RESEARCH PROJECT

(TESI DI LAURA MAGISTRALE – INGEGNERIA GESTIONALE)

A **research project jointly organised** and orchestrated by the University of Brighton (UK) and the Universita' degli Studi di L'Aquila (Italy) has recently become available and is currently **accepting applications** and expressions of interest. The research is expected to last from a **minimum of 3 months** to a **maximum of 6 months** depending on the successful candidate's skills and availability.

The project aims at studying, analysing and establishing monetary figures with respect to the life cycle of glazed Double Skin Façades (DSFs) which are a passive/low-energy architectural technology chiefly used in medium-to-high-rise non-domestic buildings. In doing so, a **Life Cycle Costing Analysis (LCCA)** needs to be undertaken to determine the most cost-effective alternative amongst different DSF configurations.

Bills of quantity and data inputs (e.g. materials, maintenance cycles, energy figures, etc.) have already been established in earlier stages of the research and will be made available to the successful candidate who will have the **primary role** of **translating** those **inputs into monetary figures** in the Italian context **prior to** executing **the LCCA**.

The successful candidate will have a **sound basis** in all topics related to the wider area of **engineering management**, a **robust knowledge of the English** language, and will also be inclined to **independent studying and learning**. In addition to the final dissertation, the **project is expected to deliver** research findings of excellent quality which will suit the **publication in an international journal** within the engineering/buildings/managerial disciplines, for which the successful candidate will be invited to act as one of the authors.

The selected candidate can expect to **develop** the following **capital learning outcomes**:

- Develop the capability to master the LCCA technique which is steadily gaining momentum in both academics and practitioners communities;
- Understand the fundamental concepts underlying Life Cycle Assessment (LCA) analysis, which are more and more required by industries and research establishments alike;
- Understand how to execute a grounded research project and develop a strong research methodology;
- Increase the fluency in both spoken and written English.

Perspective candidates are invited to **submit** their **expression of interest** in the **form** of:

1. the Curriculum Vitae (no longer than one two-sided A4 page);
2. a cover letter (no longer than one single-sided A4 page) in which they state their understanding of the research project and propose a draft of the methodological approach.

Both documents **must be** in English and can be submitted **no later than 29th March 2015** to either Ing. Francesco Pomponi (F.Pomponi@Brighton.ac.uk) or Prof. Dr. Luciano Fratocchi (Luciano.Fratocchi@Univaq.it).

Applications are **warmly encouraged by** those **candidates who** aim to undertake an **academic** career, a **research** career in non-academic institutions or **private industries**, or a career with an **international** profile.

Preliminary Key Readings (PDFs of the following references will be made available upon request – please email F.Pomponi@Brighton.ac.uk):

Cakmanus, I. (2007). *Optimization of Double Skin Facades for Buildings: An Office Building Example In Ankara-Turkey.* Paper presented at the Proceedings of Clima 2007 WellBeing Indoors, Helsinki, June 10-14.

Aye, L., Bamford, N., Charters, B., & Robinson, J. (2000). Environmentally sustainable development: a life-cycle costing approach for a commercial office building in Melbourne, Australia. *Construction Management and Economics, 18*(8), 927-934. doi: 10.1080/014461900446885

Bierer, A., Götze, U., Meynerts, L., & Sygulla, R. (2014). Integrating life cycle costing and life cycle assessment using extended material flow cost accounting. *Journal of Cleaner Production*(0). doi: http://dx.doi.org/10.1016/j.jclepro.2014.08.036