ANNEX A

PUBLIC SELECTION BASED ON QUALIFICATIONS AND INTERVIEW FOR THE AWARDING OF NO. 1 EARLY STAGE GRANT LASTING 12 MONTHS FOR CONDUCTING RESEARCH PURSUANT TO ART. 22 OF LAW NO. 240/2010 AT THE DEPARTMENT OF ENGINEERING AND APPLIED SCIENCES (SC 08/B3 – STRUCTURAL ENGINEERING - SSD ICAR/09 – STRUCTURAL ENGINEERING) TYPE B
PICA CODE: 20AR007

announced with decree of the Chancellor Rep. no. 75/2020 of 10.02.2020 and posted on the official registry of the University on 18.02.2020

RESEARCH PROJECT

"Definition of simplified methodologies for the seismic risk assessment of industrial buildings"

Research structure: Department of Engineering and applied sciences
Duration of the grant: 12 months
Scientific Area: 08 – Civil engineering and architecture
Academic recruitment field: 08/B3 – Structural engineering
Academic discipline: ICAR/09 – Structural engineering
Scientific Director: Prof. Giovanna Barigozzi

The project involves the evaluation of simplified methodologies for the estimation of seismic risk (economic losses, downtime …) of industrial precast RC structures typical of the Italian building heritage. The project first envisages an assessment of the structural and non-structural vulnerabilities, including typical industrial systems, of these buildings and then the definition of simplified calculation methods and models with reduced computational effort compared to the building modeled completely. Loss assessment considering the presence of expensive machinery and loss assessment following retrofit interventions. A validation will then follow starting from the analysis of literature data on past earthquakes and using rigorous calculation methodologies such as PEER-PBEE.