ANNEX A

PUBLIC SELECTION BASED ON QUALIFICATIONS AND INTERVIEW FOR THE AWARDING OF NO. 1 GRANTS LASTING 12 MONTHS FOR CONDUCTING RESEARCH IN ACCORDANCE WITH ART. 22 OF LAW OF 30.12.2010 NO. 240 AT THE DEPARTMENT OF MANAGEMENT, INFORMATION AND PRODUCTION ENGINEERING OF THE UNIVERSITY OF BERGAMO (ACADEMIC RECRUITMENT FIELD 09/A3 – INDUSTRIAL DESIGN, MACHINE CONSTRUCTION AND METALLURGY - ACADEMIC DISCIPLINE ING-IND/15 – DESIGN METHODS FOR INDUSTRIAL ENGINEERING

announced with decree of the Rector Rep. no. 559/2016 of 28.10.2016 and posted on the official registry of the University on 28.10.2016

RESEARCH PROJECT

"*Patent search based on multilevel design ontologies*"

The research program is aimed at deepening an innovative design method which involves the decomposition and modeling of a product by functional description at multiple levels of detail, from macro to micro. First and foremost we want to study the effects that this approach can have on the use of modeling tools such as structural optimizers and on the other to create an ontological framework that allows us to create specific targets that can be used to search for knowledge. In particular we will test unprecedented integration with semantic tools used in patent research in support of the inventive problem solving developed by the spin off of the University of Bergamo.
Specifically, the following activities are planned:

- Analysis and experimentation in industrial cases of multi-level design techniques,
- Development of a formal ontology on entities that characterize the multi-level design.
- Testing of algorithms for semantic search in patent law, based on these ontologies.