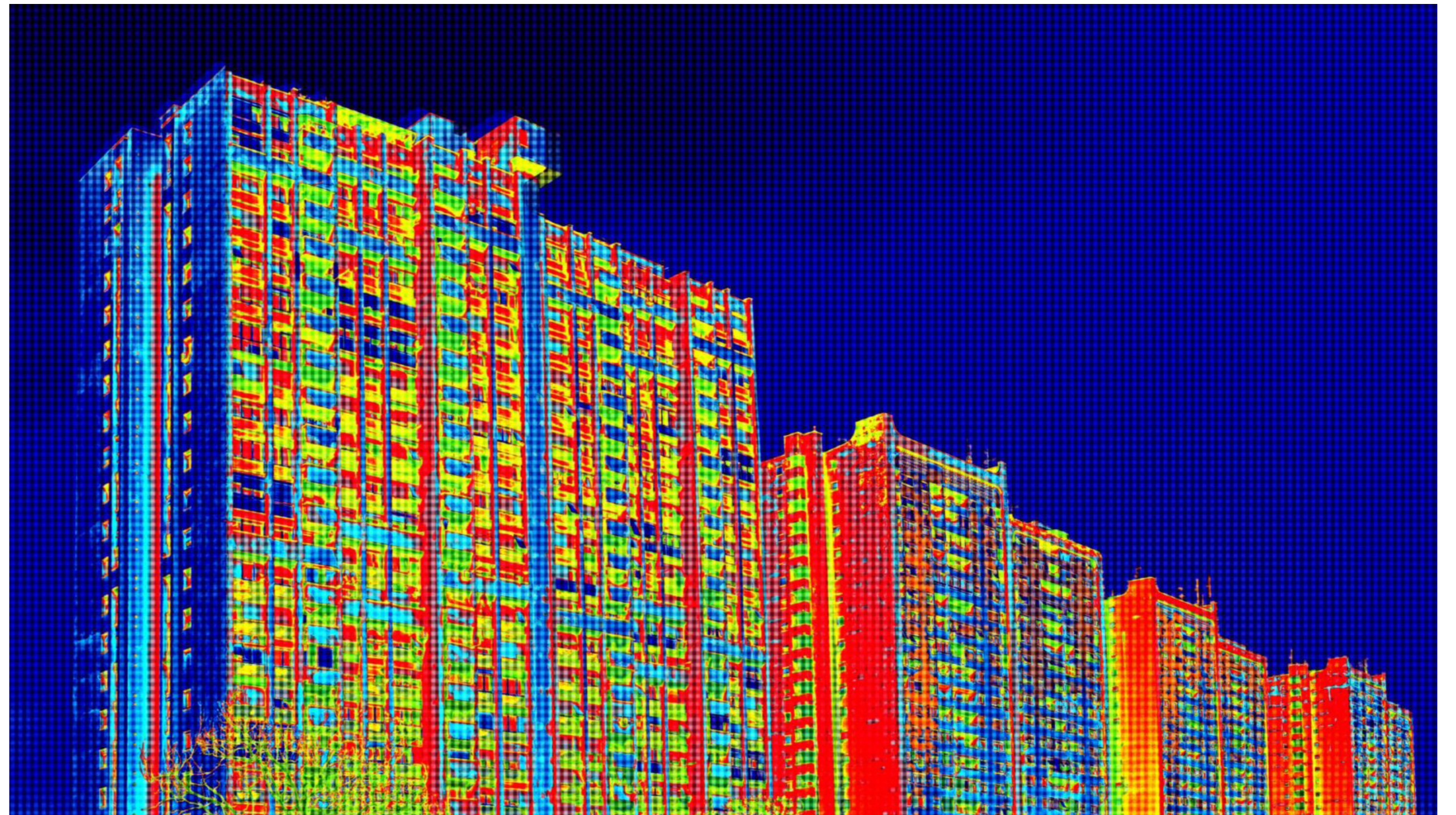


Climate Change and Thermal Behavior of Buildings in Switzerland



The temperature of Earth is maintained by the balance between absorbed solar energy and radiation that departs Earth. Solar energy drove the Earth's climatic system's support. Rapid technological advancement in the 19th century caused fossil fuel usage to escalate, resulting in greenhouse gas emissions. In contrast, excreta pollutants damage the global solar imbalance, which is compatible with accelerated climate change.

The objective of the research is to evaluate and quantify climatic fluctuations and their impact on an ordinary Swiss house with different climate systems in several places. Computerized simulation programs as WUFI enable the examination to forecast thermal energy and heat behavior study in an interior environment.

Future climatic data is justified on the United Nations Intergovernmental Panel on Climate Change, which suggests various alter-

natives on CO₂ concentration, which linearly relates to temperature rises.

This research aims to simulate and measure the effect of climate change with several scenarios comparing the many extreme heat regime options, analyzing their merits, and formulating potential strategies.

Warmer weather will inevitably have a negative impact on indoor comfort. Passive options such as nighttime ventilation, green roofs, improved solar protection, and façade painting are considered part of the answer to prevent artificial cooling.

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Semester:
FS21