

Iulian-Horia HOLOBĂCĂ este profesor la Facultatea de Geografie, UBB Cluj și director al Laboratorului de Teledetecție și Observarea Mediului (GEOTOMLAB).

Arii de competență: climatologie, teledetecție, glaciologie

Teme de cercetare:

1. Analiza schimbărilor climatice actuale și proiectate și impactului acestora asupra mediului

1. **Holobacă, 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., **Holobacă, 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. **Holobacă, I.H.**, Alexe, M. (2018). Analyse des changements dans la distribution spatiale des valeurs des indices bioclimatiques en Roumanie à l'aide du modèle climatique régional 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. Studiul relațiilor între factorii de stres de mediu, climă și sănătate coordonat de echipa de cercetare London School of Hygiene and Tropical Medicine, cu sprijinul unui Comitet Științific care supraveghează și dirijează activitatea de cercetare a rețelei de cercetare colaborativă MCC

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, Rytü N, Huber V, Schneider A, Katsouyanni K, Analitis A, Hashizume M, Honda Y, Ng CFS, Nunes B, Teixeira JP, **Holobacă IH**, Fratianni S, Kim H, Tobias A, Íñiguez C, Forsberg B, Åström C, Ragettli 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. Utilizarea teledetecției în observarea impactului schimbărilor climatice la scară locală

1. **Holobacă, I.H.** (2016). Recent retreat of the Elbrus glacier system. *Journal of Glaciology*, **62**(231), 94-102. doi:10.1017/jog.2016.15.
2. **Holobacă, 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. Utilizarea dendrocronologiei pentru a reconstrui variabilitatea climei

Holobacă, 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. Utilizarea teledetecției pentru analiza structurilor spațio-temporale ale inegalităților și polarizării

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

Date de contact: iulian.holobaca@ubbcluj.ro

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 à l'aide du modèle climatique régional 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 research 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, Rytö N, Huber V, Schneider A, Katsouyanni K, Analitis A, Hashizume M, Honda Y, Ng CFS, Nunes B, Teixeira JP, **Holobăcă IH**, Fratianne S, Kim H, Tobias A, Íñiguez C, Forsberg B, Åström C, Ragettli MS, Guo YL, Pan SC, Li S, Bell ML, Zanobetti A, Schwartz J, Wu T, Gasparini 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., ... Gavrindashvili, 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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