Application of Efficient & Renewable Energy Technologies in Low Cost Buildings and Construction

Seyhan FIRAT
Gazi University, Technology Faculty, Teknikokullar, ANKARA

Population increase and pace of progress has highlighted the urgent need for a proportionate increase in the number of housing units and industrial developments and the associated infrastructure. It is in response that RENEWBUILD2013 was organised. RENEWBUILD2013 brings together academics and industrialist from across the world to discuss and address the needs of the youth in terms sustainable buildings and infrastructure, focusing on low-cost, low-energy housing units, industrial buildings and incubators to serve the needs of the ever growing younger population. The papers invited aimed at addressing this need for sustainable infrastructure. It is hoped that extended versions of some of these papers will be published in a Special Issue of The World Scientific Journal (TSWJ).

Turkey sits geographically, culturally and technically at the centre of the world, straddling two continents Asia and Europe and neighbouring Africa. Turkey has seen huge strides in terms of economic and industrial development in the last few years. Thus, an international conference and exhibition located in Turkey on the themes encapsulated by RENEWBUILD2013 would be geographically central and neutral, offering an excellent opportunity for construction and industrial companies, government departments and policy makers to present and exhibit their sustainable products, systems and proposals. It offers a great opportunity to learn about and network on the latest trends in sustainability from a wide range of backgrounds, through the papers that were presented at the conference from the international academic and research community, including from the main Turkish universities, some presented in Turkish.

The range of topics for the invited papers is quite diverse, and even for a small conference, it was challenging to organize the conference parallel sessions along specific sub-themes from this wide range of topics. However, we managed to have general sub-themes, under which up to five papers could be presented in parallel sessions, two sessions in the morning and two sessions in the afternoon. The sub-themes in the parallel sessions range from innovative fibre materials to typical advances in mortar and concrete; from bricks and blocks to CO2 emissions and renewable energy; from sludge waste to technologies in oil and gas sectors to name a few, including papers presented in Turkish.

Each conference day starts with a common plenary for registration, key note speeches and/or notice updates. A pre-conference reception on the evening of Sunday 15th was found necessary for jet lag relief, acclimatization to Turkish hospitality, early conference gelling and familiarization. The first day of conference (Monday 16th) had the early start time of 8.00 a.m., to enable multiple activities of registration and various welcome and key note speeches. The day ended with light site visits at the environs of Gazi University, followed by a civil reception.

The second day adopted a similar style to the first day, albeit less initial presentations. Registration still took place for single-day or late delegates. The day ended with a conference banquet, deliberately designed to be held on the second day to ensure delegate familiarization during academic exchanges in the parallel session, site visits, registration and tea/coffee/lunch and other typical conference activities and delights. The third day followed the format of the second day at the beginning, but with an early close at about noon, to enable chairs’ closing address, lunch, good-byes late shopping and/or departure.

The Turkish cultural diversity and hospitality definitely offered a great opportunity to the conference delegates and accompanying family members for sampling Turkish cuisine and the various Turkish delights that Turkey is well known for.

Our first RENEWBUILD2013 concluded by all measures a success, we have had a very wide ranging papers presenting research work on material testing to system modelling, from use of sewage sludge to bio urbanism, from photovoltaic to fine element modelling of seismic sloshing in water tanks. The attendees were also of diverse backgrounds and nationalities and the Turkish hospitality was everywhere. Work started before the conference on identifying the best 10-12 papers for publication in a special issue of The World Scientific Journal (TSWJ), another 7 papers are to be published in the special editions of the Gazi Polytechnic Journal in Turkish. Such a high rate of journal publication is also another measure of success to be built on for the second RENEWBUILD Conference in 2015.
Our thanks go to all those who attended the first RENEWBUILD and all those who supported it, special thanks need to go to for organisation in particular, to South Wales University where the idea was born for the conference and who supported their staff to realise the dream and realise the idea. To Gazi University whose staff worked so tirelessly on making the dream a reality and who invested great deal of time and space to bring about our conference, and whose management not only supported the conference, but also hosted the visitors and delegates and provided very genuine welcome and great hospitality. To ZED events and tourism who organised the website and marketing of the event so professionally and who were a great friendly interface to the conference. And to Turkish Cement Manufacturers’ Association for their sponsor. We will meet again during the second RENEWBUILD2015 Conference.

My special thanks goes to Prof. John Kinuthia, Prof. Abid Abu-Tair, Prof. Jamal Khatib and Dr. Jonathan Oti for their exceptional efforts to make everything was on schedule.