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| **Identity card of the specialty**: Materials in Civil Engineering |

**Level:**Academic Masters

**Domain:**Science and Technology

**Sector:**Civil Engineering

**Speciality:**Materials in Civil Engineering

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| **1- Location of the training:** |

**Faculty**:TECHNOLOGY.

**Department**: Civil and Hydraulic Engineering

References of the enabling order: Order No. 1201 of08/09/2016

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| **2- External partners:** |

**Companies and other socio-economic partners**: Direction of water resources of the wilaya of Béchar, company "Saoura-Ciment Béchar, public works laboratory Béchar unit, intensive language teaching center CEIL, SONATRACH, the Algerian water company ADE, Brenco Engineering & Consulting Services EURL

**International partners**: IMT Atlantique Bretagne-pays de la Loire,

**Other partner establishments**: DGRSDT, University of Oran University 2 Mohamed benhmed, University of science and technology of Oran Mohamed Boudiaf, University constontine3, University sahli Ahmed of Naama, National Polytechnic School of Oran Maurice Audin, University Mohamed khider-Biskra , Abou Bakre Belkaid Tlemcen University, Djilali Liabes University of SIDI-BEL-ABBES, Belhadj Bouchaib University of Ain-Temouchent

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| **3- General organization of the training: position of the project** |

Common foundation of the domain

**Common foundation of the domain:**

**Science and Technology**

**Sector: Civil Engineering**

**Sector: Civil Engineering**

*Other Specialties approved in the sector group in your establishment***: Structure, geotechnics**

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**Speciality:**

**-Material in civil engineering**

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| **4- Context of the training:** |

Knowledge of construction materials allows the civil engineer to choose the material best suited to the work given the service conditions of the structure.

It is a question, in this training, of responding to the growing needs in terms of development in various sectors (buildings, public works and civil engineering) and to the concern for quality control.

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| **5- Objectives of the training:** |

This training is part of the gigantic efforts undertaken by the government in terms of general policy to promote the construction and housing sector.

The course curriculum aims to:

- Provide the necessary experimental and theoretical knowledge on the one hand, to imagine and design innovative materials that meet precise specifications, and on the other hand, to improve the performance of existing materials and predict their lifespan,

-Establish the link between production, synthesis and shaping processes, (micro)structure and structural and/or functional properties.

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| **6- Profiles and skills targeted:** |

This training aims to train managers for the building sector, in general, capable of working in favor of the diversification and enhancement of local materials, within the framework of a perspective of sustainable development. The areas covered are essential areas of industry, constantly having to respond to new challenges, in particular environmental ones (lightening of structural materials, development of new materials for the production and conversion and storage of energy, packaging and recycling, etc. This specialty aims, therefore, to provide the methodological and scientific tools that will allow graduate students to participate in research and innovation in these fields of application.

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| **7- Local, regional and national employability potential:** |

Research laboratories,

– Laboratories of buildings and public works,

– Cement works, brickworks, agglomerate production units,

- Design offices.