

Iulian-Horia HOLOBĂCĂ is professor at the Faculty of Geography, UBB Cluj and director of the Remote Sensing and Environmental Observation Laboratory (GEOTOMLAB).

Areas of expertise: climatology, remote sensing, glaciology

Research topics:

1. The analysis of current and projected climate changes and aspects of their impact on the environment:

1. **Holobăcă, I.H.**, Croitoru, A.E., Moldovan, F.M. (2008). Variability in Precipitation and Temperature in Romania during the 20th Century. Fourth International Conference, Global Changes and Problems, Theory and Practice, "St. Kliment Ohridski" University Press, Sofia, Editor: ***, P. 438-443.
2. Croitoru, A.E., **Holobăcă, I.H.**, Lazar, C., Moldovan, F.D., Imbroane A. (2012). Air temperature trend and the impact on winter wheat phenology in Romania. *Climatic Change*, **111**(2), 393-410. doi: 10.1007/s10584-011-0133-6.
3. **Holobăcă, I.H.**, Alexe, M. (2018). Analyse des changements dans la distribution spatiale des valeurs des indices bioclimatiques en roumanie a l'aide du modele climatique regional RACMO22E. Les échelles spatiales et temporelles fines, XXXVI colloque de l'Association Internationale de Climatologie, UMR 7300 ESPACE (CNRS/Université de Nice Sophia Antipolis), Editor: Nicolas Martin, 300-306.

2. Associations between environmental stressors, climate and health coordinated by the London School of Hygiene and Tropical Medicine research team, with the support of a Scientific Committee that supervises and directs the research work of the MCC recherche collaborative network:

Meng X, Liu C, Chen R, Sera F, Vicedo-Cabrera AM, Milojevic A, Guo Y, Tong S, Coelho MSZS, Saldiva PHN, Lavigne E, Correa PM, Ortega NV, Osorio S, Garcia, Kyselý J, Urban A, Orru H, Maasikmets M, Jaakkola JJK, Ryti N, Huber V, Schneider A, Katsouyanni K, Analitis A, Hashizume M, Honda Y, Ng CFS, Nunes B, Teixeira JP, **Holobăcă IH**, Fratianni S, Kim H, Tobias A, Íñiguez C, Forsberg B, Åström C, Ragetti MS, Guo YL, Pan SC, Li S, Bell ML, Zanobetti A, Schwartz J, Wu T, Gasparrini A, Kan H. (2021). Short term associations of ambient nitrogen dioxide with daily total, cardiovascular, and respiratory mortality: multilocation analysis in 398 cities. *British Medical Journal*, 372-534.

3. Use of remote sensing in observing the impact of climate change on a local scale:

1. **Holobăcă, I.H.** (2016). Recent retreat of the Elbrus glacier system. *Journal of Glaciology*, **62**(231), 94-102. doi:10.1017/jog.2016.15.
2. **Holobăcă, I.H.**, Tielidze, L., Ivan, K., Elizbarashvili, M., Alexe, M., Germain, D., ... Gaprindashvili, G. (2021). Multi-sensor remote sensing to map glacier debris cover in the Greater Caucasus, Georgia. *Journal of Glaciology*, 1-12. doi:10.1017/jog.2021.47.

4. Use of dendrochronology to reconstruct climate variability

Holobăcă, I.H., Pop, O.T., Petrea, D.P. (2016). Dendroclimatic reconstruction of late summer temperatures from upper treeline sites in Greater Caucasus. *Quaternary International*, **54**, 67-73.

5. Use of remote sensing to analyze the spatio-temporal structures of inequalities and polarization

Ivan, K., **Holobăcă, I.H.**, Benedek, J., Török, I. (2020). Potential of Night-Time Lights to Measure Regional Inequality. *Remote Sensing*, **12**(1), 33.

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