



**POSTGRADUATE TRAINING OFFER
LEDGING TOWARDS A DOCTORATE
FOR THE 2024/2025 ACADEMIC YEAR**

The quality of the Higher Education Institution:

"Focal Point" Institution ☐

"Partner" Institution ☒

Doctoral Training Project by Sector

Establishment	Domain	Sector (s)
University of Chlef	Sciences and technology	Public Works

Supporting structures for the doctoral training project

<input checked="" type="checkbox"/>Research Laboratory Code(s):-.....LAVE.....
<input type="checkbox"/>	Other (Research center or research unit):-.....

Type of Doctoral School

Type	
<input checked="" type="checkbox"/>	Regional doctoral school
<input type="checkbox"/>	National doctoral school

Head of the CFD Doctoral Training Committee

DR. Bouteraa Zohra

1- Domiciliation of doctoral training:

Establishment	Faculty / Institute	Department
University Hassiba Benbouali of Chlef (UHBC)	Faculty of civil engineering and architecture	Civil engineering

1- Head of the CFD doctoral training committee:

First and last name: Bouteraa Zohra

Grade : MCA

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Attach a brief CV as an appendix to the training offer (according to the attached template).

2- Review of current doctoral training in the sector

Are there any doctoral training courses currently underway? **YES** ☒ **NO** ☐

If yes, please complete the following table:

Year of accreditation	Total number of registered students	Number of doctoral students who defended	Number of doctoral students who did not defend
2018	3	1	2
2022	3	3	0

Objectives assigned to doctoral training:

✓ The objectives of this doctoral training:

This doctoral program has two main objectives for the training of doctoral students.

- The first objective is to enable doctoral students to address the issue of seismic vulnerability assessment in the field of public works. It includes civil engineering structures and the road network, with the aim of developing a rational strategy for seismic risk management in Algeria, based on scientific research and a methodical and rigorous process essential to innovation and progress.

- The second objective is to increase the performance of road materials by opting for innovative waste as a substitute for industrial waste in order to reduce earthquake vulnerability, which is a major component of the overall risk reduction strategy, as well as for waste recovery, protection of natural resources, and preservation of human lives by adopting sustainable development approaches.

Among the multiple objectives of this doctoral project:

- The field of artificial intelligence (AI) has experienced rapid growth. Indeed, AI has established itself as an essential technology in virtually every area of life. It will therefore be used to improve the performance of road infrastructure against seismic risk and to recover construction waste;

- The transition from training to the world of work is essential for the doctoral students in this proposed project; therefore, a bridge will be structured between the university and the socio-economic world;

- Promote innovative research that has an impact on sustainable development and, above all, create opportunities for corporate partnerships, which could involve public companies or other socio-economic actors in the public works sector, to foster closer ties between the university and the industrial market; - Take into consideration the essential goal of this project which is the training of a generation of doctoral leaders committed to social and environmental responsibility for a sustainable economy, thus opening up valuable opportunities for their training and development by opening the university to the outside world.

- Knowledge building training program:

Activities	Semester 1	Semester 2
Specialty reinforcement courses related to doctoral training	<ul style="list-style-type: none"> • Dynamics of civil engineering structures 12 hours • Recycling of road surfaces 12 hours • Introduction to artificial intelligence and its applications in the field of public works 12 hours 	<ul style="list-style-type: none"> • Seismic Vulnerability of Civil Engineering Structures 12 hours • Numerical Modeling 12 hours • Reinforcement of Earthworks 12 hours • Innovative Materials 12 hours
Research methodology courses	Scientific research tools 12 h	Scientific research methodology 12 hours