Research Grants for PhD students from the China Scholarship Council			
Information Form (please read the guidelines carefully on the website www-csc.utt.fr)			
Supervisor's name :       DAOUADJI       Given names :       Ali			
Status (prof., assistant prof.,): Professor			
Laboratory :	Civil and Environmen	tal Engineering - Soils-	Website address :
Institution ·	Institut National de la	Recherche Appliquée (INSA)	Website address :
Scientific comp	Lyon www.insa-lyon.fr		www.insa-lyon.fr
Civil engineering, Geomechanics, Soil stability, Consitutive modeling, Design of experiments, granular materials, Mortar and Concrete			
Two major publications in the field proposed for the PhD :			
<ol> <li>A Daouadji, PY Hicher, A Rahma (2001) An elastoplastic model for granular materials taking into account grain breakage, European Journal of Mechanics-A/Solids 20 (1), 113-137</li> </ol>			
<ol> <li>A Daouadji, F Darve, et al., (2011) Diffuse failure in geomaterials: Experiments, theory and modelling, International Journal for Numerical and Analytical Methods in Geomechanics, 35(16), 1731-1773</li> </ol>			
Website address of the personal page :			
Superv Description of	visor's email : f the research work	ali.daouadji@insa-iyon.fr	Topic # (see list) : IV-12
Title :			
Subject :			
The objective of this project is the development of adequate design method of green concrete, which includes selected by- products. The effort will be made on the optimization of the compactness of the granular skeleton and to study instabilities and failure that may occur. An extensive characterization of targeted by-products, in the context of concrete production, will be carried out. From the observed results, specific design methods will be proposed in order to optimize the use of by-products and make the green concrete cost effective. The durability of the designed concretes will be assessed throughout the measurement of few indicators.			
Concrete, granular materials, recycling, by-products, durability			
Expected collaborations :			
Prof. R. ZENTAR from Ecole des Mines de Douai (France)			
Background required from the applicant :			
Civil engineering, concrete, granular materials			
Existence of a PDF file detailing the proposal ("yes" or "no") : yes (see guidelines on the website www-csc.utt.fr)			