GIS Day 2026

HANDS-ON WORKSHOP

FROM GIS TO AN ETHICAL UNDERSTANDING OF TERRITORY

16 NOVEMBER 9:00 a.m.–3:00 p.m.

Study area: **Al Harrach, Algiers**



WITH:

MR. ALI BOUCHERIT

CARTA – USTHB

Scientific Committee

Dr. Baya Belmessaoud – Boukhalfa
Dr. Soraya Kentache
Miss. Dalia Lakari

Organizing Committee

Mr. Yazid Belkouche
Dr. Imed Eddine Khelfa

Ecole Polytechnique d'Architecture et d'Urbanisme, Route de Beaulieu, El-Harrach BPN° 177, 16200 Algiers. Algeria

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From Spatial Analysis to Territorial Ethics: Mapping Equity in Al-Harrach

1. Workshop Overview

Held in celebration of GIS Day, a global initiative led by Esri, this hands-on workshop unites four academic studios across three years of study — fostering an interdisciplinary approach to spatial analysis and territorial understanding.

Geographic Information Systems offer powerful tools for reading urban territories through maps, satellite imagery, and georeferenced data.

Taking Al-Harrach, Algiers, as a case study, this six-hour workshop guides students through the core stages of spatial analysis: georeferencing historical maps, tracing urban change over time, measuring land-use transformations, assessing proximity to public facilities, and producing thematic maps.

Rather than surveying the full scope of ArcGIS, the workshop centres on a practical, reproducible workflow from data preparation to spatial interpretation. Beyond technique, the workshop poses a straightforward ethical question: Do all neighbourhoods have equitable access to public facilities and green spaces? This thread of inquiry sets the stage for a future event dedicated to environmental ethics, spatial equity, and solidarity.

2. Aims and Participants

Audience: students, early-career researchers, urban planning professionals and GIS beginners.

Prerequisites: basic map-reading skills; no advanced ArcGIS knowledge required.

Participating Students: 3rd year group 11 (Dr. Khelfa); 4th year (Dr. S. Kentache and S. Doghmane)

4. Expected Outcome:

One group-produced map sheet showing urban change, a few simple indicators and proximity to facilities.

5. Essential Preparation

Before the workshop: install and test ArcGIS 10.8; provide a preconfigured project; supply maps and harmonized layers; prepare control points, facility locations, base maps and a layout template.

Plan for groups of three or four.

6. An ethical question to take forward

"Do all neighbourhoods of El Harrach have similar opportunities to access public facilities and green spaces?"



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Harrach

DAILY PROGRAMME

Time		Session	Beginner-friendly ...	Responsible
9:00–9:20	1	**Welcome & Introduction** *Presentation of the study area, research question and PDAU.*		Opening: Prof. M. Messaoudene & Prof. Boussoualim (EPAU) Presentation: Dr. B. Belmessaoud GIS Presentation: Mr. Boucherit
9:20–10:20	2	**1. Georeferencing** *Georeference historical maps and align spatial data.*		GIS Coaches: Mr. Boucherit · Prof. A. Boussoualim · Dr. B. Bakour · Mme N. Akrour
10:20–11:30	3	**2. Comparing Maps** *Identify changes in the distribution of green spaces and solidarity facilities.*		GIS Coaches
11:30–11:45		Coffee Break		
11:45–12:30	4	**3. Measuring** *Calculate green-space areas and distribution indicators.*		GIS Coaches
12:30–13:00		Lunch Break		
13:00–14:00	5	**4. Proximity Analysis** *Assess accessibility and identify underserved neighbourhoods.*		Guest: Ali Boucherit (CARTA-USTHB) GIS + Coaches—territorial/environmental perspective
14:00–14:45	6	**5. Mapping Spatial Inequalities** *Produce comparative maps of spatial distribution and accessibility.*		GIS Coaches (mapping & presentation support).
14:45–15:00	7	**Presentations & Next Steps** *One finding, one limitation and one ethical question per group.*		Synthesis: Dr. B. Belmessaoud & Prof. Boussoualim (EPAU)

Our Team

- Dr. B. Belmessaoud- Boukhalfa
- Prof. A. Boussoualim
- Guest: Mr. A. Boucherit
- GIS coaches: Mr. Boucherit; Dr. B. Bakour; Mme N. Akrour; Prof. A. Boussoualim

Expected Outputs

- ✓ Georeferenced maps
- ✓ Urban change analysis
- ✓ Land-use measurements
- ✓ Accessibility maps
- ✓ Reflection on territorial equity

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Al-Idrīsī (1100–1165), renowned 12th-century geographer and cartographer, considered one of the great pioneers of scientific cartography (Encyclopædia Britannica, 2026 ; Sarton,1931)

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