

Open call for PhD candidates

AAU-CRENAU Laboratory (CNRS/ENSA Nantes/Centrale Nantes)

Interdisciplinary methods for studying the thermal experience of city dwellers in urban design projects

Positioning of the thesis project

This thesis project falls within the context of adapting cities to climate change, particularly in terms of their resilience in the face of rising temperatures. Its aim is to contribute to the development of tools and methods for better characterizing the climatic experience of city dwellers and taking this experience into account in urban development projects. This approach requires the adoption of a new scale for analysing the urban climate, that of the human body in public space, integrated with the neighbourhood and city scales already explored by microclimatology. The complexity of climatic phenomena at this scale, their relative invisibility and the lack of a suitable vocabulary, call for the development of interdisciplinary methodological approaches to enrich the laboratory's current research.

The main aim of the thesis will be to design and implement interdisciplinary methodological approaches that combine qualitative methods with the physical methods already in use, in particular mobile climate measurements. There are two main lines of enquiry:

1. To analyse the qualitative description of the thermal environments experienced by city dwellers, using a field survey approach that pays close attention to the modes of expression that complement the physical characterization carried out by measuring instruments;
2. To study the ways in which those involved in urban development projects interact on thermal and climatic issues, focusing on the growing role of quantitative information produced by observation and simulation techniques.

Thesis context

This thesis project is part of the work of the Climates research group of the AAU-Crenau laboratory. Through its various dimensions, the Climates research group enables the confrontation of knowledge relating to urban climates and climatic experiences of the built environment in an interdisciplinary perspective mobilizing theories of architecture and ambiances, the physics of climates and information sciences, environmental psychology, urban ethnography and the history of sensitivities.

The thesis project will contribute to the research carried out by the group's researchers into the description and analysis of ordinary climatic experience through the development of mobile measurements instruments and qualitative methods for the study of feelings. This work also aims to put the methodological approach to the test of the practices of operational players in urban planning and architecture.

The thesis will be directed by Daniel SIRET, a researcher at the French Ministry of Culture who holds an HDR. It will be co-supervised by Ignacio REQUENA-RUIZ, lecturer at ENSA Nantes.

Expected profile

- Degree in architecture, engineering, urban planning or geography.
- Interest in multidisciplinary approaches. Familiarity with the theories and methods of urban microclimatology and qualitative research methods is desirable.
- Ability to work in French to carry out on-site surveys.

Working conditions

The doctoral student will be based in the AAU-Crenau team at ENSA Nantes on the Ile de Nantes.

He or she will receive remuneration in accordance with the regulations governing doctoral contracts.

He or she will benefit from the laboratory's technical support (hardware and software) in mobile climate measurements.

Application process

Candidates interested in this thesis project are invited to submit their application on the recruitment platform before 15 April 2024, via the following link: <https://theses.doctorat-bretagne-ouest.fr/sis/campagne-2024>

The application must include:

- An up-to-date CV,
- A letter of application explaining the candidate's motivation for the thesis and his/her position in relation to the research project,
- Transcripts of marks from the master's degree or equivalent diploma.

Contact and questions

Candidates can send their questions by email to: daniel.siret@crenau.archi.fr and ignacio.requena@crenau.archi.fr.

About the AAU-Crenau team at ENSA Nantes

Crenau (<https://aau.archi.fr/crenau/>) is the Nantes team of the AAU joint research unit (CNRS, ENSA Nantes, ENSA Grenoble, Centrale Nantes, UGA) based at the Ecole Nationale Supérieure d'Architecture de Nantes (<https://www.nantes.archi.fr>). Its research is multidisciplinary (from the social sciences to the engineering and design sciences) and covers a wide range of topics relating to architectural and urban environments, the adaptation of cities to climate change, models, instruments and policies for territorial public action, virtual and augmented reality, and so on.

The doctoral student recruited will be enrolled in the SIS (Engineering and Systems Sciences) doctoral school, one of the two doctoral schools for which CRENAU is the host laboratory.