushui River fluvial plain

Thai-Vinh-Truong Nguyen et al.,

Quantitative Evaluations of Pumping-Induced Land Subsidence and Mitigation Strategies by Integrated Remote Sensing and Site-Specific Hydrogeological Observations

https://www.preprints.org/manuscript/202408.1292/v1/download#:~:text=Abstract%3A%20Land%20subsidence%20is%20an,civilian%20buildings%20and%20essential%20infrastructures.

### USA, San Luis Valley

Sanaz Vajedian et al.,

Aquifer system deformation in the San Luis Valley: A new framework for modeling subsidence in agricultural regions.

https://www.sciencedirect.com/science/article/abs/pii/S0022169424012721

### USA, Texas

Xiongchuan Chen, Shuangcheng Zhang, Yong Fang, Bin Wang, Ning Liu, Ningkang An, Jun Li, Zhijie Feng, Sijiezi Li,

CORS Station for Synergistic Monitoring of Multivariate Surface Parameters in Expansive Soils.

https://www.sciencedirect.com/science/article/abs/pii/S0273117724008639

# PhD

### *The Netherlands, Wageningen*

PhD position on Sinking river deltas: modelling of land subsidence processes, projecting impacts of relative sea-level rise and designing solutions

https://www.iamexpat.nl/career/jobs-netherlands/wageningen/research-academic/phd-position-sinking-river-deltas-modelling

# PhD

# Mapping

Kourosh Shirani, Mehrdad Pasandi,

# Mining

**India, Talcher Region**

Estimation of Mining Subsidence in Talcher Region using Time Series Earth Observation Data.

https://www.geosocindia.org/index.php/jgsi/article/view/173962

**PR China, Zhaogu**

Wang, J., Wu, S., Wang, Z. et al. A Prediction Method for Surface Subsidence at Deep Mining Areas with Thin Bedrock and Thick Soil Layer Considering Consolidation Behavior. Nat Resour Res (2024). https://doi.org/10.1007/s11053-024-10395-5

# From the Press

**Philippines, Iloilo City**

Iloilo City sinks 9 mm per year – study

https://www.manilatimes.net/2024/08/27/regions/iloilo-city-sinks-9-mm-per-year-study/1966919