

Graduate Student Research Abstract – Construction Practice (Non-Pedagogical Content)

# **Recommendations for Architects to Achieve Low Impact Buildings (LIB) in UK**

**Abiola Baba**

University of the West England  
Bristol, United Kingdom

The purpose of the paper is to report research conducted to explore the stage of the design process that architects make and the major decision to achieve low impact design. This is towards recommendation of decision support tools requirements by architects for United Kingdom (UK) to achieve the design. To explore the stage(s) of the design process to achieve the low impact buildings (LIB) in UK, a mixed method approach comprising of interviews with architects in practice and academia were combined with questionnaires to sustainable architectural practices in UK. This is necessary to identify the gaps in the current use of Building Performance Energy Simulation (BPES) tools as design-decision support for architects, towards recommending the requirements of new generation architects' friendly tools for the early and detail stages of the design process, to aid the deliverance of sustainable housing design in the UK. The results indicate a limited number of architects use BPES tools; until the later stage of the design process. However, most UK architects (57.9%) make the major design decisions at the conceptual stage of the design process, by which the existing decision support tools, for architects is very poor at this stage. Thus, there is the need to focus on tool development for architects' decision-making process, especially at the conceptual stage; where major decisions are taken. Finally,, architects' friendly tools, fit for their design-decision making at various stages of the design process are recommended in this study. This is because architectural design decisions vary significantly in terms of accuracy, flexibility, and the level of detail. Hence, the study recommends that: at the early stages of the process, where relatively minimal information is available, flexibility and approximation in BPES tools is more approximate to support design decisions. Nevertheless, as the design develops, and more information becomes available, precision and higher levels of detail in BPES tools are required.

**Key Words:** Architects, BPES tools, Decision Making, Decision Making, Low Impact Buildings (LIB)