

General information

Research associate - Construction and analysis of harmonized geohistorical databases on urban land use in Europe M/F

Reference: UMR6266-FRALUC-002

Institute: UMR CNRS 6266 IDEES
Location : UNIVERSITY ROUEN NORMANDIE, MONT ST AIGNAN (FRANCE)

Type of contrat: Temporary

Period: from January, 10th 2022 to September 30th, 2023 30 septembre 2023

Job status: Full time

Hours per week: 35

Gross salary: from 2462 € according to experience

Application deadline: Novembre, 30th 2021

Missions

The position is part of the research project SUCHIES - Structures Urbaines Comparées à travers l'Histoire et les Echelles (Comparative Urban Structures through History and Scales) led by Rémi Lemoy (UMR 6266 IDEES Rouen) and Marion Le Texier (Laboratoire de Géographie et d'Aménagement de Montpellier). Two main missions will be assigned to the recruited person: to participate in the construction of a harmonized geohistorical database to analyze the recent structures and evolutions of urban land use in Europe (in partnership with the research group Quadrees.lu and Geoffrey Caruso) and to develop a proof of concept approach for the automated identification of land uses around urban cores from old topographic maps (in partnership with the research group GeoHistoricalData).

Activities

The person recruited will accompany the two teacher-researchers in charge of the project in the implementation of the following tasks:

Task 1: to identify, collect and qualify data describing the land use and population of major European cities in a comparative way over time

Task 2: vectorize historical land use information of a sample of cities from historical topographic maps (Cassini, Etat-Major, Ordnance Survey...)

Task 3: to build an ontology to qualify and cross-reference the geographic information contained in the different databases

Task 4: to develop, evaluate and improve the methodology of automatic interpretation of these old maps for the identification of land uses

Task 5: calculation of radial (center-periphery) land use profiles of the studied cities at different dates and determination of the mathematical form of the obtained profiles

The collective writing of at least two scientific papers (in English) is expected. Presentations at working meetings with the scientific partners of the project and at specialized conferences are also planned throughout the project.

Skills and competences

The candidate, who holds a PhD in geography, computer science, physics, mathematics, economics or history, should be interested in the field of urban modeling. The candidate will be required to mobilize skills in geographic information science, statistical processing, spatial analysis, and cartographic visualization. Experience in interdisciplinary work will be appreciated. Knowledge of GIS software and programming languages is desirable (R, QGIS, or Python). Good oral and written English language skills are expected.

Contact

Applicants are invited to send their resume and cover letter to remi.lemoy@univ-rouen.fr and marion.le-texier@univ-monpt3.fr by November 30, 2021. An oral interview will be held in December. It will be held by videoconference.