

International Conference on Sustainability in Energy and Buildings

Invited Sessions

4-5th July, Budapest, Hungary

<http://seb-19.kesinternational.org/sessions.php>:

Title of Session:

Utilisation of marginal natural, industrial and agricultural waste and by-product materials in building and construction

Description:

Socio-economic development in a country often results in increased infrastructure and building needs. This need in most cases results in increased demand for traditional building and construction materials, such as steel and Portland cement. The manufacture of these materials consumes enormous raw materials resources, and the manufacturing processes involved are associated with high energy consumption, ugly excavations, especially when left without attention to landscaping, and most negatively exacerbate atmospheric pollution. Portland cement forms the main binder material in concrete, and represents the costliest constituent in concrete and masonry. Therefore, the environmental and economic impact of Portland cement is huge. It is responsible for nearly 10% of the global human derived carbon dioxide emissions. For these reasons, the possibility of replacing, or minimising usage, of the traditional building and construction materials with low-cost greener materials from nature, industry or agriculture will yield significant benefits. Numerous researches have been undertaken on different waste materials. The research so undertaken has only scratched the surface and more coverage is required. Most of the major waste and by-product streams have been explored, while most of the marginal and waste materials and/or their combinations have remained relatively untapped. This conference session would particularly be interested, and would ideally like to address, the question of how the less abundant (marginal) wastes from nature, industry or from agricultural source can be utilised. Due to their less abundant nature, it may be necessary to combine, where logistically possible, two or more marginal/waste streams. This conference session would like to explore ongoing and planned research in these areas. Examples include, but not limited to, singular or combined utilisation of marginal/wastes such as from marble/tiles/ceramics, quarries, other industries, forests and/or other agriculture, to formulate novel, low-cost/low-carbon greener building and/or construction materials.

Submission of papers for review:

Complete papers: 19th March 2019

Notification of acceptance of final papers: 5th April 2019

Upload of final camera-ready papers & Final conference registration: 5th June 2019

Email and contact details:

- Professor John Kinuthia, University of South Wales, School of Engineering, Trefforest Campus, Pontypridd, UK.
Email: john.kinuthia@southwales.ac.uk