

Cornelis van Westen
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Department of Earth Systems Analysis
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Personal profile

Cees van Westen is Full professor Multi-Hazard Risk Dynamics at the Earth System Analysis Department of the faculty of Geo-information Science and Earth Observation (ITC), Twente University, the Netherlands. After obtaining his MSc in Physical Geography from the University of Amsterdam in 1988, he joined the International Institute for Geo-Information Science and Earth Observation (ITC) as PhD researcher and specialized in the use of Remote Sensing and Geographic Information Systems for natural hazard and risk assessment. He obtained his Ph.D. in Engineering Geology from the Technical University of Delft in 1993, with research on "Geographic Information Systems for Landslide Hazard Zonation". He is working in the Department of Earth Systems Analysis, and contributes to the research theme 4D-Earth, specifically to Natural Hazards and Disaster Risk Management. He was involved in projects related to the development of open source GIS software and developed many training materials on the use of GIS for hazard and risk assessment. From 2005- 2015 he was Director of the United Nations University - ITC Centre on Geoinformation for Disaster Risk Management. The overview of activities of the UNU-DGIM can be downloaded [here](#). He has carried out research on different hazard and risk related aspects: landslide hazard and risk (e.g. Austria, Switzerland, Italy, Romania, India, China, Vietnam, Colombia, Central America, Caribbean), volcanic hazard and risk assessment (Colombia, Philippines, Central America, South America) and technological risk assessment (India). He worked on national scale risk assessment projects in Central America, the Caribbean, Caucasus, and Central Asia. His current research interest is to develop methods for the analysis of changing multi-hazard risk. These changes can be abrupt, e.g. after major disasters (e.g. earthquakes, tropical storms, volcanic eruptions), or gradual (e.g. analyzing how future scenarios of climate change, land-use change and population change have an impact on risk) or as a decision support tool for the planning of risk reduction measures.

Employment

Full Professor

Department of Earth Systems Analysis
University of Twente
1 Mar 2020 → present

Full Professor

Department of Applied Earth Sciences
University of Twente
1 Jul 2023 → present

Full Professor

Faculty of Geo-Information Science and Earth Observation
University of Twente
1 Mar 2020 → present

Full Professor

UT-I-ITC-4DEarth
1 Mar 2020 → present

Full Professor

Digital Society Institute
University of Twente
1 Jan 2018 → present

Research output

From spatio-temporal landslide susceptibility to landslide risk forecast

Wang, T., Dahal, A., Fang, Z., van Westen, C., Yin, K. & Lombardo, L., Mar 2024, In: Geoscience Frontiers. 15, 2, 101765.

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Impact-based probabilistic modeling of hydro-morphological processes in China (1985–2015)

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A breakthrough in fast flood simulation

van den Bout, B., Jetten, V. G., van Westen, C. J. & Lombardo, L., Oct 2023, In: Environmental Modelling and Software. 168, 105787.

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Wang, T., Dahal, A., Fang, Z., van Westen, C., Yin, K. & Lombardo, L., 10 Jun 2023, Earth ArXiv, 32 p.

Mapping landslides through a temporal lens: an insight toward multi-temporal landslide mapping using the u-net deep learning model

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van den Bout, B., Tang, C., van Westen, C. & Jetten, V. G., 6 Oct 2022, In: Natural hazards and earth system sciences. 22, 10, p. 3183-3209 27 p.

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