

Editorial

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I welcome all readers to this new peer-reviewed journal *Intelligent Buildings International*. The journal was born with the thought of wishing to study and review knowledge which will impact the design and management of intelligent buildings now and in the future. Today intelligent buildings are part of an evolving history beginning thousands of years ago and marked by some ingenious examples of how people have moulded their buildings to local circumstances, which make a rich history of vernacular architecture all over the world. We now also see that the natural world of plants and animals can teach us a lot about the economical use of materials and energy.

Intelligent buildings should be sustainable, healthy, technologically aware, meet the needs of occupants and business and should be flexible and adaptable to deal with change. This means that design, construction and facilities management are all equally important. Buildings comprise many systems devised by many people and yet the relationship between buildings and people can only work satisfactorily if there is integration between all of the systems and the minds designing them. Systems thinking is essential in design and management, together with a range of talents that can create, innovate, yet remain practical and aim for ultimate simplicity. This requires not only technical ability but, beyond that, powers to interpret, spiced with imagination and even intuition. Buildings form our architectural landscape and they and the

environment that they generate should uplift the soul and spirits of those people within them, as well as those passing by. Buildings should feel good.

Changes in society and technology are shaping our future. Demographic changes, changes in population size and life expectancy, globalization, communications and global change are some of the major challenges and opportunities facing the world. Buildings are designed, constructed, managed or refurbished by people for people to work and live in. Dealing with old buildings and designing new ones is about providing a supply to meet a demand. Buildings create environments within them and these have several consequences. The consumption of materials, energy and water, emissions to the atmosphere and the production of waste mean that every consideration has to be given to their efficiency and effectiveness of operation. Equally important is the fact that there is a substantial body of evidence emerging, clearly showing that physical and spatial environments can affect people's mood and work performance and hence work output.

In the future, the important factors for the development of intelligent buildings will continue to be value for money; the ability to deal with sustainable issues regarding energy, water, waste and pollution; and the ability to deal with technological and sociological changes. Buildings need to be simple to operate in spite of the rapid growth in various innovative techniques and products if they are to be

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effective in use. We also need to develop our ability to properly integrate the building and its systems with the people working and living within the building. At the same time we need to keep abreast of innovative developments such as smart materials, nanotechnology, robotics, information and communication technologies, embedded sensor technology and a host of other developments which will affect the design of buildings. For example the third wave of nanodot technologies which will succeed the present silicon wafer technology will make the use of solar energy much more efficient and cheaper.

The journal will welcome research papers as well as detailed case studies for its content. From time to time we will invite distinguished people from many of the disciplines within architecture and engineering and also some outside them to write a visionary commentary. I hope that the journal will have something of value for not only designers and managers but also clients and developers. I would like to thank our distinguished Editorial Board from many countries around the world for their hard work and encouragement. I would welcome readers to contact me with their ideas on topics and any ways in which we can develop our thinking in respect of intelligent buildings.