



*As we move into the era of enviroefficiency, we tend to have to think less in terms of Rands saved, but perhaps more appropriately in terms of barrels of oil or tons of coal consumed. As the bulk of the energy we use is still derived from fossil fuels, each step in improving our efficiency reduces the net impact on our home planet.*

ELECTRICITY + CONTROL

E+C Spot On



# Discover the full potential of your building

By D Visser

*The development of innovative technologies greatly affects our daily lives and offers a wealth of new possibilities. This applies to existing buildings and those of the future. The trend is clear: Seamlessly integrated solutions that are exactly tailored to the building and requirements at hand ... that's 'intelligent'!*

New materials and the use of pioneering technologies for utilising renewable energy are significant innovations in construction and building technology. This is particularly true of the electrical installation; the heart of every building. This important area holds great potential for designing properties with considerably greater flexibility, security, economic efficiency and outstanding comfort. You can realise the full potential of your building with smart home and intelligent building control.

## What does 'smart home and intelligent building control' mean?

A single system instead of separate control solutions:

An intelligent building control system offers noticeable advantages over classic electrical installations. All the different functional sub-systems within the building are integrated via a bus connection to a single communicating system. This enables the optimal, energy efficient interaction of the sub-systems, which is almost impossible with conventional technology. The system allows a large number of interactive functions to be realised, including:

- Lighting control
- Heating/ventilation control
- Climate control
- Shutter control
- Alarm monitoring
- Energy management
- Central automation

Intelligent building control systems enable:

- Realisation of a complete solution according to the wishes of your project partners and customers, whether they are buyers, tenants or operators.
- Quick and simple adaptation of the functions to the individual needs and uses of the premises.
- Energy-saving, tailor-made control of all electrical consumers.
- Best possible safety and security for people and property.

Intelligent building control systems mean:

- The building will be up-to-date and profitable in the long-term.
- A shorter amortisation period.
- Cost advantages throughout the entire life-time of the building: From planning and implementation, through the building phase, sale or rental, right up to operation and administration.

## An innovative system

I Bus KNX is a universally applicable system and a synonym for smart home and intelligent building control. In this innovative system, all devices communicate with one another via a single bus cable which is installed alongside the normal power lines. This means that all electrical functions are connected with one (via the bus system), both in residential and commercial buildings.

- Lighting control and regulation
- Shutter control
- Regulation of heating, ventilation and air-conditioning
- Security and monitoring
- Central automation
- Energy and load management
- Audio/Video functions
- Remote control/remote maintenance
- Visualisation and operation
- Interface to other systems

## Advantages

- Reduces planning, installation and wiring costs.
- Can be expanded virtually without restriction and constantly adapted during the entire service life of the installation, and is therefore a secure investment in the future.
- Enables the integration of new functions at any time.
- Realises intelligent automation eg lighting and heating control during absence. This saves on energy costs and makes a significant contribution to environmental protection and our carbon footprint.
- Provides simple operation and monitoring thus forming the long-term basis for lower running costs, efficient facility management and optimum building maintenance.
- Offers a great deal of individual comfort, thereby increasing the value of the building for tenants and buyers.
- Increases safety and security for both people and the building, thus protecting the investment.

## What buyers, tenants and operators of property can expect

Irrespective of which target group you are considering for your investment, whether you are selling, letting or operating yourself, KNX technology offers certain advantages:

- Economic efficiency
- No other installation system makes it possible to run the building so efficiently. KNX is able to do this thanks to:
  - o Energy-saving individual room control for heating, ventilation and air-conditioning
  - o Optimum, tailored lighting
  - o Intelligent shutter control
  - o Optimisation of energy consumption via acquisition and evaluation of operational data from the building





### **Dirk Visser**

*Among several qualifications, Dirk Visser has a BSc in Electrical Engineering (University of Johannesburg) and diplomas in building energy management, business, marketing and sales management. He has worked for SCAW Metal, Genwest (GE), Schneider Electric and Comet Electrical Wholesaler. He is currently with ABB South Africa as building automation product manager for KNX. Dirk is also business development specialist and president for KNX South Africa.*

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