

# International Conference and Exhibition on **Satellite**

August 17-19, 2015 Houston, USA

## **Enhancing LEED as a sustainable rating system by applying its regional priority for all environmental regions**

**Wael Ahmed Abonema**  
Helwan University, Egypt

Sustainable design nowadays is not an option for the construction industry all over the world; it becomes a mandatory because of environmental requirements. Big countries all over the world have started in last decade of the twentieth century to create sustainable rating systems based on their environmental needs. The three pillars of sustainability which is environment, people and economy composite certain categories for each rating system. Those rating systems categories cover the project site, water consumption, Energy efficiency, planet atmosphere, construction regional material, and indoor quality. LEED as a rating system for sustainable design has started to be applied not just in the US but also in many countries in the Middle East and Egypt. LEED as sustainable rating system has a rigid category weights. The impact of this rigidity leads to impractical situation, which is every part of the world, suffers from certain lack of resources by the same amount, and it is not true. Countries are not the same in everything. For example in the Middle East, they have big area of desert and suffer from lack of potable water resources, but they have plenty of energy resources. Country like Japan lives on the opposite side. It means that each part of the world should have different category weights. That is the reason of creating many rating systems, but regional priority as a category can make the balance for LEED to can modify all weights based on the region.

### **Biography**

Wael Ahmed Abonema completed his PhD in 2009 from Polytechnic of Athens and Helwan University and Master Studies from Helwan University, Faculty of Fine Arts and Architecture department. He is the Design Director of Engineering Consultant Group. He has published more than 11 papers in reputed international conferences and journals. All his researches focused on sustainable design and enhancing architectural design tool using the artificial intelligence. In 2013, he got his Master of Business Administration (MBA) from International school of Scandinavia, Denmark. He has a European consultancy and membership in Technical Chamber of Greece (TEE).

[wael.abonema@gmail.com](mailto:wael.abonema@gmail.com)

### **Notes:**