

Humboldt Kolleg

Hilton Garden Inn Hotel, Doamnei St. 12, Bucharest  
18-22 November 2020

### *Global Challenges of the 21<sup>st</sup> Century*

- 1) Technological development and human health/ quality of life*
- 2) Climate change and environmental sustainability*
- 3) Democracy and cohesion in Europe*

### *Urban Climate and Climate Change Challenges in South-Eastern Europe*

This paper explores the challenges and the possible impact of climate change and associated risks in South-Eastern Europe. Climate and climate-related hazards are growing threats for our cities as a result of the twin challenges derived from warming climate and urban expansion. On the one hand, the temperature of urban areas is generally higher than the rural neighbourhood, thus generating the urban heat island effect, which may exert a considerable pressure on human health. The impacts of heavy rains and severe storms are also exacerbated over built-up areas. On the other hand, the heterogeneity of the cities in terms of physical morphology, structure and composition is nowadays combined with increasing population and accumulation of assets that are more valuable than ever in the history. The cities in South-Eastern Europe are particularly at risk due to the climate changes expected in the next decades.

**Sorin Cheval** is a climatologist with expertise in urban climate and climate change. He is the Director for Applied Meteorology at the National Meteorological Administration, in Bucharest, Romania. Prof. Cheval has a long record of papers in outstanding scientific publications. He is a Fulbright alumnus and holds a Ph.D. in Geography since 2005. Prof. Cheval teaches various courses of meteorology at the “Henri Coandă” Air Force Academy in Braşov, Romania. He also teaches Master’s courses at the University of Bucharest. Since 2017, Prof. Cheval is the President of the Romanian Association of Applied Meteorology and Education.