

**National Council for Science and Technology: 3<sup>rd</sup> National Conference on Dissemination of Research Results and Exhibition of Innovations, held from 3<sup>rd</sup> – 7<sup>th</sup> May, 2010 at Kenyatta International Conference Centre, Nairobi. Theme of Conference is “Harnessing Science, Technology and Innovation for National Development” and a Sub-theme with an emphasis on value addition, emerging technologies and ICT in the area chosen of “Energy”.**

Title of Paper: **“Design and Development of ‘Temperature Template©’ for Bioclimatic Analysis in Tropical Countries”.** 7<sup>th</sup> May 2010.

By Yusuf H. Ebrahim<sup>1</sup>.

### **ABSTRACT:**

Digital tools that are imported from sophisticated industrial and temperate countries into a tropical environment tend to be inappropriate and unsustainable in line with national visions<sup>2</sup>, international standards and millennium goals. The paper presents a tool developed by Ebenergy Enterprises for the local market as an intermediary and linked to a broader software ‘Ebenergy© 2010’ which can be interfaced to other conventional ones such as Geographical Information Systems (GIS) and Computer Aided Design (CAD). These can be used for design and planning projects using data from the local meteorological stations.

### **KEY WORDS:**

*Software Development, Design Aids, Research Tool and Information Technology.*

### **BACKGROUND INFORMATION:**

In the mid nineties two brothers, Victor and Aladar Olgyay<sup>3</sup> revolutionized the research world by proposing a change in the general mindset when dealing with the thermal environment by the introduction of their concept of ‘*Bioclimatic Analysis*’ and what they called ‘*Mature Architecture*’. Prior to this, the first concept was dealt with in the usual way of analysis by breaking down of the thermal sensation or comfort into its constituent parts and dealing with or setting standards for the individual components.

---

<sup>1</sup> Yusuf Ebrahim is a lecturer in the Department of Architecture and Building Science (DA+BS), University of Nairobi and can be contacted at [ebrahim@uonb.ac.ke](mailto:ebrahim@uonb.ac.ke) (Mobile: 0722513617).

<sup>2</sup> Ref: Gakuru, Wahome Ph.D (30 Oct. 2006).

<sup>3</sup> Ref: Olgyay, Victor & Aladar (1963).