JOURNAL

Generation KNX

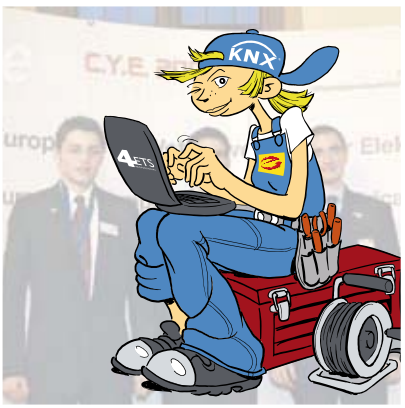
KNX at
World Skills 2011

Chat about KNX

ETS eLearning

New KNX Devices

Photo: courtesy of "WorldSkills International"



www.knx.org

2
2011

The worldwide STANDARD for home- and building control

Easy

Fast

Open

www.knx.org

ETS4 Professional

New licenses	PC dependent Host-ID	PC independent Dongle	Restrictions
ETS4 Professional	900,00 €	950,00 €	
ETS4 Supplementary	50,00 €	100,00 €	For Notebooks, max. 2 licenses, only together with ETS4 Professional
ETS4 Lite	100,00 €	150,00 €	max. 20 products
Upgrade licenses			
ETS3 Pro > ETS4 Pro	250,00 €	300,00 €	
ETS3 Supplementary > ETS4 Supplementary	50,00 €	100,00 €	
ETS3 Trainee > ETS4 Lite	50,00 €	100,00 €	
Educational licenses			
ETS4 Training Package	1.000,00 €	1.500,00 €	1 x ETS4 Professional, 10 x ETS4 Lite / 2 x Trainingshandbook

All prices: + VAT; + Service fee (15,– € / order)

http://onlineshop.knx.org

Editorial

Heinz Lux,
Director KNX Association

Generation KNX – Who?

Over the years, people have enjoyed talking about the different generations. The following quote is from the book "Foundations on the Art of Education" published in 1826: "It is against the character of the young to imagine what they would have to have learnt". This criticism was aimed at our grandfathers and fathers. Were we any different?
In 1965, The Who captured the youth rebellion prevalent at the time with their song "My Generation". In the 90s, the book Generation X described a feeling of disillusionment about the expectations of prosperity and career; i.e. people were "fed up with everything". And at the turn of the century, the "Generation of Eternal Interns" was the synonym for young people without hope of ever being rewarded sufficiently for their efforts.
Nowadays many talent shows give the impression that young people in particular find a career as a pop star more appealing than a solid qualification. But life is not like the reality TV shows which are on every night!
The Shell Youth Studies which have been carried out since 1953 clearly show that the younger generation understands what is important. For us this means that the KNX members will do even more for schools and their issues in the future. Building system technology is being increasingly taught and learnt in educational establishments using practical examples. New hardware modules for KNX training have been created for this purpose. Seminars about green buildings, system analysts, energy efficiency consultants and building automation or building system designers are in great demand – whether it lasts a day, a week or a year.

KNX project design and commissioning, basic and advanced courses as well as smart metering or KNX energy efficiency courses – that is what the younger generation are after. The rising number of certified KNX training schools (currently almost 200 in 35 countries) is reflected worldwide. These people are single-minded, systematic and up for anything!
Generation KNX – why not? Facebook, YouTube, Twitter – we are already there! And now we will also be at "Worldskills 2011" in London from October 5 – 8. The "world championship" of skills and abilities, the global competition for young people of 9 to 19 from all over the world. 150,000 visitors and 1,000 participants from 50 nations are expected to select champions from 45 professions over the 4 days. The basis for electrical installation from now on is of course KNX!
Young people thus already learn that energy efficiency goes hand in hand with KNX. It makes me optimistic to see the enthusiasm and application demonstrated by the younger generation as regards technology.

Editorial

KNX Projects

KNX System

KNX Tools

KNX Members

KNX Partners

KNX Out & About

YOUNG GENERATION

Generation KNX at WorldSkills 2011 in London

The international 2011 WorldSkills Competition in London for the first time based on KNX

Richard Sagar who won gold in Worldskills Calgary 2009

The popularity of conventional installation methods not using bus technology is set to decline in the near future. For this reason, it is very important that apprentices and those at the beginning of their careers are familiarized with bus technology and building control right from the start. KNX, as the only provider of a globally-standardized bus technology, is therefore proud to announce that the international WorldSkills competition will be based on KNX only from this year's competition in London onwards.

In many vocational schools, a large amount of potential for good, interested apprentices lies dormant. Modern technologies require skilled experts who, once they have completed their apprenticeships, can continue to work in innovative companies providing comprehensive services.

The home and building control of the future will require highly-trained professional people. The KNX bus technology presents an excellent opportunity for companies to provide young professionals with good prospects after their apprenticeship is

YOUNG GENERATION

finished, and thus bind them to the company.

WorldSkills London 2011 puts its trust in KNX

Following the general trend in home and building technology, the organization of WorldSkills has decided to base its competition on KNX. The venue for this world premiere will be ExCel, London, October 5-8 2011. In this 41st ever WorldSkills International Competition, teams from 50 different countries will be competing. The KNX technology will play an important role: the practical tasks will include work relating to KNX, hence every candidate will need to be familiar with the KNX technology. KNX, as the worldwide BUS standard equally accepted in all countries, is an ideal technological platform for this international professional competition.

KNX: a valuable asset also after the competition

"The youth of today is open to change: we are obliged to give them the opportunity in the future to get involved in the exciting sector of electrotechnology and KNX. We hope that all the participants enjoy the competition and wish them every success with KNX," says Stephan Bauer, President of the KNX Association. KNX Association, its members as well as training centers and KNX partners have invested a great deal to ensure that the young generation's knowledge on KNX is improved. New KNX Training centers have been set up in many new countries, reaching a total of 185 KNX Training centers in 35 countries! Already today many contestants and experts of WorldSkills are listed as one of the 25,000 certified KNX Partners.

More Info: *http://www.knx.org/worldskills2011*

WorldSkills is a competition for non-academic professions for participants up to 23 years old. This event is held every two years. This Olympics of professions has more than thousand participants. The competition consists of 40 major professional disciplines. In Skill 18, the electrical installers are tested. The world's best electrical craftsmen will compete in London between 5 and 8 October.

YOUNG GENERATION

KNX in young competitions

KNX Award Young Generation

The Young Generation KNX Award shows excellent KNX projects of young pepole worldwide, that are leading in innovation and technological progress in the field of home and building automation.

National Young Competitions

On national level the respective electrical trade associations in each country takes its responsibility. Since many years they organize competitions for young people of the electrical trade, based on KNX.

European Young Competitions

On European level the European Association of Electrical Contractors (AIE) organizes the Competition Of Young Electricians, based on KNX, every two years. All participants were already victorious in a national competition and are sent to the European competition to represent their country.

Worldwide Young Competitions

On a worldwide scale the biannual event WorldSkills is organized. WorldSkills is a competition for non-academic professionals up to 23 years. The world's biggest skills competition for the artisanal sector consists of 40 Skill 18 the trade of electrical installation is tested, in 2011 for the first time based on KNX.

YOUNG GENERATION

Interview with Michael Hourihan, leading expert of the Worldskills London 2011

Michael Hourihan - Chief Expert of Worldskills London 2011 – Skill 18: Electrical Installations

What was your first experience with KNX?

During the expert's discussions following the World Skills Competition in Calgary in 2009 it was suggested by some experts that we should consider the use of KNX as part of the installation for the next Competition in London. Much discussion took place and the many advantages of KNX were highlighted and it was decided that we would use KNX as an operating system for part of the main module in the 2011 Competition in London. This was my first exposoure to the KNX system.

Why did you choose KNX as technology for the competition?

KNX was chosen because it is a worldwide system recognized and used all over the world. KNX equipment is manufactured by most manufacturers of electrical equipment and so KNX equipment is easily sourced. KNX equipment is designed to control many different systems including lighting, temperature control, security, audio/visual and communication systems. All these options opened up many possibilities for the design of the the particular module using the KNX equipment.

What do you expect from KNX in the competition?

Using KNX equipment in the World Skills Competition will expose electrical apprentices to a very modern and flexible energy management system. This can only be a very positive experience for all involved. As we all know, technology is changing very quickly and it is very important that we ensure that all young apprentices and engineers are familiar with the most up-to-date systems, and by using KNX in the World Skills Competition we are exposing everyone involved to a very modern and progressive system.

Attender at WorldSkills 2011 in London

United Arab Emirates	Taha	Jassim	Expert
Austria	Dominik	Rechberger	Competitor
Austria	Christian	Bräuer	Expert
Australia	Benjamin	Houghton	Competitor
Australia	John	Rudge	Expert
Belgium	Pierre-Olivier	Van Isacker	Competitor
Belgium	Denis	Devos	Expert
Brazil	LUCAS	SOUZA	Competitor
Brazil	Ivan T	Cortez	Expert
Canada	Timothy	Twa	Competitor
Canada	René	Jetté	Expert
Switzerland	Gian-Andrea	Casaulta	Competitor
Switzerland	Adrian	Sommer	Expert
Germany	Daniel	Wagner	Competitor
Germany	Klaus	Drasdo	Expert
Spain	Guillermo	Rull	Competitor
Spain	Juan Enrique	Pérez	Expert
Finland	Matti	Alarautalahti	Competitor
Finland	Osmo	Heikkinen	Expert
France	Pierrick	MANDIN	Competitor
France	Bernard	Finet	Expert
Hungary	Ferenc	Csíkos	Competitor
Hungary	Zoltán	Kummer	Expert
Indonesia	Yudi	Azwar Hamid	Competitor
Indonesia	Zaenal	Arifin	Expert
Ireland	Michael	Hourihan	Expert/ ChiefExpert
Iran	Sirous	Nakhodchi	Expert
Iceland	Arnar Helgi	Agustsson	Competitor
Iceland	Stefán	Sveinsson	Expert
Japan	Rikiya	Seki	Competitor
Japan	Yuji	Okano	Expert
Korea	Seon Jung	Hwang	Competitor
Korea	Sang Kook	LEE	Expert
Macao, China	Cheng	Ku	Competitor
Macao, China	Ka U	Chan	Expert
Malaysia	Muhammad Norsyazani	Abdul Kadir	Competitor
Malaysia	Mazlan	Abdullah	Expert
Namibia	Piet	Viviers	Expert
The Netherlands	Ruben	van Gemert	Competitor
The Netherlands	Pieter	Hoving	Expert
Norway	Bernt Erlend	Fridell	Competitor
Norway	Agnar	Holen	Expert
New Zeland	Shaun	McInerney	Competitor
New Zeland	Luke	Boustridge	Expert
Oman	Essa	Al zedjali	Expert
Portugal	Pedro	Cordeiro	Competitor
Portugal	André	Rodrigues	Expert
Saudi Arabia	ALI	ALKHALAF	Expert
Sweden	Andreas	Holmberg	Competitor
Sweden	Per	Svensson	Expert
Singapore	Shing Haur	Cheng	Expert
Thailand	Somboon	Sangtheerathiti	Expert
Tunisia	Taoufik	Benslimene	Expert
Taiwan	YI-CHIA	CHEN	Competitor
Taiwan	Min-te	Chang	Expert
United Kingdom	Christopher	Young	Competitor
United Kingdom	David	Thomas	Expert
Vietnam	Binh	Dang An	Expert

YOUNG GENERATION

Chat with generation KNX

Interview with the 1st winner of CYE 2010

Markus Stöger
(Austria)
1st Winner of CYE 2010

Can you tell us about your experience as a winner of the CYE2010?

For me, the competition was a very special experience, since this was my first time traveling abroad and flying in an airplane. I was able to adapt myself quickly to the environment thanks to my seniors. At the competition itself, I could find my rhythm pretty quickly. It was pretty exciting to have the opportunity to take a look at the competitors every evening.

Based on your experience with KNX, can you tell our readers the greatest advantage of the KNX Journal of the KNX tool?

I honestly have to admit, during the time before the competition started, my involvement in KNX was very less marked, because it was hardly used in my company. However, we were taught KNX at the vocational school very well. I like very much how KNX is based and structured. Of course, one of the big advantages is the variety of manufacturers and how quickly changes can be made according to the customer´s demands.

Can you give our future participants some tips on KNX?

If you want to install such a system (KNX), it will be necessary to plan the installation accurately in advance.

Do you want to install KNX in your own home or apartment?

Since it will take a while until I have to think about this topic, I actually have not thought about this. However, I am very convinced by the KNX system and I will most likely install it for myself as well.

Interview with a KNX Partner from Italy

Jacopo Martino
Trento (Italy)
Partner Number: 27593
jmartino@hotmail.it

Why have you become a KNX partner?
Because my institute offered me this possibility. I think that this will improve my chances to find a good job.

What has fascinated you as a young person so much with KNX? Did you choose only KNX, or have you also got training in other systems? Why?
The possibility to create a system which is able to control entire buildings with only a PC or with appropriate controllers. I chose only KNX because it is the only course that was offered to me by my school.

Are you currently working in a company in which you are able to use your KNX skills?
If yes, in which kind of projects are you currently involved in (home or building projects)? Could you please list a couple of projects in which you have collaborated?
No, I am not working in any company now as I am still studying at a college but it could possibly happen in the future. Or at least I hope so.

Would you recommend the course to other young people?
Absolutely. This sector is still „up and coming“ and it will keep developing. It is a future proof system that offers increasing possibilities.

If you are currently not working in a company, do you think that KNX will increase your chances to find a future job?
Yes, of course, that is the reason why I took the course.

In order to become a KNX partner, you have followed a certified training. What are your experiences with KNX?
I just got the certification after having followed the training.

YOUNG GENERATION

Young Generation from ITE College East Singapore: Opinions on KNX

1. 1."KNX is a smart Home automation system and its software ETS is simple to use. I would love to work with a company that is involved in KNX."

Sharul Aizad, 19

2. 2. "KNX is an intelligent and smart system with a software ETS that is easy-to-use with minimal training. KNX is recognized worldwide. I am proud to be one of the users of the KNX system."

Mohammed Ruzaini, 19,

3. 3. "KNX is a convenient and easy system for domestic and commercial projects. KNX helps save energy: the ease of use of the ETS software for programming KNX installations is very positive."

Suhaibatul, 18

4. "KNX is fun and interesting to learn. Once its concept is clear, it is easy to use. I am happy that KNX, the worldwide home and buildingsystem, forms part of my course as electrical contractor."

Mason Yap, 19

5. "In a modern world, where technology is omnipresent, KNX simplifies life. People like me no longer want to do things the hard way. Home and building management is so much more convenient with KNX."

Muhammad Aidil, 19

6. "KNX is a system with an excellent software tool, ETS. KNX uses less wiring and saves energy."

Mohammad Danial, 18

7. "The KNX lectures are fun, interesting and not difficult. If I get the opportunity, I would love to learn even more and install KNX in the future."

Andy Chua, 19

8. "Of the module 'Electrical Contracting', KNX is the module that is by far the most enjoyable and interesting. I hope to learn more and join a company that works with the KNX system."

Kew Ying Heng, 18

9. "KNX is the best technology and ECO friendly. It saves energy, uses less wires and is recognized worldwide."

Muhd Norawan, 19

10. "KNX is such an advanced technology, that every future home should use it."

Nicholas, 18

Interview with the 2nd winner of CYE 2010

Bernt Erlend Fridell
(Norway)
2nd Winner of CYE 2010

What was your first experience with KNX?

My first experience with KNX was in vocational school, learning about the KNX-basics. After working for about one year in my company, I got my first wiring and programming job. The job was pretty big, and I took part in wiring, linking and programming.

What do you like best about KNX?

I like that you can buy components from different suppliers, and that everything works together independent of the brand-name. I do also like that you can choose very precicely how to create your own "setup".

Do you want to install KNX in your own house or apartment?

Yes, most likely. KNX gives me the opportunity to design my house the way I want, combined with the ability to easily expand the electrical system.

YOUNG GENERATION

Interview with the 3rd winner of CYE 2010

Arno Conradin
(Switzerland)
3nd Winner of CYE 2010

What was your first experience with KNX?
I had my first experience with KNX when I took part in a championship. I didn't know much about KNX before. I did know that it is a bus system for house automation, but not much more. So my first encounter was at the training's preparations of the championship. I was really surprised when along with my first steps I realized that applying KNX is definitely less complicated that I had imagined. Also the fact that the components of different manufacturers are compatible without a problem was an important realization. One aspect that makes it all a little more difficult – the way I see it at least – is the fact that every manufacturer describes the possibilities to set the configuration in other words. As a consequence, dealing with not so well-known manufacturers problems can easily come up.

What do you like best of KNX?
Most of all I like the fact that you can be so flexible. Nowadays the least of customers know what exactly they want at the start of construction. After finishing the customer knows about his or her essential needs and what would be best to do. That's not a problem for me then, I can log in, change a few connections, set some components in a different way – easily done. Wiring isn't necessary, it's very easy that way.

Do you want to install KNX in your own house or apartment?
Of course. Yet, it's still a matter of finance where advatages have to outweigh the disadvantages and the question if an investment into a standard rented apartement is worth doing remains open.
Over time, I hope this technique will continue to develop and also make its way into a standard rented apartment.

Interview with a KNX Partner from Italy

Andi Frenademez
Bruneck (Italy)
Partner Number: 24795
andi.frenademez@gmail.com

Why have you become a KNX partner?
I became a KNX Partner because I see a lot of future in the KNX technology. In addition, the KNX home and building automation system becoming increasingly more important for instance for energy saving measure implementations.

What has fascinated you as a young person so much with KNX? Did you choose only for KNX, or have you also got training in other systems? Why?
I have been interested in the KNX technology since I started my professional career because home and builidng automation control systems and the need for energy savings have grown in importantce. I have decided to use the KNX system because it is a worldwide standard and because the variety of products in unmatched.

Are you currently working in a company in which you are able to use your KNX skills? If yes, in which kind of projects are you currently involved in (home or building projects)? Could you please list a couple of projects in which you have collaborated? Would you recommend the course to other young people?
I work in our family business, the Electro Frenademez GmbH, where we are involved in the field of home and building automation system, of course based on the KNX system. My first project was the Museum Ladin Ursus Ladinicus in Sankt Kassian in the Gadertal, South Tyrol. It featured controls for the lighting, heating and ventilaton systems and was controlled by a touch panel.

Would you recommend the course to other young people?
Of course I can recommend this course as it is an additional qualification that will help your career. I completed the certified training in the vocational training center in Brueck, South Tyrol.

In order to become a KNX partner, you have followed a certified training. What are your experiences with KNX?
I had good previous knowledge of the ETS as the ETS was a frequent topic during my professional education.

KNX ONLINE

YouTube

www.youtube.com/user/knxAssociation

facebook

www.facebook.com/KNXassociation

twitter

www.twitter.com/KNX_Association

LinkedIn

www.linkedin.com/company/knx-association

YOUNG GENERATION

Education and Culture
Lifelong learning programme
COMENIUS

Comenius
Smart KNX Home
Europe

Belgium | Czech Republic | Finland | Germany | Hungary | Italy

Comenius Smart KNX Home in Europe

Part of the Lifelong Learning Programme, Comenius seeks to develop knowledge and understanding among young people and educational staff of the diversity of European cultures, languages and values. It helps young people acquire the basic life skills and competences necessary for their personal development, for future employment and for active citizenship.

Comenius has the following goals:

- To improve and increase the mobility of pupils and educational staff in the EU Member States,
- To enhance and increase partnerships between schools in the EU Member States, with at least three million pupils taking part in joint educational activities from 2011,
- To encourage language learning, innovative ICT-based content, services and better teaching techniques and practices,
- To enhance the quality and European dimension of teacher training and
- To improve pedagogical approaches and school management.

About "The Smart Home in Europe"

The project application "THE SMART HOME IN EUROPE" devised by the following six secondary vocational colleges from six different countries was approved by Comenius:

- Technisch Instituut Sint-Lodewijk in Genk, Belgium,
- Kokemäenjokilaakson Ammattiopisto, Kokemäki, Finland,
- Istituto Tecnico Industriale Statale "Fermo Corni", Modena Italy,
- Kuniberg Berufskolleg Recklinghausen, Recklinghausen, Germany,
- Vyšší Odborná Škola a Střední Průmyslová Škola Elektrotechnická Plzeň, Pilsen, Czech Republic and
- Békéscsaba Central Vocational School and Student Hostel, Békéscsaba, Hungary

The project aims at developing a home which includes the necessary technology to allow for devices to be controlled automatically: a SMART HOME IN EUROPE. These homes can automatically control the temperature and the level of security and permit efficient communication with the outside world.
Initially, it was planned to start the project with a marketing research to identify:

- the needs of the target group,
- the necessary applications that have to be developed,
- price considerations and
- user-friendliness.

It was quickly discovered that such marketing research had already been conducted, and all the technical devices needed were on the market. It was also found that the smart technology was unknown to the majority of common people, and that it was not at all appealing to the target group (the elderly).

Mr. Wilde explaining the HWG Smart Home Philosophy

Some KNX Devices of TAMK

YOUNG GENERATION

As a consequence, it was decided to change the focus from research to promotion in order to create a market for *"THE SMART HOME IN EUROPE"*.

First meeting in Recklinghausen, Germany

The project coordinators from the six schools met for the first time in Recklinghausen (Germany).
During that meeting they distributed work packages for The Smart Home in Europe: Promotion, Lighting, Heating, Communication, Video and Audio.
They agreed to use the KNX-system to produce compatible applications.
The group visited a Smart Demonstration Home in Hattingen using KNX, developed by HWG Bochum and the Frauenhofer Gesellschaft in Duisburg.

Second meeting in Kokemäki, Finland

The pupils presented their applications: German girls spoke about promotion, Finnish boys about lighting, Czech boys about communication, Hungarian boys about video and audio, Italian boys about solar energy and last but not least, Belgian boys presented a heating pump for The Smart Home in Europe.
In two workshops, the pupils learned how to develop promotion and how to program a KNX-system.
The group also visited the University of Applied Sciences in Tampere, where KNX systems are being developed and taught. *(http://www.tamk.fi/en/)*.

Third meeting in Békéscsaba, Hungary

Sandor Kasoly, a teacher of the Hungarian school, prepared this meeting by following some extra KNX lessons in Budapest. He then trained his pupils on the latest KNX technology so that they could present the KNX philosophy to the students from the other countries.
During a workshop, Sandor Kasoly explained the hardware and software connections between KNX devices for audio and video.

Prospects...

The project was followed by meetings in Italy (Modena), the Czech Republic (Pilsen) and Belgium (Genk).
Further projects are underway. The Technisch Instituut St. Lodewijk in Belgium and the Istituto Tecnico Industriale Statale 'Fermo Corni' in Italy are working on solutions for conserving energy. Students of the Békéscsaba Central Vocational School and Student Hostel, Békéscsaba in Hungary are working on audio and video control systems. And a team of budding electricians at Vyšší Odborná Škola a Střední Průmyslová Škola Elektrotechnická Plzeň, Pilsen, Czech Republic continue work on the communication technology in 'Smart Houses'.
The main goal was to bring teachers and pupils of different countries together in a "Smart Home" equipped with the KNX standard.

More information:
http://www.spse.pilsedu.cz/comenius/

Pupils of the host school present KNX devices for audio and video

Teachers and pupils of "The Smart Home in Europe" in front of the town hall in Békéscsaba, Hungary (May 2009)

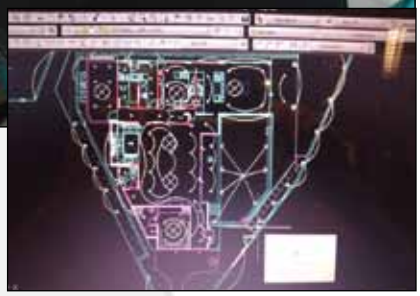
YOUNG GENERATION

Insitute of Technical Education College East Singapore

KNX Home Projekt in 4 Merino Crescent in Singapore

During the professional training of our engineers we are continuously facing the challenge to realize a training experience for the trainees which is as close to practical reality as possible. The young generation of ITE students has the chance to learn the KNX system as part of their studies at the Department of Electrical Engineering. The students at the ITE College East in Singapore have to put into practice what they have learned within their study time.

An excellent opportunity presented itself when the owner of the 4Merino Crescent Apartment Building offered a 3-story bungalow construction as a project where students could contribute to the work process. KNX Systems were to be integrated into the project.
Mr Lee Chee Meng and Mr Raymond Yeo led the project in cooperation with seven students of the Department of Electrical Engineering of the ITE College East.
The variety of work for the students during the project had the following contents:



Students wire the KNX devices in the distribution box
Planning and design in AutoCAD

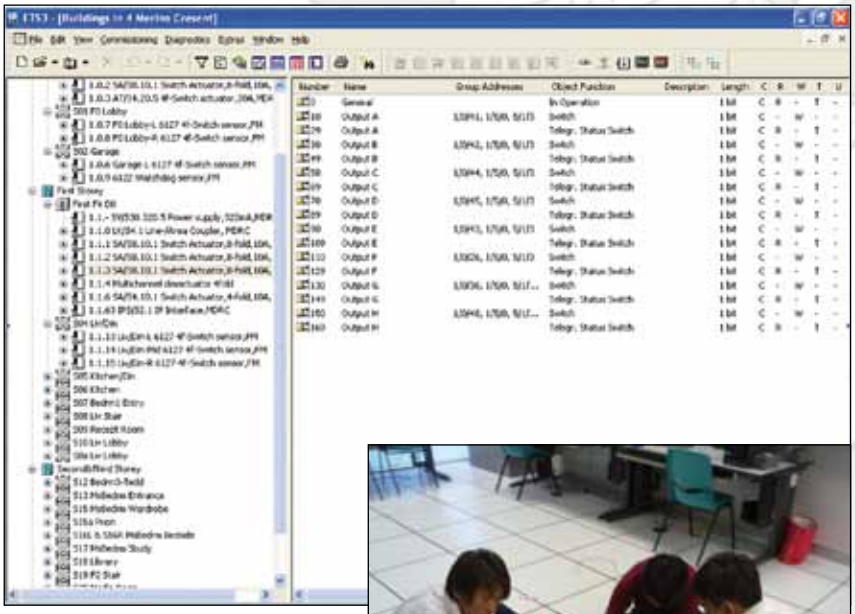
- planning of the systems
- wiring in the electrical distribution box
- installation
- programming with KNX
- testphase and the starting up of the KNX system

The project offered ideal conditions for the students of ITE College East to co-operate in a real project. The trainees had to take several aspects into consid-

Project before Completion.

Project after Completion.

YOUNG GENERATION



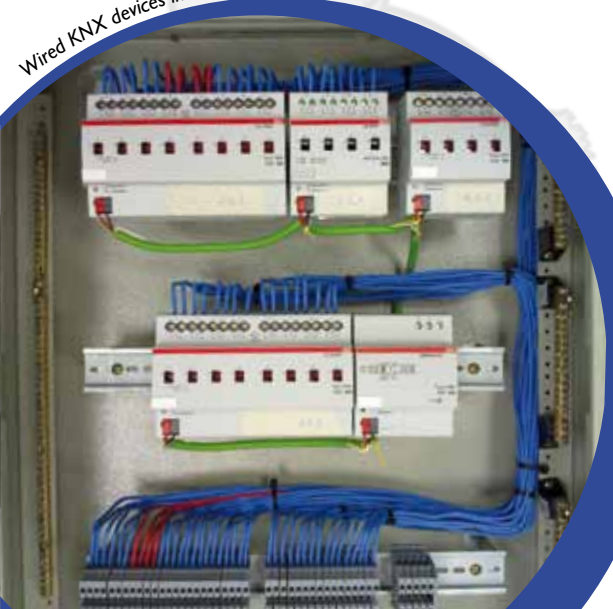
ETS-programming of the 4 Merino Crescent, Singapore.

Students wire the KNX devices in the distribution box

eration. The standards for industry had to be respected, the deadlines had to be met, and the work of the fitters on the construction site had to be coordinated in order to ensure that everything went off smoothly.
The CAD-program was used for the planning phase. KNX-equipment was wired in the distribution box.
Later the students installed the distribution box in the basement and connected the wiring for lighting with the KNX-devices.
ETS-programming was put into practice with the help of a laptop.
The staff checked the programming of the students before programs were run.
The experience gave our students a better understanding of the work place, the surrounding that they can expect, and expectations they will have to face.
The following quotation sums it up in short:
Things I hear, I'll forget.
Things I see, I'll remember.
Things I do, I understand.

More information:
lee_chee_meng@ite.edu.sg

Wired KNX devices in distribution box.



Checking of the programming before project was started.

YOUNG GENERATION

TECHNISCHE UNIVERSITÄT DARMSTADT

TU Darmstadt
Darmstadt, Germany

A Journey to China

Intelligent Building Technologies Taught Practically

"I have been working at this test facility for a few weeks and it has been a lot of fun", says Andreas Häufglöckner. Häufglöckner is a 26 year old engineering student at the Technische Universität Darmstadt (TUD) and is one of the first students to work with this new electric test facility. The test facility was adapted from the same system that was implemented in the school´s solar home that took first place in Washington D.C.´s Solar Decathlon 2009, as well as Solar Apartment, which was present in Beijing "Automation World" fair. This test facility gives students the opportunity to work with this technology in a research setting. The Solar Home, Solar Apartment and test facility are completely wired using intelligent ABB-building system technology.

The test facility is studied by both power systems engineering and electrical engineering students, like Andreas Häufglöckner. The student reported, "I was very busy learning how the electronic devices interact with software". Häufglöckner found the software integrated with the KNX system to be extremely user-friendly, "Even complex programs are possible for example to display individual consumption data for the Busch-ComfortPanel."

"From now on, eight groups will work every semester at the test facility, to become familiar with the innovative products and applications of the KNX system in Smart homes", states Dipl. Ing. Lutz Steiner, a research assistant and PhD. Student in Renewable Energies at the Technische Universität Darmstadt. TUD first constructed the test stand in order to focus on investigating building services engineering. The university´s primary objective is to study how the KNX system can be used in order to lower house consumption, which can often be much more cost efficient than improving solar panel production.

This test facility results from the TUD and ABB corporation in 2009 when the school teamed up with ABB to build their home for 2009 Solar Decathlon in Washington D.C. Steiner´s goal by integrating the curriculum with the KNX system test facility is to give the students the opportunity to work with a product that has realistic applications in homes across the country.

User-Friendliness becomes Crucial

When Steiner and his team were deciding how they would organize their electrical control system for the Solar Home, they wanted a system that could handle a multitude of commands, but more importantly, a system that consumers could operate almost effortlessly. ABB´s KNX system satisfied both of those stipulations. The KNX system is a comprehensive organizational system of electrical energy consumption with a control panel where controlling the whole system seems almost inherent. Steiner was so impressed by the system that he adapted it to a test facility and allows students to study the system. By working with the system, Steiner hopes that the students can gain an understanding how to design a system that

Energy consumption visualisation at the test facility

Andreas and Felix Feix are working at the test facility

can be both technologically advanced, but so simple a child could operate it. The KNX has many other uses than just turning lights on and off. „In addition to the photovoltaic system, lights, and home appliances, we have attached a KNX controlled power station and a KNX controlled PV backup battery storage to the stand“ said Steiner. „By doing so, we can measure the production of power coming from the Photovoltaic's, as well as monitor how much we have stored in the battery, all with the KNX system. We even added an electric charge station for electric vehicles into the system. By installing a KNX system in our test facility, we are able to study the system and some of its more advanced applications.

The freedom to experiment and research with the system helped Steiner and his associates greatly when it came to constructing the Solar Apartment in Beijing at the the ABB “Automation World” fair in May of 2011.TUD was able to use what they learned about the system in the test facility and implement it in this Solar Apartment over 7,500 kilometers away. Although the apartment was only nine by four meters in area, TUD and ABB employees were able to integrate a PV backup battery storage and an electrical vehicle charge station.

Integration of local products with KNX

„The “Automation World” fair in Beijing in May 2011 is the largest exhibition of its kind in the Southeast Asian region; about 2,200 visitors and ABB employees came to catch up on new products… the solar house apartment was a popular stop shop,“ says ABB's project manager Bernd Wagner.

The KNX system demonstrated that intelligent building electricity management can be integrated with distribution boxes in a very straightforward manner. Rather than being completely independent systems, KNX can create a very collaborative system that can actively monitor Smart Meter, intelligent home appliances, energy storage, energy consumption, energy production, as well as automatically control energy consumption using Smart Energy Demand awareness.

The apartment was fully furnished and boasted a plethora of household kitchen appliances, a television, lights, as well as the appropriate technology to attach solar panels. All technical equipment was fully functional, including a charging point for electric vehicles which was connected to the building. The whole electrical system was routed to a computer and could then be completely controlled by a handheld iPad. This integration of a user friendly controller made it very popular with the visitors of the fair.

„We have even built Chinese versions of home automation applications,“ says Wagner. „Together in a short time we have depicted a complex subject and have integrated highest reliability in the local market.“ This integration of local products could not be possible if it were not for the fact that the apartment was equipped with the KNX worldwide standard.

More information:
lsteiner@re.tu-darmstadt.de

Test facility

Solar house apartment at the ABB Automation World 2011 in Beijing

YOUNG GENERATION

University of Applied Sciences Technikum-Wien
Department of Embedded Systems

TTU Vienna - Inst. of Computer Aided Automation Systems Group

ANT goes KNX

The demographic trend in industrial nations towards an aged population and a decline in birth rates requires new strategies to cope with the upcoming social and economic challenges. Ambient Assistive Technologies (AAT) offer a solution to increasing costs and needs in elderly care. They combine a wide range of technologies, methods and services with the aim of improving the quality of life of not only aging but handicapped people in general. AAT enable people to live independent and self-determined lives in their familiar homes with a certain level of comfort and safety. Thus, AAT are closely linked to technologies such as smart homes, building automation systems and also KNX.

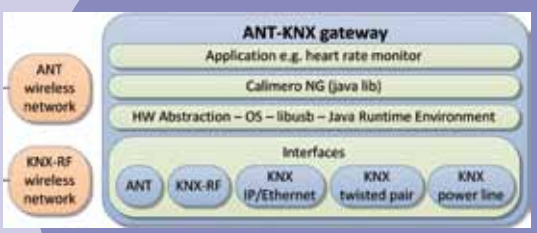
The master thesis of Luka Samardzija aims at exploring new possibilities and realizing applications that emerge when vital signs data (e.g. the heart rate) become available in KNX installations. The main task is therefore the development of an ANT to KNX gateway in hardware as well as software. ANT is an ultra-low power wireless sensor network technology, which is well-established in the sports and fitness equipment sector used, e.g., by heart rate monitors and pedometers to wirelessly transmit data from a sensor to a watch. Nowadays, ANT is becoming more and more used in the health-care and AAT sectors to be able to remotely monitor vital signs such as blood pressure, blood sugar and weight.

The first step within this project is to develop the required hard- and software system design for the ANT KNX gateway (Figure 1). A powerful embedded system is exploited as the base platform, where further components can be integrated. An open KNX RF interface (KNX RF interface based on TI's CC111x) will be engineered, while a USB-based ANT interface will provide ANT connectivity, thus realizing an integration of both wireless technologies (Figure 2). Standard interfaces (e.g. KNXnet/IP interface, TP-UART based TP1 interface) will be used for other physical KNX media when appropriate. The software part of the gateway will consist of an embedded linux-kernel based OS with a JAVA runtime environment. Regarding the KNX software stack, the well-known Calimero NG JAVA library will be used as a basis and extended if required.

The combination of KNX and ANT is considered a highly promising first approach for future comprehensive AAT solutions. Therefore, a close cooperation between the Department of Embedded Systems, University of Applied Sciences Technikum-Wien and the Automation Systems Group, Vienna University of Technology was established to supervise this project and to further promote AAT approaches. The main expertise of the Department of Embedded Systems lies within the topics of AAT, supportive tools and smart home technologies, while the Automation Systems Group contributes its in-depth knowledge of building automation, smart homes, distributed control systems, and in particular, KNX. This student project shall allow to further emphasize the topic of AAT in research and development as well as in various courses and lectures held at both academic institutions.

More information:
samardzija@technikum-wien.at

Evaluation board with ANT and KNX RF interface



System design

KaHo Sint-Lieven
University College
Gent, Belgium

Young meets Old

A Demonstration Suitcase for Ambient Assisted Living as Student Project

As a project in the 3rd grade Faculty Electrical Engineering, three students from the KAHO Sint Lieven in Ghent/Belgium have opted to jointly develop a suitcase, with which they can demonstrate the advantages of KNX and smart home technology for Ambient Assisted Living. The KAHO Sint Lieven is a long standing member of the KNX Scientific Partnership.

Ambient Assisted Living is the term used to designate the effort to try and keep elderly people as long as possible in their own home, by the use of smart technology in combination with a link to a service center, which is automatically contacted in case of emergency situations.

The students decided to design within the limits of a portable suitcase a service flat to scale. A service flat is quite common in Belgium and designates living areas for elderly people, in which they can live independently but still rely on nearby medical or other assistance.

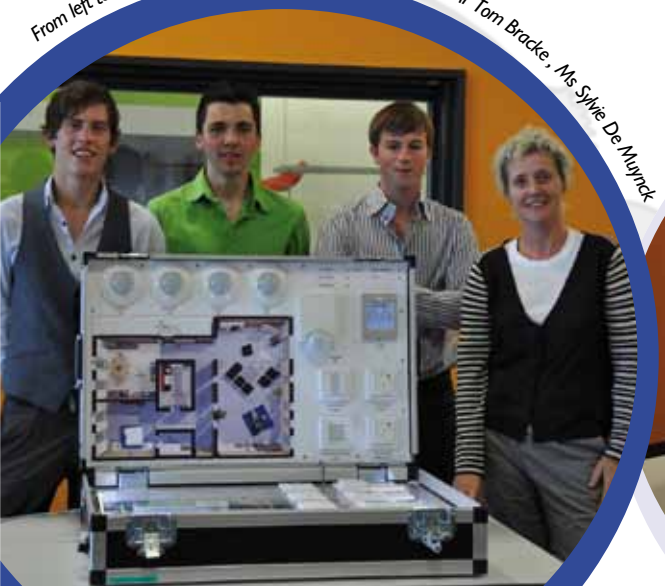
The suitcase is designed in such a way that the lid shows the ground plan of the service flat, where the inside is fitted with the KNX devices under a plexiglas cover.

The service flat to scale consists of a number of areas, in which the following functions will be realized:

Generally:

- all rooms will be surveilled with a movement detector not only to activate or deactivate lighting but also to be able to notice long durations of inactivity, with a direct link to a call center.
- The entire flat is properly ventilated 24 hours a day at minimum ventilation speed. In case of activities like cooking the speed is automatically increased.
- For heating, the flat is divided up into two zones controlled by means of thermostats that are simple to operate.
- An all off function is realized by means of a card reader at the entrance.
- In the kitchen, a function ensures that when turning on a cooking plate, the hood is automatically turned on as well as an automatic deactivation of any cooking plate after a set time after it was turned on. The kitchen will also foresee switchable socket outlets for kettle and/or coffee percolator.
- The bathroom as well as the bedroom are equipped with a pull cord light switch as well as a panic button for emergency situations. In that case, the external lighting will start flashing. The bedroom is moreover equipped with automatically operated blinds.
- In the hallway, the lighting is set to orientation light during the night to easily find the way to the bathroom.

More information:
sylvie.demuynck@kahosl.be



From left to right Mr Tim De Clercq, Mr Dimitri Welvaert, Mr Tom Bracke , Ms Sylvie De Muynck

portable suitcase

YOUNG GENERATION

Bergische Uni Wuppertal
Wuppertal, Germany

KNX Building System Technology in Competition

The team from the University of Wuppertal took part in the Solar Decathlon Europe in Madrid as one of 20 student groups. The teams competed with each other in ten different categories – including architecture, thermal comfort, marketability and sustainability – with the design and implementation of an energy plus house. The Wuppertal students concentrated their efforts on a building that indicates a positive energy balance over the entire year; not only in Madrid, but also in other European locations. Extensive simulation studies were carried out for Wuppertal and Copenhagen. They prove that the building concept also functions under local climatic conditions.

Together with their industry partner Gira Giersiepen GmbH & Co. KG, the team from the University of Wuppertal developed a building automation system based on the KNX standard. In addition to the control of individual components such as the shading or night cooling system, a comprehensive smart metering system was the central focus at the planning stage. The current energy consumption and gains were continually displayed through a visually appealing but simple visualization tool in order to influence user behavior and achieve an energy-optimized operational mode for the building.

The User can Engage

A night cooling system consisting of two opaque ventilation flaps in the north wall and two windows in the top section of the south wall is used for passive building cooling. A natural air flow through the house is thereby guaranteed. Both ventilation flaps and both windows are fitted with chain drives which can be controlled with blind actuators. The user can intervene in the control via the touch panel but automatic operation is also possible based on the room temperature or external temperature. The windows and/or ventilation flaps can be automatically raised once a certain cooling potential is achieved.

A compact ventilation device is used for active ventilation, heating, cooling and water heating and is operated independently of the building automation system. For the purposes of the competition, it was extended with an indirect, adiabatic humidifier. This consists of three high-pressure nozzles which are positioned in the foul-air duct to moisten the extracted air immediately in front of the heat exchanger. The pump for the humidifier is controlled via a KNX switch actuator. The measurement of the relative humidity as well as the temperature of the extracted air and ambient air is carried out in turn via sensors with 0-10 V signals. Using control algorithms to regulate the pump, it can be checked whether there is a cool-

ing requirement and whether the ambient air is dry enough to make adiabatic humidification advisable.

LED for the lighting

The lighting in the house has also been completely integrated into the KNX system. The entire lighting system is based on LED technology. An illuminated ceiling with 36 elements is used indoors for illumination and can be controlled individually by two KNX DALI gateways. Additional spotlights are installed at the work station, in the kitchen and bathroom as well as above the dining room table. The external lighting is carried out via KNX switch contacts.

In addition to the control system, a smart metering system based on the KNX system was implemented in the energy plus house submitted by the University of Wuppertal, since the recording and visualization of consumption data is becoming increasingly of interest as part of the energy-optimized operation of buildings. The Gira HomeServer is used to record and visualize the data. Ten electricity meters are used in total which measure both the consumption of individual circuits as well as the power production of the solar power system. The user can thus view the current power consumption of individual components – such as lighting or heating/ventilation/air conditioning – and analyze long-term consumption data such as day, week and month values. The additional display of power production trains the user to only operate certain devices in the event of a high power gain so that he can be increasingly independent of the power grid.

In addition to the electricity meters, three heat and cooling meters as well as a water meter were incorporated. The range of meters with KNX capability is however still very limited. Special requirements such as the measurement of heat and cold as well as water/glycol mixtures were the reason for using devices with the M bus protocol. A corresponding M bus KNX gateway translates the M bus protocols and the data is then recorded and visualized by the Gira HomeServer. The user can thus monitor the heat gain of the solar thermal system as well as the heat withdrawal caused by warm water. In addition, a combined heat and cooling meter was used for the underfloor heating/cooling which measures the appropriate heat or cooling consumption.

After the competition, the energy plus house was installed in Wuppertal again for further research. The installation of the extensive monitoring system enables the technical data and simulation results to be monitored during actual operation and in everyday life.

YOUNG GENERATION

Freiherr-vom-Stein-Schule
Neumünster, Germany

KNX in schools – Pedagogic Effect

We clearly use less electricity per lesson."
"That may be the case but optimum lighting for learning is also important to us."
"You have it quite cold in the classroom most of the time."
"We feel comfortable and yet save on the heating."
This is what a discussion about energy efficiency could sound like in the Freiherr-vom-Stein school in Neumünster. The KNX installation enables the energy consumption of individual functions in the classrooms to be observed and documented in detail. Energy competitions can be implemented as part of a physics project. It is not only a case of practicing the conscious use of energy.

Conscious use of energy

KNX therefore has a unique pedagogic task in the Freiherr-vom-Stein school in addition to building automation. In this newly renovated, four-form entry secondary school, KNX controls the lighting system, sun protection, ventilation and the room temperature fully automatically based on the electronic timetable. Manual operation of the functions in the classrooms meets the individual requirements of pupils and teachers. The fact that energy consumption in individual classrooms can be observed and evaluated can be traced back to an idea formulated by the system integrator. The Neumünster engineering office Beyer started with the fact that nowadays energy is continually available everywhere and that people are largely unaware of their personal energy consumption. When CO_2 emissions are reported in the media, a normal person can hardly imagine the amount of energy involved and what energy his lighting, heating or other household devices use.

Calculating CO_2 emissions

With KNX, it is easy to measure energy consumption and make it available via the bus. Consumption data can be represented via a visualization display, trends can be displayed and conversions to the corresponding CO_2 emission are carried out.
In a school in which building automation is carried out via KNX, it would seem opportune to use the school's energy consumption as illustrative teaching material. The teachers and the school administration were immediately delighted with the idea, which the system integrator demonstrated to them using a model installation. The energy consumption and resulting CO_2 emissions can be calculated based on the electricity consumption and by monitoring the percentage of valve opening. No costly additional equipment is required. Switch actuators with current measurement and intelligent visualization are standard in a KNX installation.
The endorsement was not long in coming. In the spring of 2011, the school was finally able to move into its renovated

Picture 1

Picture 2

classrooms. The energy consumption of individual classrooms and their CO_2 emissions are therefore now available just in time for the new school year.

Energy saving as subject matter

The physics teachers are particularly happy about this technology, which gives pupils a vivid picture of the intellectual world of energy saving. The new electronic boards on which the KNX visualization can be called up are the ideal complement. So-called energy weeks are therefore planned for the new school year. In the first place, it has to do with theory: electrical power and artificial light, sun protection using daylight, heat energy and room temperature, sunlight as solar gain in the winter and cooling shade compared to summer heat. This complex topic should awaken attention for energy problems in the face of climate change and achieve more sensitivity for energy consumption in buildings – not only for lessons but also in daily life.

Experience through competition

The topic of energy and buildings also lends itself for project work in science lessons. This deals with methods of energy saving which the project engineers can develop and represent themselves using the transparent KNX installation. The opportunity presented itself, for example, for two classes to compete against each other in an energy-saving contest. Automatic functions are decommissioned which then have to be controlled manually as efficiently as possible. Errors then quickly become apparent if the energy consumption is too high or if the room conditions are unbearable. Differences call for further thinking. The results over weeks and months are presented, evaluated and discussed on the electronic boards in the physics lab. Whether there will be winners and losers as in a football match or whether a sense of well-being and an optimum learning atmosphere sets the necessary energy usage at a healthy ratio, is the concern of the pupils who are taking part. The teachers will therefore not intervene in the project work so that energy awareness results from the pupil's own experiences.

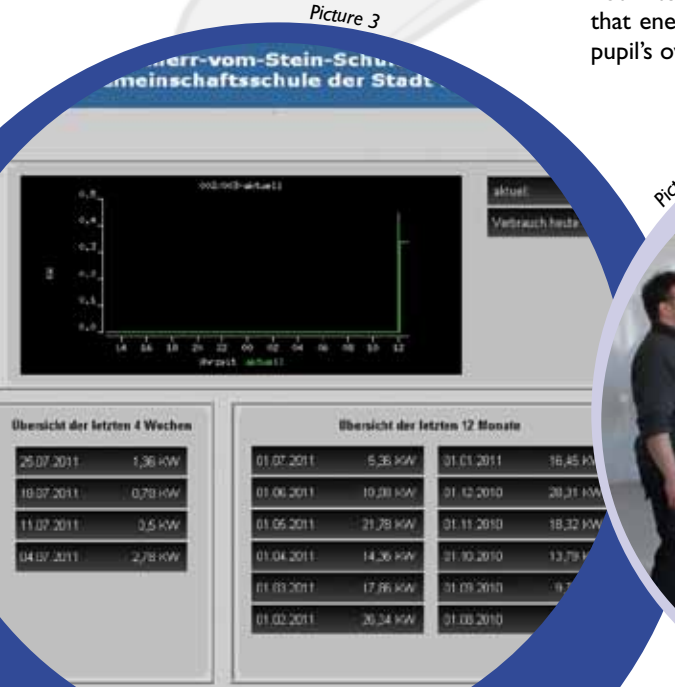
Picture1
In the Freiherr-vom-Stein school, KNX not only controls the building technology but also raises awareness of the school's energy consumption with consumption data.

Picture 2
Optimum light for teaching with the most efficient use of energy possible – the pupils are in control and learn to use energy and the resulting emissions within the framework of an energy project.

Picture 3
The electronic boards were used by the school administration Hubert (left) and the system integrator Dirk Beyer (right) to implement the energy-saving concept. The consumption data of the KNX visualization can thus be presented graphically in the lesson.

More information:
d.beyer@ing-beyer.de

Picture 3



Test of KNX Application Software – a requirement for the certification of a KNX product

Each KNX Device shall be able to communicate correctly with other devices in the bus system. An important step for this is the certification of the device at KNX Association.
Only certified device software guarantees that the device is KNX compatible. Before a certificate is granted, the application software shall fulfill the KNX interworking and functionality test. What is the process of such a test and what shall be taken into account by the manufacturer?

EITT (left screen) and ETS (right) are ready for testing

The test lab – where are KNX devices tested?

The tests are executed in test labs, which have been the subject of an accreditation by KNX Association. In this way it is ensured that tests are carried out under proper conditions and according to the ISO/IEC 17025 standard.

The requirements to be met – when can tests start?

The test can only start when a device has reached the series production stage and the VD file (for ETS3) and/or the knxprod file (for ETS4) has been registered at KNX Association. Interworking is tested, i.e. the correct sending and reception of group object values, as well as the functionality, i.e. the correct conversion of received telegrams and the set parameters.
Before a test can be planned, the data sheet has to be available, describing functions and parameters and listing the available group objects.

The test set-up – which equipment is required for the test?

The extent of the test set-up is determined by the function of the device. For sensors, measurement values may have to be manipulated. In the case of sun light sensor, a suitable light source has to be available. The focus of the interworking and functionality tests is however not on the quality and the measurement accuracy of the device, the prime objective is to test the behavior of the application software. It has proven its worth that the test lab and the manufacturer jointly elaborate the test set-up. In the end, the product is best known by the developer himself.

The EITT sequences – what needs to be tested for the product?

The requirements for the device are set in the EITT test sequences (EITT=KNX/EIB Interworking Test Tool). On the basis of these sequences, tests are to a large extent run automatically by the test software. It is therefore

Test setup for a weather sensor. The wind sensor can easily be influecend with ice spray.

Test location for verification of the device function and the interworking with the KNX bus.

necessary that test sequences cover various device functions and communication processes of all objects. EITT test sequences can either be supplied by the manufacturer or can be created by the test lab. Also in this case a good cooperation brings added value: when the manufacturer gives clear input, the KNX tester can rapidly create a working test sequence. Manufacturers that have products tested on a regular basis can have their staff members trained in the creation of EITT test sequences und can then supply these to the test lab. However, also test sequences delivered as input need to be checked for completeness by the KNX test lab.

The interworking and functionality test

During the actual tests, all the functions of the device are put through the paces by means of the EITT software. The use in the KNX system is simulated and the behavior of the test device is recorded. Are telegrams of the test device understood by other bus devices? Does the test device receive the telegrams addressed to it and are they correctly interpreted? The device shall behave in the very same way as set in the ETS and described in the data sheet.

If an error is detected by the test software, the test device must be improved by the manufacturer and the test needs to be repeated. The manufacturer can attend the tests.

If the test report confirms that the device functions as it should in the KNX system, the KNX Association will hand out the KNX certificate. The manufacturer receives an RCD file to upgrade the product database entry to "certified". In this way the integrator can recognize that the application program was positively tested.

EITT – Putting KNX Devices Through their Paces

EITT – Putting KNX Devices Through their Paces EITT is a special analysis tool for KNX devices and installations.It is primarily used by manufacturers and test laboratories for testing, trouble shooting and monitoring. The EITT supports tests through two COM interfaces at the same time. KNX telegrams are recorded online and can be analyzed via a multitude of filter criteria. Various trigger functions are available. In addition, the EITT can send telegram sequences for simulation and test purposes. States like ACK, NAK, BUSY or Flags are shown in the bus monitor.

www.knx.org/knx-tools/eitt/description

The KNX test lab of Elsner Elektronik

The company Elsner Elektronik from Gechingen has ben an accredited KNX test lab since January 2009. Elsner Elektronik produces KNX compatible devices itself; however, its test lab works independently and manufacturer neutral. In order to guarantee the confidential handling of customer requests, KNX test labs are carried out in a separate building. Elsner Elektronik values customer advice and offers a tailored made service package. In this way and through their input, the manufacturer can shape the test to be cost-effective or can – if desired – have all necessary steps performed by Elsner Elektronik.

One can get acquainted with the test lab during a visit or by making a non-binding enquiry.

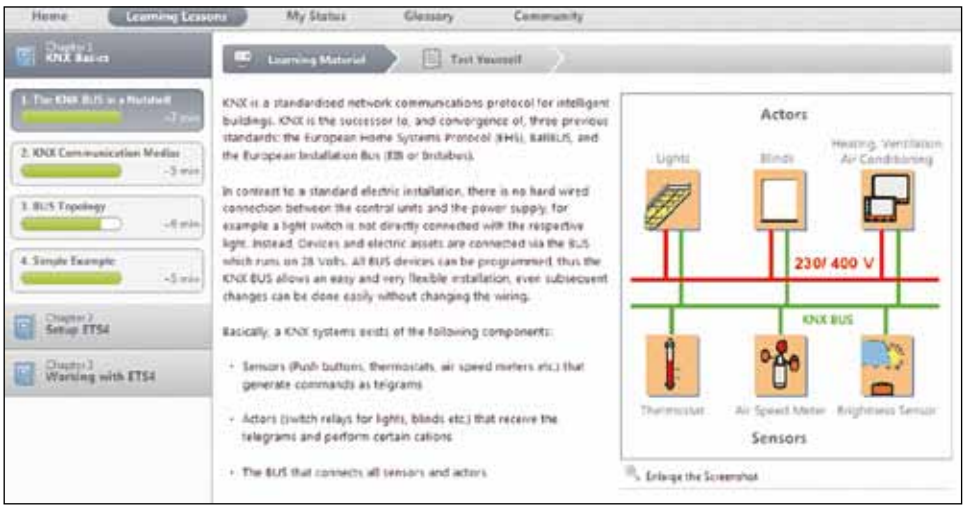
Contakt: *www.elsner-elektronik.de/knx-labor.html or +49 70 56 / 93 97 0.*

KNX ETS4 eLearning

The click to success

Building automation with KNX has a great future – it is a business opportunity not only for professionals such as system integrators but also for newcomers. The newly developed ETS4 eLearning tool from KNX can signify the first step along the path to success. Let's call him Knyx, the shrewd installer who wants to make more of his career. He dreams of programming a house full of technical functions for discerning customers. However many of his colleagues are probably wondering how you get into this promising KNX world. Knyx has taken the first step by discovering the new ETS4 eLearning tool in the online shop from www.knx.org.

EITT (left scree After registering in the KNX online shop, you can download eLearning free of charge n) and ETS (right) are ready for testing



The first lesson gives you basic knowledge about KNX

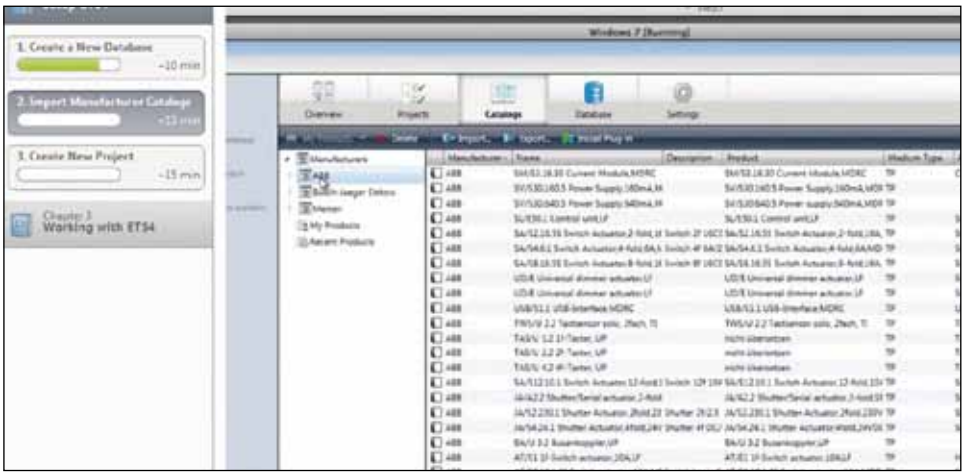
Newcomers welcome

With the introduction of the new Engineering Tool Software ETS4, several features for creating KNX projects were improved. The tool for home and building system technology should also motivate newcomers to jump on the bandwagon. A great deal of effort has therefore been invested in producing an appealing interface design and clear menu structure for ETS4. Compared to ETS3, more than 25 new functions have been integrated which makes the project design easily understandable and therefore simpler. Experienced system integrators profit from ETS4 as they can configure their projects quicker, more reliably and with sustained success using the new tool.

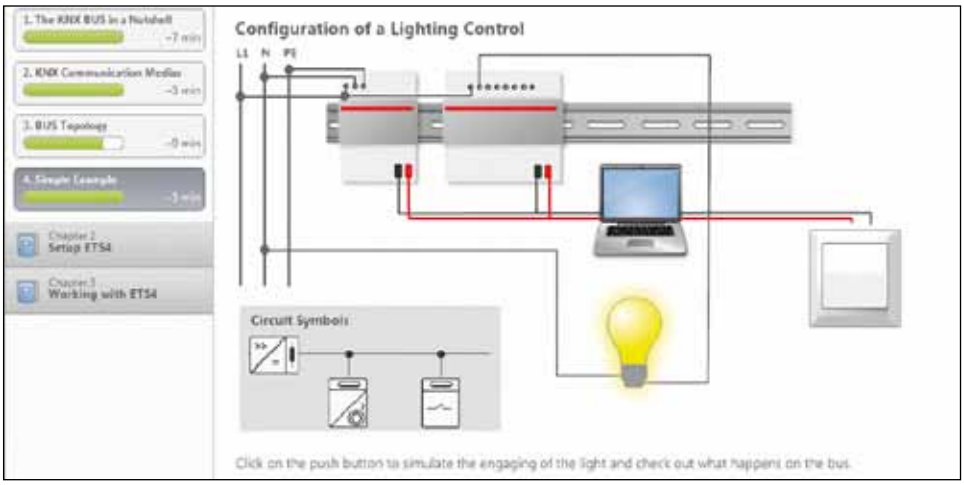
eLearning is fun

No dry theory here! "It's really relaxing" says Knyx as he works his way through the basic knowledge of bus technology. He learns that the bus and power supply systems are separated, actuators and sensors can communicate via different bus media, how a simple lighting circuit is configured etc. "Correct", says the self-test page after answering the test questions and Knyx thinks "This is really easy to understand".

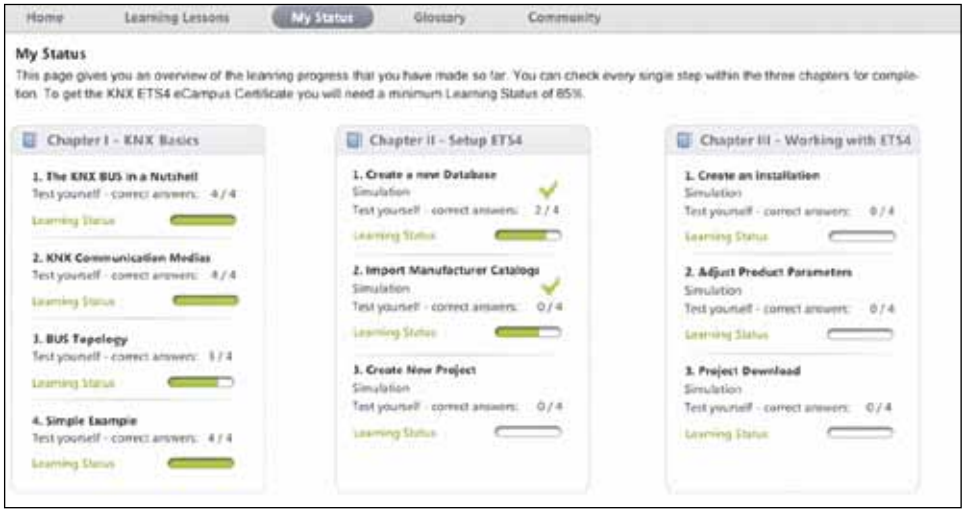
But now he needs to keep his ears and eyes open: the basic principles of the tool software are explained using the spoken word and with the mouse pointer on the ETS4 interface. Starting ETS4 is very easy as is the first step to creating a database – simulated exercises help you to deepen your knowledge. Finally the software of the KNX devices must be loaded. "Which



Interactive learning with ETS4, here showing device selection



Simulation of the physical structure and function of a KNX lighting control system



Remain motivated by testing yourself on your learning progress next image: Knyx programming at the PC

software from where?" The exercise confuses Knyx so he goes back to the theory again. That is the beauty of KNX ETS4 eLearning: you can work through step by step, test your knowledge after each lesson, repeat a step if you fail and delight in your learning progress. Knyx is now eager and impatient to carry out the next steps which involve simulated project design with ETS4.

Graduating with a certificate

Only a few, simple tasks lead to a sense of achievement: opening a new project, selecting KNX devices, inserting them in the building structure and linking functions via group addresses. This will appear familiar to Knyx as the sequence of operations corresponds in principle to those of conventional device installation and wiring. He will however quickly recognize how flexible the programmable bus technology is for versatile applications. Even unusual customer requirements can thus be fulfilled. But first he needs to learn about the parameterization of the device functions – the so-called finishing touches – so that the individual devices can grow into an integrated automation system. Finally the project software is loaded into the networked hardware and the system is put into operation – the project is then complete.

Those who achieve sufficient points during the self-test even receive a certificate as a printout – evidence for the boss, for customers and of course further professional KNX training.

Free of charge in the online shop

KNX ETS4 eLearning is the systematic implementation of the flyer "ETS4 for beginners". The training is primarily directed at newcomers who wish to gain an insight into building automation with KNX without having to spend time or money first. KNX ETS4 eLearning is based on an object-oriented learning management system which has been tried and tested all over the world. The two-level learning concept, consisting of the transfer of knowledge about ETS4 and practical online simulation exercises, was developed in consultation with leading KNX training facilities. From October 2011, it will be available in "English" and "German" with other languages also at a later stage. KNX ETS4 eLearning can be obtained free of charge after entering the registration data in the KNX online shop (www.knx.org).

New Members

DENMARK
Airmaster A/S

Airmaster A/S is a Danish company which offers decentralized heat recovery ventilation solutions for schools and institutions, offices and conference facilities. Since its establishment in 1991, the company has focused on decentralized heat recovery ventilation. The decentralized concept makes it possible to place the ventilation systems in only the rooms which need ventilation. Via building control the decentralized ventilation units can be directed centrally, which provides their customers with the unique advantages of having decentralized units together with central control.

Contact: *www.airmaster.dk*

SPAIN
Altra Corporacion Empresarial S.L.

Over a decade has gone by since Airzone-Altra Corporacion first detected that duct-based air-conditioning was suffering from major limitations: The lack of temperature control in each area reduced comfort whilst unnecessarily increasing energy costs. The response was a new concept in home climate control: zoning, a system that assures the ideal temperature in every room in the home. Since then, Altra Corporacion has researched and developed advanced climate-control systems to assure home comfort and savings. They have the technical and human resources to develop not only the Hardware and Software, but also the machinery required to produce the products and services that the market wants. Their R&D&i department also develops our own equipment for their manufacturing processes.

Contact: *www.altracorporacion.es*

GERMANY
Amber wireless GmbH

AMBER wireless GmbH, established in 1998, is a German electronics company that specializes in the design, manufacturing and marketing of compact short range radio modules and radio modems for rapid implementation of cable-free data links. They have become one of the leading suppliers for ISM/SRD radio modules and radio modems in Europe. AMBER wireless RF products are used in a variety of cable-free applications, for instance in logistics, automatic meter reading, sensor network, environmental monitoring, access control as well as home/building automation.

Contact: *www.amber-wireless.de*

UNITED ARAB EMIRATES
Ateïs Middle East FZCO

ATEIS Middle East is a manufacturing company and the regional subsidiary of ATEIS International S.A. based in Switzerland. Established in September 2006 in Dubai, ATEIS ME serves the Middle East and Indian markets. ATEIS ME offers a unique mix of life safety products and solutions including audio matrixes, controllers and processors; amplifiers; microphones and loudspeakers; intelligent acoustic solutions; fire alarm control panels; fire detection and alarm devices; emergency voice communication devices, home automation and guest room management systems. Their home automation and guest room management systems employ the KNX protocol to drive auxiliary functions such as AC control, lighting and shutter control, in addition to interfacing with other protocols. Their solutions include KNX-compatible touch panels from VITY Technology.

Contact: *www.ateis.ae*

GERMANY
Condev-Automation

Condev Automation provides services in product development for building automation and industrial controls. The innovative ideas of the customers are implemented from a concept to a production-ready product. Proprietary products are marketed as an OEM supplier for major manufacturers. One focus is the development of embedded systems as a HMI design or „black-box“ without display. The adaptation to the respective bus systems is done through the use of different modules. For special functions on your systems or other applications, microcontrollers are used. Firmware and circuit design, simulation, design, layout, design and prototyping are made in-house. Because of 15-years of experience with KNX product development, system and layer tests are also carried out parallel to development.

Contact: *www.condev-automation.de*

GERMANY

DGA - Gebäudeautomation Deutschland GmbH

DGA
Deutsche Gebäude Automation

The company DGA Gebäudeautomation Germany GmbH, based in Hennigsdorf near Berlin wants to line up in two areas on the KNX market. First of all with the DGA focus on standard applications such as noise, dimming and blind actuators. On the other hand DGA is active in heating, ventilation and air-conditioning, in addition to consulting services with the development of specialized applications for the commercial sector.

Contact: *www.dg-automation.com*

GERMANY

ELMOS Semiconductor AG

ELMOS

Elmos is a developer and producer of semiconductor based system solutions. In doing this, they always offer the one product to the customer that is just the right answer to his problems. Be it a chip tailored to his specific requirements, a standard product ready for use in a short amount of time, or a complete microsystem as a symbiosis of sensor, read-out electronics and special package. More than 500 successful products bear witness to a job well done. Ever since 1984 it has been their profession to come up with complex semiconductors which facilitate intelligent and cost-efficient solutions based on their robustness and diversity of functions. With the latest standard product „E981.03- KNX/EIB Transceiver" which comes in QFN32L7 package, they offer you a cost-efficient solution to physically linking up your TP1-application to the KNX bus.

Contact: *www.elmos.de*

SPAIN

ELSON Electronica S.A.

SMINN
innovative in electronics

Sminn provides to professionals electronic products and services for automation and access control for industrial, commercial and residential environments. It is a brand designed and made by Elson Electronica that relies on innovation and design as differential values of its offer. Their product portfolio is divided into five sectors: radio, access control, automation control panels, security and home automation. In KNX they have found a strategic partner that fits perfectly into their philosophy of making their user's everyday life easier. KNX lets them integrate products into a global level open protocol focused on communication between applications. In addition, its philosophy of providing simple answers with many advantages aligns perfectly with Sminn's philosophy.

Contact: *www.sminn.com*

FRANCE

Elster SAS Division CORONIS

coronis
an Elster Group company

Coronis is a leading designer and developer of wireless OEM solutions for applications and products that require both ultra-low power consumption and long-range connections. The company is the creator of Wavenis®, a technology platform that includes the optimized Wavenis RF transceiver and wireless communication protocol stack. Major markets for Coronis technology are smart metering, home comfort, alarms for protecting people and property, home healthcare, industrial automation, centralized building management, access control, cold chain management, as well as long-range UHF RFID applications for the identification, tracking, and locating people and objects. Based in France, with offices in the US and in Asia, Coronis has grown consistently since it was founded, now with a staff of 50 employees. In 2007, the Elster Group, the world's largest metering company, aquired Coronis.

Contact: *www.coronis.com*

SWITZERLAND
ER Systems SA

ER Systems SA was founded in 1998 by taking over the „Money_Systems“ from ascom autelca. The goal of the company was to become a leader on the electronic payment and the controlling systems in the Swiss market. The main competences were in engineering of electronical and software products. Since 2003, ER Systems SA refocused on RFID technology. With Liberty, ER Systems SA introduces a local positioning system (RTLS = Real Time Location System) for various applications in the Healthcare and Security market. This system allows hospitals, residences, army or the industries to optimize their processes, ensure the quality of service, ensure the security of employees and reduce their costs. At the end of 2006, RFID Invest AG integrated the company in a specialized RFID-technology group. ER Systems SA uses the synergies created to conquer the Swiss and European market with innovative solutions.

Contact: *www.ersystems.ch*

UNITED KINGDOM
Fineline

Fineline has been working in the entertainment, lighting and control industries for over 20 years, and has undertaken a variety of custom projects. Fineline is able to offer a bespoke hardware and software design service, facilitating the production of control modules to solve particular problems. Connectivity via the KNX bus allows accurate status monitoring and real-time control using an industry-standard architecture.

Contact: *www.fineline.uk.com*

GERMANY
FLXT GmbH

FLXT GmbH supplies with FLXT® high quality components a complete system for every application of water installations like in water supplying, industrial applications, heating and refrigerating systems and waste water. FLXT® components are:

- PEX-AL-PEX polyethylene five layer pipes & fittings, the latest technology and composing metal with polymer.
- PP polypropylene pipes (with and without aluminum foil) and fittings, for hot and cold water piping networks in residential and commercial buildings
- HT-PP polypropylene drainpipes and fittings, highly heat-stabilized

Now FLXT is planning to supply the customer with more benefits and services with BMS based on KNX Software ETS Manufacturer Tools. The partnership with KNX will allow FLXT a successful development.

Contact: *www.flxt.com*

GERMANY
GFR – Gesellschaft für Regelungstechnik und Energieeinsparung mbH

The name of GFR – Society of Automatic Control and Energy Saving mbH and the products of their brands and DIGICONTROL DIGIVISION stand for many years of innovative technology in the field of building automation as well as the building and energy management. For over 30 years they have cared about energy saving, the name says it all and their mission is more relevant today than ever. GFR offers customers comprehensive solutions for planning, automating, deploying and optimizing modern building systems, which include of course the integration of different disciplines in one building management (WEBVISION), such as KNX. The integration module ems4.KNX1E serves as a bidirectional gateway between automation systems DIGICONTROL EMS2 / ems4 and KNX.

Contact: *www.gfr.de*

THE NETHERLANDS
KNX1

KNX1 is supplier of the IP interface for Apple, Android and computer related visualization software.
The interface supports up to 15 connections simultaneously. It can also be used as an ETS programming interface. The interface is supported with multi-language ETS database and software. Check the website for more information.

Contact: *www.knxone.com*

AUSTRIA

LOYTEC Electronics GmbH

Founded in 1997, LOYTEC Electronics GmbH today ranks among the leading European providers of intelligent network infrastructure products for building automation. LOYTEC develops, manufactures and distributes to the world router solutions, embedded automation servers, DALI lighting controls, graphic user interfaces, touch panels and gateways. Primary focus is on networked solutions for buildings and real estate. Methods provided are remote access and notification, as well as functions for data acquisition (collection), information viewing and data storage. The LOYTEC system is based on a protocol independent approach for decentralized alarming, scheduling and trending. With the implementation of the KNX communication protocols, LOYTEC will be able to offer a comprehensive line of products that seamlessly integrate into all standardized systems such as KNX and BACnet networks.

Contact: *www.loytec.com*

USA

Lutron

Since 1961, Lutron has met and exceeded the highest standards of quality, making them the industry leader in light control. As an industry innovator, Lutron holds over 2,000 patents and manufactures over 15,000 products, including the invention of the first solid state dimmer and fluorescent dimming technology. Lutron is also the most recommended and consistently selected light control provider in the market due to exceptional reliability and customer support. Lutron is the only company that controls both daylight and electric light. They manufacture the equipment installed and are fully accountable for the system's performance and reliability. Lutron has the ability to connect directly to the KNX communication bus; offering installers the opportunity to link their technology to an even wider range of applications, for seamless integration in commercial or residential environments.

Contact: *www.lutron.com*

SOUTH KOREA

Mnextec Inc.

Mnextec Inc. was established in 2002. The home/building automation and hotel management system, especially the intelligent building system technology is their major industry, and they have built their own business field in this industry. They also working to expand this field. Mnextec is in business and technical alliance with various European companies, such as Merten, IPAS, HDL and Schneider electric etc. By friendly cooperation with those companies, they have successfully applied the KNX system in many projects like the Samsung Electronics Headquarter building, SK apartment and Shilla hotel in Korea.

Contact: *www.mnextec.com*

AUSTRALIA

mySmart CTI

mySmart CTI was founded in 2001 as a building automation system integrator. Since opening, the team has become Australia's leading integrator with more than 45 staff in five offices around the country. mySmart CTI provides energy management and reduction systems to commercial building projects regardless of the size and technology requirement, which include DALI and smart metering. mySmart CTI has developed „enGauge", a class leading building performance indicator that interfaces to controls and metering systems. The adoption of KNX as the intelligent controls platform will enable enGauge to interface with other system components and provide intelligent information to building tenants and guests.

Contact: *www.mysmartcti.com.au*

FRANCE

NanoSense

NanoSense offers solutions to manage air car parks ventilation, control the air renewal of low energy buildings, and detect the presence of toxic gases. NanoSense Air Quality probe sensors are based on solid state metal oxide sensors with lower consumption than regular NDIR technology and can completely withstand dust. NanoSense also includes gateway optional function to EnOcean world. As VOC are becoming a major health concern in low consumption air proof buildings, they are adding VOC to usual CO_2 monitoring. NanoSense has almost 20 years experience in using metal oxide gas sensors and has been involved in European cooperative programs using nanostructured metal oxide sensitive layer producing a highly efficient surface and improved characteristics. Such new sensors are much less expensive and robust than other technologies.

Contact: *www.nano-sense.com*

SPAIN

Nechi Ingenieria s.l.p.

Nechi Ingenieria is a Spanish engineering company with wide expert knowledge in building automation. Nechi is recognized for successful performance in four major areas:

- Classic and Value Engineering: developing projects of building design and facilities in the world of construction, building and civil works.
- Consulting: technical and legal support to customers, with personalized technical Cabinet
- Integration: integrating building control systems and visualization software. They supply, install and maintain facility services.
- Development: supported by their R&D division, they have their own products and solutions applicable in various areas including the area of building automation and energy management, geo-location and management of interactive marketing systems.
- Formative: technical training (KNX certified training center).

Contact: *www.nechiingenieria.com*

TURKEY

ORTEM Electronics Ltd.

ORTEM Electronic, Industry and Trade Company was established in the Tübitak-MAC Technology Development Region in May 1998. ORTEM is researching and making experimental development in engineering and technology. It works with world leading firms and follows the latest technology. The firm has knowledge and experience in the automotive subsidiary industry, communication and custom product development. ORTEM has started to develop management software for smart buildings.

Contact: *www.ortem.com.tr*

JAPAN

Panasonic Corporation

Panasonic Corporation is a worldwide leader in the development and manufacturing of electronic products for a wide range of consumers, businesses, and industrial needs. Based in Osaka, Japan, the company recorded consolidated net sales of 8.69 trillion yen (US$105.0 billion) for the year ending March 31, 2011. The company's shares are listed on the Tokyo, Osaka, Nagoya and New York (NYSE:PC) stock exchanges.

Contact: *www.panasonic.net*

AUSTRIA

PEAR Automation GmbH

PEAR Automation GmbH is a young and innovation-driven company that develops, manufactures and markets KNX components. With the best of their know-how in the area of KNX, PEAR Automation offers robust products that excel with their high quality and great innovative features. The development and production in Austria ensures a high level of quality. The product portfolio is mainly focused on rail mounted devices and system devices. Sophisticated products are the core of their corporate philosophy. The product design is based on ongoing customer feedback and market requirements. Based on technical and mercantile independence, the products are tailored dynamically and effectively to customer requirements. PEAR Automation has set the goal of making KNX accessible to anyone.

Contact: *www.pear-automation.at*

BELGIUM

Renson Ventilation NV

The company RENSON is already more than 100 years old and originally was an aluminum production factory. In the last decade, Renson has shifted more and more from a production facility to a knowledge company. Their fields of expertise are ventilation, sun shading, screens, architectural constructions and building environmental applications. Today, RENSON VENTILATION NV is still the main business unit and specializes in ventilation of environmental buildings and houses. They focus mainly on natural ventilation, but for 5 years they have also produced products for mechanical ventilation. Especially in the sector of mechanical ventilation they intend to introduce a new product line which will communicate with KNX, especially KNX-RF. This will be the first KNX application Renson will develop, but other opportunities may follow.

Contact: *www.renson.eu*

CHINA

Shenzhen Fanhai Sanjiang Electronics Co., Ltd.

深圳市泛海三江电子有限公司
SHENZHEN FANHAI SANJIANG ELECTRONICS CO., LTD.

Shenzhen Fanhai Sanjiang Electronics Co., Ltd., as a high-tech enterprise affiliated with China Oceanwide Holdings Group, is a pioneer as the professional manufacturer and solution provider for fire alarm systems, intelligent monitoring products, access control and building automation systems in China. Fanhai Sanjiang is active in the R&D, production, sales and after-sales service of intercom products, intelligent monitoring products and fire alarm products for buildings. Until they haven't yet produced or sold any KNX products. However, according to the company's development in the next few years, they will invest manpower and money in researching and developing KNX products and entering the intelligent smart home market in China.

Contact: *www.fhsjdz.com*

USA

Universal Remote Control, Inc. (URC)

URC
Control the Experience.

URC is the pioneer in control technology. Founded in 1991 and headquartered in Harrison, N.Y., URC has sold more than 80 million remote controls in the last ten years alone. A world leader in high-quality control design, engineering, manufacture and distribution, URC is widely regarded as a category innovator by consumers, subscription broadcast providers, retailers, custom installers and OEM partners. Their award-winning flagship line, the Complete Control™ series, offers premium automation solutions for homes and businesses, and for every purpose and every room. These products are designed with many advanced features, including IP-based network control, haptic feedback and large color touch-screen LCDs, and are intended for professional installation. URC is proud to be working with the KNX Association and providing a new level of control for the KNX market.

Contact: *www.universalremote.com*

New KNX Products

3E s.r.l

External KNX communication modules

3E is proud to announce the official release of its external KNX communication modules. 3E, a leading manufacturer of power and energy meters, now offers a complete solution for KNX connection: the module, housed in a single DIN case, can be connected to the meter via optical port. On the PC side, the application software provides graphic information as far as data logging facilities: the 3E specific know-how is devoted to offer easy-to-use, but rigorous, data acquisition, storage and data management. The fully standard KNX module will also be integrated in the incoming series of professional power meters, thus completing the well-known 3E series of instruments, also available with MID certification.

Contact: *www.3e-srl.com*

ABB Stotz-Kontakt GmbH

ABB i-bus KNX Switch Actuators

ABB offers a new series of 16/20 AX C-Load switch actuators with and without current detection. The new switch actuators are available with 2, 4, 8 or 12 outputs. In addition to the well-proven function options of all ABB switch actuators, the application program for the new C-load types offer additional copy, exchange and conversion functions. The use of a 6 mm terminal and a universal head screw makes connecting cables with large diameters easy. An auxiliary voltage supply is not required for device function. The device is supplied by the KNX bus voltage. After connection of the loads, the installation can be manually tested directly - without bus voltage.

Contact: *www.abb.de/knx*

ABB Stotz-Kontakt GmbH

ABB i-bus KNX Blind/Roller Shutter Actuators JRA/S

With the new blind/roller shutter actuators JRA/S from ABB, the requirements for a sustainable and energy efficient automatic sun protection control can be implemented in offices, residential and functional buildings. The new automatic travel detection, copy and exchange of parameter settings, overheat control and enhanced diagnostic messages assist the system integrator with realizing intelligent sun protection and temperature control in future-oriented and energy efficient buildings. The new actuators are also ideal for control of ventilation elements to reach a better room air quality via automatic ventilation.

Contact: *www.abb.de/knx*

Apricum d.o.o

Multi I/O 12 KNX Module

The Multi I/O KNX 12 module provides a complete automation solution in one device. It is the ideal basis for vertical integration and upgrades with KNX, for which specific requirements for switching capacity and sensors are provided: with its twelve floating input contacts and twelve switching outputs, as well as extensive configuration possibilities, the software can realize a superior switching performance with this module. Preselection determines whether the channels are configured separately, in groups of six or together. Functions like scene, block and switch are possible over central objects.

Contact: *www.apricum.com*

b.a.b-technologie GmbH

DUO DMX Gateway

The new KNX/DMX Gateway offers two independently controllable DMX outputs with 512 channels each. The device can be used as ceiling or DIN rail mounted device and is available in four different versions: as an extension for the eibPort, with a KNXnet/IP interface, with a KNX twisted pair connector or as a variant with an EnOcean radio interface. For the configuration and creation of scenes, professional DMX software is being used. The software offers a so-called "DMX Preview" which makes all settings immediately visible at the equipment. Transferring the configuration data happens by a network connection or with an SD-Card.

Contact: *www.bab-tec.de*

B.E.G. LUXOMAT

KNX Control Touch Screen Panel

The NEW multi-function Luxomat® KNX Control Touch Screen Panel offers up to 110 KNX-functions. It has a 5.7 inch graphic capable color screen. It can be set up easily and quickly using the ETS software directly, without the need for plug-ins. It has 64 easy to configure screens, with logical linking of up to 60 objects. It is available with four different color frames and four different background-designs which can be set up individually for the compact, multifunctional and as a hypervisual display.

Contact: *www.beg-luxomat.com*

B.E.G. LUXOMAT

KNX button interfaces

The new two channel and four channel KNX interface sensors from BEG are designed for installation into Ø 60 mm flush mount sockets. They have two or four inputs for floating button or switch contacts to trigger these KNX telegrams. The status indication can be shown by two LED's. The BEG interface sensor is labeled through a simple handling and an excellent parameter overview, which allows a quick and accurate installation process.

Contact: *www.beg-luxomat.com*

Busch-Jaeger Elektro GmbH

Push-Button Coupling Unit

The new push-button coupling unit forms the bridge between traditional electrical installations and KNX. Installed in the in-wall pattress box, it accepts the switch rockers of conventional systems like a conventional switching element. Switch rockers from all Busch-Jaeger switch ranges (except impuls and Allwetter 44®) can now be converted to KNX push buttons. 1fold and 2fold models for single and 2fold switch rockers are available. The KNX push buttons assembled in this way not only switch on or off but can also dim or show the status with an LED.

Contact: *www.busch-jaeger.com*

Cytech Technology Pte Ltd.

Comfort Control

The first version of the official Comfort iPhone app has been launched and is simple, easy to set up and to use. The free iPhone app can be downloaded from iTunes under "Comfort Control". Comprehensive guidelines for setting up and using the Comfort app can be accessed at http://comfortforums.com/forum96/2281.html. For this first version, the app offers functions covering keypad emulation, zone status display, home control menu and alarm events display. Comfort is recommended and fitted by a nationwide network of custom installers in the UK and Ireland.

Contact: *www.cytech.biz*

Bleu Comm' Azur EURL

ProKNX-bwc Gateway

iPads and iPhones are used more and more for visualization of KNX installations. This gateway allows together with the cascadable „bitwise" BC4X1 controller (5 IR, IP and RS232 interface for AV control) to use one common application for KNX and audio / video systems. Create your personalized user interface with a powerful, full-graphic editor! With one touch the home theater starts, lights are dimmed and shutters are closed. Select songs from your music library (Sonos, Squeeze, WMC…), include the pictures of your IP cams and unlock your house door – at an extremely low price / performance ratio.

Contact: *www.proknx.com*

Busch-Jaeger Elektro GmbH

Room Temperature Controller Commercial Sector

The new room temperature controller has been specially developed for public buildings and commercial properties. The temperature controller is equipped with an integrated bus coupler and thus offers all required functions in one single flush-mounted device. Anywhere local operation is not wanted, the room temperature controller measures the room temperature and uses it as the basis for controlling the actuators for heating and cooling. PI, PWM, two-point control and fan coil functions are all available.

Contact: *www.busch-jaeger.com*

easyMOBIZ mobile IT solutions GmbH

ayControl KNX-V2

ayControl is the professional KNX control for iPhone and iPad that already won a user experience award. The new version, supporting the latest iPhones and iPads, once more sets standards in usability, design, and efficient set-up time for KNX visualizations. Functions: KNX, IP cam and multimedia integration via IR or Squeezebox™, RGB color control and more. ayControl KNX is fast and intuitive. Neither servers nor dedicated hardware are required. Use this native iPhone / iPad app together with any standard KNX/IP router or KNX/IP interface. Free PC configuration software (with ETS import) is also available. Be more productive with ayControl KNX.

Contact: *www.ayControl.com/knx-v2*

easyMOBIZ mobile IT solutions GmbH

ayMonitor KNX HD

ayMonitor KNX is a free, simple and powerful mobile KNX diagnostic tool for iPhone, iPad and iPod touch. ayMonitor KNX now supports group address import from CSV files and it utilizes the full display resolution of current iPads. Analyze errors easily and solve problems quickly while moving around inside a KNX building (connected via Wi-Fi) or from remote. This free app can save you hours! Just download ayMonitor KNX for free from the Apple App Store onto your iPhone, iPod touch or iPad and immediately connect to your KNX system via a standard KNX/IP router or KNX/IP interface.

Contact: *www.ayControl.com/knx-v2*

Eelectron spa

PM10A01KNX

Eelectron offers active energy-meters for single-phase alternating current with either 1, 7 digits digital counters. They have 2 S0 output generating pulses for remote processing of energy active and reactive measurements for 2 tariff. KNX Interface included with the device. Features:

- Green backlighted LCD
- For direct connection 80 A
- Seven digits for energy values indication
- Accuracy class 1 for active energy
- Accuracy class 2 for reactive energy
- Operating range current for direct connection 80 A = 0.02 ... 80 A
- Standard versions designed to be combined with the communication module
- Energy register zero setting
- Energy register for import and export
- Instantaneous power (re)active display
- …

Contact: *www.eelectron.com*

Eibmarkt GmbH

New shutter/blind actuator 6-fold

From October 2011 EIBMARKT presents a new shutter/blind actuator 6-fold (N000303) with manual operation. In addition to the high stability and high quality casing and the sophisticated electronic system known from the 4/8-fold blind actuator with additional cut-off relay for parallel operation, this actuator disposes of comprehensive parameters for a diversity of applications and, of course, the 1-byte object for runtime and slat.

Contact: *wwww.eibmarkt.de*

Eelectron spa

PB80BxxKNX with PB40AxxCON HomePad

Eelectron enters the residential world with the eelecta® range, fully based on KNX. The range is composed of KNX HomePads and a touch panel. Available in seven colors (ceramic white, chromo, black matte & weave, ivory, gold and bronze or artwork's range), Eelecta's HomePads feature a central cross (red, white or black), which customizes the product with different finishes and multiform pad covers. The front has five LED status indicators freely configurable by ETS, one for each button channel plus the corner LED useful for night localization. The HomePad is available in models with four or eight channels, with or without temperature sensor to realize a room thermostat, with or without four rear free inputs to interface a slave version of the product (PB40AxxCON) or other conventional switches.

Contact: *www.eelectron.com*

Eibmarkt GmbH

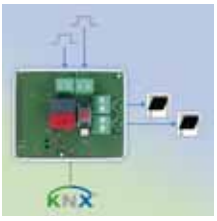
New switch actuator 12-fold

From October 2011 EIBMARKT presents a new switch actuator 12fold (N000202), where six channels provide the usual capacity of 16A in manual operation of the current 8-fold actuator and where there are an additional six channels for 8A without manual operation. This permits the installation of the MDRC casing in only six width units. That means in a standard current distribution board, 24 channels can be integrated on one DIN rail. Besides its known high stability and high quality casing and a sophisticated electronic system, the actuator offers comprehensive parameters for a diversity of applications.

Contact: *www.eibmarkt.de*

Elsner Elektronik GmbH

Door Control KNX A2-B2



The KNX A2-B2 door control module integrates door drives into the KNX bus system. The module has two outputs, either for two doors with single-surface operation or for one door with double-surface operation. The operating mode is defined in the ETS software (impulse, dead-man-control or defined open/close). The doors and also other bus participants can be controlled via the integrated binary inputs. The inputs are suitable for switches, closed contacts, dimmers, for control of shading systems and windows, for scene control and for transmission of temperature, brightness or eight bit values. The response time for standard, convenience or dead-man mode of manual push buttons can be set individually.

Contact: *www.elsner-elektronik.de*

Elsner Elektronik GmbH

Ventilation and temperature control with KNX AQS/TH-B-UP

The indoor sensor KNX AQS/TH-B-UP handles ventilation and separate room temperature control at the same time. The unit records the CO_2 content, temperature and absolute/relative humidity. In addition, it calculates the dew point and monitors the comfort range (DIN 1946). Depending on the CO_2 concentration and humidity measurements, the integrated ventilation controller issues a command to the bus to provide fresh/exhaust air. A temperature controller is designed for heating and cooling. Different target values may be set in the ETS for the day, night and „frost/heat protection". Furthermore, the temperature required for the room can be set directly on the unit using two buttons.

Contact: *www.elsner-elektronik.de*

empure

RTI + KNiX Port Gateway

Empure is pleased to present their free & bidirectional "RTI to KNX driver". This easy to set-up driver works with their low cost KNiX Port ("IP to KNX gateway") which will also work with the FREE iPhone and native iPad app. The driver is made for the RTI "integration designer". It supports everything from lighting, blind and HVAC control up to any trigger events (macros). So you can easily use the press of a KNX switch to execute a RTI macro to turn off the TVs, the stereo or anything you desire! The gateway is an object server which doesn't clutter the KNX bus with unnecessary traffic because it stores all the needed information within its own buffer.

Contact: *www.iknix.de*

Exor International, Inc.

DomiOP eBIS504

The DomiOP eBIS504 is a certified KNX control that combines state-of-the-art features and performance with an outstanding design. Easy to use, it is the ideal choice for home control functions, as for instance remote control and scene programming for more comfortable living and scheduler and timed actions. The eBIS504 features a 4.3" widescreen TFT display able to provide high resolution with 64K colors. The built-in dual 100Mb ethernet interface with ethernet switch enhances its communication capability. JMobile, Exor's mobile HMI platform for real-time monitoring and controlling of remote equipment, completes the innovative eBIS504.

Contact: *www.exorint.net*

Embedded Systems, SIA

KNX Logic Machine NEXT

Logic Machine NEXT is a scenario and logic engine which comes in a new slim 3U DIN design box, with added on-board support for Modbus, Enocean, DMX and others, offers new abilities like remote control, reprogramming and monitoring on the fly - with extremely lowering maintenance costs. LM comes with new peripherals on the board – binary IO and analogue IO. Apart from familiar features like IP router functionality with interactive telegram filtering and object logging, LM now has a new version of interface for touch devices. Yet LM offers an unbeatable functionality-price ratio.

Contact: *www.openrb.com*

empure

iKNiX iPad App + KNiX Port Gateway

Empure proudly presents the first affordable and easy to manage KNX control solution for iPhone, iPod touch & -NEW- iPad. Simply control your lights, blinds, heating and check your weather & status info with your fingertips – bi-directionally! No more fiddling on the iPhone needed, simply use their online portal www.iknix.de to configure your projects. Each project can have multiple user profiles, for instance, the owner can control the entire house and the guests can only control their rooms. You can easily manage and change anything you need – from everywhere! This free app works only in combination with their KNiX Port gateway.

Contact: *www.iknix.de*

Flexible & Specialist Cables

White Certified KNX Cable

Where KNX cabling is run internally and may be visible, FS Cables offer a certified KNX cable with a white jacket instead of the standard green. The cable is the same in construction as the standard green 2 x 2 x 0.8 mm but has a white LSHF sheath with yellow printing. As with the standard green cable, the FS Cables white KNX cable has been certified for use on a KNX system. The LSHF sheath material makes it ideal for installations where the evacuation could be slowed in the event of fire, as it emits minimal amounts of toxic fumes when burnt.

Contact: *www.fscables.com/knx*

GePro

KNX-TAB 12/2 LED

Since May 2011, the display and alarm panel KNX-TAB is 12 / 2 LED has been available. The hardware has been redesigned and now comes with improved electrical and mechanical properties. The LED-caps are closed on the front panel and implement with an additional seal. New is the switchable integrated buzzer. The two-color LED (red / green) lights up brighter during lower power consumption (approx. 27 mA at 29 V). Connection to the unthrottled output of a KNX power supply is possible. As the auxiliary voltage can be nine to 36 V, DC is used, which allows operation in combination with KNX alarm systems. The operation is also possible without auxiliary voltage.

Contact: *www.knx-taster.de*

Gira

Gira KNX CO_2 sensor

The CO_2 sensor measures the carbon dioxide concentration in the air. The values of the various sensors can be connected via logic gates. Values can be processed further as desired, for example, via the Gira HomeServer three or Gira FacilityServer. Through the temperature controller with a specified setpoint, the Gira KNX CO_2 sensor can also be used for the temperature control of rooms. The Gira KNX CO_2 sensor determines at which temperature the water contained in the air begins to condense on ceilings or walls. If the dewpoint is approached, the Gira KNX CO_2 sensor can control heating or ventilation and send out a message via the KNX system.

Contact: *www.gira.de*

Guangzhou Hedong Electronic Co.,Ltd (HDL)

Panel series

The series of HDL control panel include two types: two buttons and four buttons; each button can be locked-in, unlocked and bus triggered. The button assembles the control function of switch, dimming, shutter, flexible, scene, percentage, combination, and string. Scene dimming and combination controller is relative new. In addition, the brightness of the backlight is adjustable (0 % ...100 %), and it can be changed through the KNX bus. In the night mode, the brightness can be adjusted to the minimum level automatically, for energy savings and environmental protection. This series control panel supports the function of infrared acceptance, and the panel can also be remote controlled.

Contact: *www.hdlchina.com*

GePro

Display and alarm panel with key switch

The hardware of the key switch has been completely renewed and now offers improved electrical and mechanical properties. The LED on the front cover is closed and provided with a seal. The key switch is available in a variety of mechanical designs, including a special version IP67. The two-color LED (red / green) lights up brighter than the old version. Using the ETS program red, green, off, flashing, time limit and permanent ON are parameterized. The buzzer is controlled with a separate object. The volume cannot be changed by jumpers anymore (as previously).

Contact: *www.knx-taster.de*

Hager

tebis KNX Domovea

tebis KNX domovea is the new solution presented by Hager for intelligent, networked building visualization. It is an easy-to-use client software with server hardware (six mod) for installation on the distribution board. This modular equipment is fitted with RJ45 ethernet 10/100 sockets for connection to the internet or home network, as well as with a KNX terminal block and three USB connections. Through its extensive factory configuration, domovea easily connects the KNX bus system with the IP world. A tebis touch panel PC can act as the display and control unit or, if preferred, a commercial PC, notebook or even an iPhone app can be used.

Contact: *www.hager.de*

Guangzhou Hedong Electronic Co.,Ltd (HDL)

Sensor

The HDL KNX sensor -M/HS05.1 includes four independent logic blocks and one combined logic block. Each logic block is combined with the condition of motion sense, brightness, temperature, external condition and two dry contacts. In real applications, choose requested functions to combine the logic for AND or OR. According to the controlled targets, switch, absolute dimming, shutter, alarm, percentage, sequence, scene, string(14 bytes) can be used as the control function. Open-delay and close-delay are both available for each of the functions. Meanwhile, the sensor can be configured as the master and slave mode; it can report the current status of every condition.

Contact: *www.hdlchina.com*

Intesis Software SL

New version of IntesisBox® DK-RC-KNX-1 for Daikin SKY & VRV

Intesis Software S.L. introduces the new version of the IntesisBox® DK-RC-KNX-1 gateway that includes, as the main new feature, the possibility to be used as master remote controller. Now it's possible to connect directly to the Daikin SKY and VRV compatible indoor units, with or without using their remote controllers. Also this version is provided with new extended functionality, going from 50 to 83 communication objects, and stressing the separation of the control and status objects, and the use of KNX standard data points.

Contact: *www.intesis.com*

Jung

KNX CO_2 Multi sensor

Whenever there are a large number of people in a closed room, the CO_2 content in the air can reach critical levels and affect both their ability to concentrate and their performance. The new JUNG CO_2 sensor measures the carbon dioxide content, the relative humidity and the temperature inside. If the set limit values are exceeded, it can automatically trigger window openers or the ventilation system and ensures that the air in the room has the optimum quality for concentrated work and well-being.

Contact: *www.jung.de*

LOYTEC electronics GmbH

KNX Interface LKNX-300

LOYTEC's new interface module LKNX-300 provides in combination with various other LOYTEC products seamless connectivity of standardized bus systems via KNX TP1 and KNXnet/IP to the KNX world. Connectivity to several systems is supported. For mere gateway functionality, LKNX-300 is connected to the universal gateway LGATE-950, which supports connectivity to even multiple bus systems simultaneously. Using the LKNX-300 together with the freely programmable L-INX automation servers, KNX connectivity becomes available at automation level for HVAC applications. LKNX-300 can also be combined with the new L-ROC room automation system by LOYTEC.

Contact: *www.loytec.com*

Intesis Software SL

New IntesisBox® PA-AC-KNX-1i gateway for the Panasonic AC Etherea Line

Intesis Software S.L. introduces the new IntesisBox® PA-AC-KNX-1i gateway for the Panasonic AC Etherea Line. This gateway features four binary inputs as a new and important hardware improvement. These binary inputs have the possibility to be parameterized and configured in several ways through ETS. The IntesisBox® PA-AC-KNX-1i has full control of the Panasonic AC Etherea indoor units, and is provided with new extended functionality, stressing the separation of the control and status objects, the use of KNX standard datapoints, and the possibility to perform several actions depending on the occupancy of a defined area, or the status of a window contact.

Contact: *www.intesis.com*

Jung

KNX Signal panel

Ideal for use in supermarkets, shops and offices: the KNX control panel in an aluminum housing with a high-quality glass front regulates switching, dimming, blind control and scene functions via 24 independent capacitive sensor buttons. Color LEDs on the control sections signal the different system states of the KNX installation dependent on the limit values. Removable labeling strips can be used for an optimal assignment of the functions.

Contact: *www.jung.de*

Lutron Electronics Co., Inc.

GRAFIK Eye® QS

Lutron's powerful, flexible and expandable GRAFIK Eye® QS Wireless system has the ability to connect directly to the KNX bus; offering installers the opportunity to link their technology to an even wider range of applications. The system not only allows users to adjust the lights, the GRAFIK Eye® QS Wireless can also be integrated into a wide range of Lutron wireless sensors, blinds and controls to expand the system's capabilities. With the ability to assign controls directly from the ETS Software and adapt the system to suit user requirements from the front panel, with no need for re-commissioning, the system offers installers the best in flexible control for both daylight and electric light.

Contact: *www.lutron.com*

MDT Technologies GmbH

AMS-0816.01

The new MDT actuator can switch eight loads. All outputs have status lights and can be switched manually by push buttons. For easy programming ETS3/4 is used. The actors come with wide applications. The actual load power and the sum of all channels can be sent as ampere or kWh to the bus, and a threshold limit or load error and an overload can be used. All channels have an operating hour meter implemented, which can be used for an end of life or service warning. The MDT actors are used for 16A with high C-load 100uF (AMS) or 200uF (AMI). Both actors are also available as 4-channel version.

Contact: *www.mdt.automation.com*

Nechi Ingenieria s.l.p.

InVendi BMS 3.0

InVendi BMS 3.0 is a new version of the visualization and control software of the Nechi Group. This version offers innovations such as access from mobile devices like iPhone, iPad, Android, PDA and the integration of OPC communication to facilitate the integration of KNX and third-part devices. InVendi BMS is capable of communicating with all devices in the area of building automation, allowing local and remote control. InVendi BMS is available in several packages: Web, Panel, Mobile, Retail, Panel ITE-Verify.

Contact: *www.nechiingenieria.com*

NETxAutomation Software GmbH

NETxLAB® KNoX

With this new and innovative software solution of NETxAutomation, you are now able to control your KNX project on the modern and popular operating system Android™. This new system supports all KNX NETIP protocols. The software does not need any additional server. It controls your KNX installation completely independently. The system offers you highest freedom of design, and of course the essential editor is available for free. Design your project according to your preferences completely comfortably by using the drag & drop feature, included graphical libraries and the convenient button editor on a PC. After that, you can export your project by a few clicks on the Android™ device.

Contact: *www.netxautomation.com*

MDT Technologies GmbH

SCN-LK001.01

MDT now offers a 2TE Line coupler to connect two KNX lines to each other with galvanic isolation. The unit can be used as a line coupler, area coupler or repeater. By using it as line or area coupler, you can choose which telegrams are transferred or blocked. This function reduces the busload. The unit will be available in Q4/2011.

Contact: *www.mdt.automation.com*

Nechi Ingenieria s.l.p.

InVendi Panel ITE-Verify

InVendi Panel ITE-Verify is a visualization and control system of temperature and humidity values from the Nechi Group.
Benefits:

- High flexibility and scalability.
- Solution based on KNX standard protocol.
- All components are distributed completely programmed.
- Fully customizable display format.
- Compatible with InVendi BMS without additional equipment.

InVendi Panel ITE-Verify is the ideal solution to incorporate the company's corporate image in the control panel.

Contact: *www.nechiingenieria.com*

preussen automation

New KNX dimmer family

preussen automation introduces a new KNX dimmer family. The dimmer KNX-Series provides the convenience of switching and dimming different lights. Dimmers are available in four versions with one, two, four or six channels. With the KNX-phase dimmers dimME product range, you can easily control up to six independent light zones and ten scenes. The maximum total load for all products of the dimmer family is six ampere. The bus connection is established through a KNX terminal, the device can be installed on a standard 35 mm mounting rail.

Conctact: *www.preussen-automation.de*

Radiocrafts AS

KNX RF module RC1180-KNX2

The new RC1180-KNX2 from Radiocrafts is the world's first RF module supporting KNX Multi, which improves RF redundancy and achieves a better radio link, targeting the home and building automation market. The KNX RF Multi solution is switching between five different radio channels and enables devices to be in a non-permanent receiving mode, providing more reliability and efficiency in power consumption. Fast acknowledgement and re-transmitter features are included. The module operates in the 868 MHz band and is a surface-mounted, high performance transceiver module measuring only 12.7 x 25.4 x 3.3 mm for easy integration into sensors or actuators.

Contact: *www.radiocrafts.com*

Schneider Electric

KNX flush-mounted blind and heating actuator with 3 inputs

This new flush-mounted actuator enables space-saving retrofitting in two neighboring size 60 switch boxes (potential separation), e.g. for saving energy in different types of buildings. Floating window contacts or push-buttons can be connected with the active SELV inputs; basic functions can already be operated already without ETS due to factory programming. The actuator is part of a new family of six 1-gang actuators with integrated inputs. Loads are connected via prefabricated 20 cm long cores, the inputs and the KNX are connected via a six-core cable with shared sheath. The input cables may be max. 5 m long.

Contact: *www.schneider.electric.com*

Siemens AG

TPUART2

TPUART2 is the next generation of the widespread TPUART transceiver. It is digitally compatible with its predecessor so that communication stacks and drivers can be used without modification. It offers enhanced features including efficient stabilized 3.3V and 5V power supply with 30mA maximum current (50mA when 20V not used), switchable 20V power supply with limiting function and a smaller QFN36X36 package. This module completes the extensive range of Siemens KNX components (consisting of transceivers, processors as well as the M13x series bus interface modules) available for KNX manufacturers.

Contact: *www.siemens.com/gamma*

Schneider Electric

KNX CO_2, surface-mounted humidity and temperature sensor

This new sensor combines the measurement of carbon dioxide, temperature and relative humidity. As CO_2 levels which are too high are a reliable indication of poor ambient air, these levels can be used to effectively monitor the air quality - e.g. in offices/conference rooms, schools/kindergartens, restaurants and in passive or low-energy houses. Buildings and people can be protected just as reliably against the effects of humidity levels which are too low or too high. Three separate limit values are available for CO_2 and humidity and a limit value is also available for temperature. The CO_2 thresholds can be set within a range of 500 - 2500 ppm.

Contact: *www.schneider.electric.com*

Siemens AG

Presence / motion detector UP 258/Ex1

With the new presence and motion detectors it is possible to control lighting systems in office and commercial buildings according to demand – optionally also with constant light level control. The passive infrared detectors with swiveling sensor head under the designer cap are suitable for ceiling mounting, either flush or in a surface-mounting enclosure. Both versions have an integrated infrared receiver for remote control using infrared (IR). Calibration is performed with ETS or optionally by IR remote control. The sensing range of the detectors is 360° horizontally and approx. 100° vertically.

Contact: *www.siemens.com/gamma*

Siemens Schweiz AG

Communicating room thermostats for HVAC applications

With RDG100KN, RDG400KN, RDF301, and RDU340 Siemens launches a new generation of communicating KNX room thermostats that excel in high energy efficiency and versatility. The choice connection facilities enable the products to be used on a wide variety of applications – from fan coil units to variable air volume control, chilled ceilings, and radiator heating systems. The thermostats also offer ease of operation, and installation, as well as integration into HVAC control systems like Siemens' Synco.

Contact: *www.siemens.com/hvac-td*

Tapko Technologies GmbH

KAIphys EVAL

The hardware solution KAIphys revolutionized the hardware connection to the KNX bus. The KAIphys evaluation kit allows simple and easy testing of KAIphys' high performance and characteristics. The evaluation kit is comprised of not only the hardware, but also detailed documentation and application examples, as well as the complete communication software KAIstack. This combination, KAIphys and KAIstack as a basis for complete KNX devices, allows remarkably cost effective and flexible KNX solutions, to be realized without great ado. KAIphys – the hardware component of the KAI (KNX Advanced Interface) technology platform for KNX enabled bus devices.

Contact: *www.tapko.de*

Theben AG

DALI Gateway KNX for intelligent light management

The interface module from Theben makes it possible to integrate DALI in the KNX building management system. 16 lighting groups can be connected and addressed with a total of 64 electronic DALI devices, e.g. electronic ballasts (EBs), transformers, LED converters, etc. Group-oriented KNX control is exclusively achieved via up to 16 lighting groups. 14 lighting scenes can be selected via 8-bit or 1-bit scene telegrams. All connected DALI participants can be controlled or requested in broadcast mode. Information on lamps or EB errors are available on with KNX for each lighting group or DALI participants. Manual switching of all DALI participants is possible via the test button on the device.

Contact: *www.theben.de*

Theben HTS AG

PresenceLight 180 KNX

The ThebenHTS PresenceLight 180 KNX Presence Detector is designed for wall mounting. It automatically controls lighting in reception areas, cellars, corridors, garages and wet zones thanks to the IP 54 protection rating. With a detection span of 16 m, the 180° detection area is up to 100 m². The KNX PresenceLight 180 fully meets the requirements for targeted, energy-efficient lighting and air conditioning. It supports the following functions: switching two light channels or constant light control with standby and scene numbers, two presence channels for the control of external systems such as HVAC. Parameters can be adjusted via bus object. Manual operation is possible via remote control.

Contact: *www.theben-hts.ch*

Tapko Technologies GmbH

KIMaip Evaluation Board

For testing the KIMaip Module the new and extremely advanced evaluation board offers several functions within a minimum amount of space: an application controller for testing the KIMaip connection with the external master, push button and two LEDs emulating one input and two outputs, a galvanically isolated USB-interface to connect a PC with hyperterminal. The application controller contains a demo software, emulating inputs and outputs and translating the telegrams from the I²C-interface into an ASCII-based protocol. A brand new databank entry is also available for this demo. Get going!

Contact: *www.tapko.de*

Theben AG

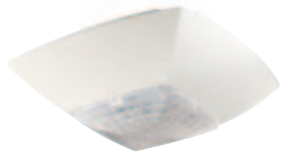
Theben weather station

Fully-automatic solar protection control is achieved using the Meteodata 140 GPS KNX weather station. The flow sensor detects both crosswinds and upwinds. Three integrated light sensors are protected from getting dirty. Blind control is achieved via automatic calculation of the sun's position based on data received via GPS. Optimum slat adjustment enables azimuth and elevation values. The rain sensor and external temperature are designed to avoid damage to blinds and awnings. The transparent housing is suitable for white and coloured walls. The weather station can be set up quickly thanks to factory preset solar protection channels.

Contact: *www.theben.de*

Theben HTS AG

PresenceLight 360 KNX



The PresenceLight 360 KNX presence detector is a versatile device, which means that a wide range of locations such as homes, offices, classrooms, storerooms or wet zones can be provided with energy-saving lighting control. The detection area, originally developed by can cover up to 64 m². The PresenceLight 360 KNX's sensitive detection capability will fulfill all the requirements of targeted, energy-efficient lighting and climate control. It supports the following functions: switching two light channels or constant light control with standby and scene numbers, two presence channels for the control of external systems such as HVAC. Parameters can be adjusted via the bus object.

Contact: *www.theben-hts.ch*

Vestamatic GmbH

MC KNX 9

The new nine channel motor control of Vestamatic moves comfortably and nine 230VAC motors with two end switches accurately. The motor control encompasses among others the following automatic runtime detection, 9/18 binary inputs for standard/ KNX switches, test button for implementation. The configuration is possible with ETS3.

Contact: *www.vestamatic.com*

Vimar SpA

new KNX dual-zone thermostat

The new KNX dual-zone thermostat is the ideal product for climate control in hotel rooms where it is also necessary to regulate the temperature of the adjoining bathroom. By calculating the set point, averaging the values measured by the external and internal probes, the new Vimar device can even be used in large spaces characterized by significant temperature gradients. Aesthetically coordinated with the design of the Eikon, Idea and Plana series, the dual-zone thermostat can also display up to eight additional temperatures measured by KNX probes or thermostats sharing the same bus.

Contact: *www.vimar.it*

Weinzierl Engineering GmbH

KNX RF/TP Coupler 670

KNX-RF (radio frequency) is the wireless communication within the KNX Standard. The KNX RF/TP Coupler 670 connects KNX wireless components with the KNX bus (twisted pair). The coupler is bidirectional and has 24 channels. The bus-side is configured with the ETS as an end device with communication objects; the RF devices are linked locally using Easy Push Button Mode. An LCD display shows the current configuration of the channels. The device is powered by the bus.

Contact: *www.weinzierl.de*

Vestamatic GmbH

KNX Solar Centre

KNX Solar Centre is the new energy efficient sun shading controller with integrated sensors and line coupler in one unit. The central controls allows the movement of up to eight facades or groups of sun protection with different shading programs, individual failure detection and up to three security objects per façade/ group. Wind, wind direction, lux, temperature, rain/ frost values are exactly measured in the unit with ultrasound. External sensors can also be included. Configuration possible from ETS3.

Contact: *www.vestamatic.com*

Weinzierl Engineering GmbH

KNX Tiny Serial 810

The KNX Tiny Serial Interface 810 offers a simple connection to the KNX Bus Twisted Pair including galvanic isolation. The connection is via UART (3 - 5V). A variant with USB is available as well. The communication is based on a modified TP-UART protocol without real-time requirements to the host. The Tiny Serial Interface is ideally suited for connecting KNX devices running Linux, Windows CE and Android, among others. A cross platform SDK is also available to integrate Tiny Serial into your application.

Contact: *www.weinzierl.de*

WindowMaster A/S

NV Comfort™ with control of sun screening products

The NV Comfort™ - a KNX controller for natural ventilation - now with unique, energy saving sun screening algorithm for sun screening control. By automatic control of roof and façade windows and sun screening products, the NV Comfort™ ensures an optimal indoor climate. The opening/closing of windows and control of sun screening products is based on input from KNX sensors (temperature, CO_2, RH and Lux) and weather station (rain, wind speed and temperature). Configuration of settings/user preferences is done on the control unit's 7" WVGA touch screen. NV Comfort™ can also send signals to KNX heating actuators, hybrid ventilation, lighting etc.

Contact: *www.windowmaster.com*

Woertz AG

New Woertz ecobus combi flat cable

The new Woertz ecobus combi flat cable 5G2.5 mm² + 2 x 1.5 mm² looks like its predecessor: it comprises a power current part and a parallel drawn bus part with special shielding which are molded in a single cable sheath. The bus lines safely offer an interference-free transmission of KNX signals in the whole installation. The corresponding new boxes IP68 are simply pushed on the smooth surface of the flat cable and connected. For the first time, KNX bus systems may now be used under more stringent conditions. The asymmetric profile of the cable prevents incorrect mounting. The cable is available in PVC and halogen-free FR/LSOH version.

Contact: *www.woertz.ch*

Zennio Avance y Tecnología s.l.

Lumento

LUMENTO is a low voltage (12 – 24 V DC) LED dimming controller by Zennio which comes in two variations, the X3 and the X4, for the control of three channels (RBG) or four channels (RGBW) respectively. The channel dimming is achieved by means of varying the voltage using PWM, with a 2.5 amp current limit per channel. The low profile enclosure allows the installation of the device close to the LED load, and screw terminals ensure that wiring up is effortless. A powerful application program is provided to configure LUMENTO's impressive functionality; light dimming, scenes, sequences, color selection, timers, test mode, etc.

Contact: *www.zennio.com*

Woertz AG

IP 68 protected Woertz installation systems

Just one click! The new waterproof boxes may be installed on the smooth surface of the Woertz ecobus combi flat cable 5G2.5 mm² + 2 x1.5 mm² and contacted in a very short time. Secure and quick mounting without any tool! Thanks to the patented piercing technology; all the leads are contacted at the same time. The junction box used in combination with flat cable with smooth surface has led to an IP68 protected system. The box is well dimensioned and is also provided with a power current part and a bus part. The high protection degree now enables KNX technology to also be applied under more stringent conditions.

Contact: *www.woertz.ch*

Zennio Avance y Tecnología s.l.

MAXinBOX16

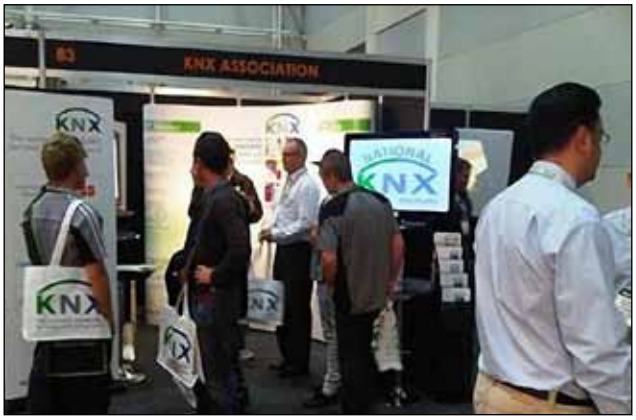
MAXinBOX16 is a 16 output multifunction actuator in a high quality eight DIN rail unit enclosure that can address the most demanding of projects. MAXinBOX16 outputs, each 16A type A can support capacitive loads up to 140 uF, and may be configured individually (up to 16) or as shutters/blinds channels (up to eight). Extra functionality is provided by the inclusion of a powerful logic module. LEDs indicate the state and buttons allow the manual control of each output. No external power supply is required and no program download is necessary to test the device during installation. An incredibly versatile device, likely to become essential to the KNX integrator!

Contact: *www.zennio.com*

National Groups

Successful participation of KNX Australia at CEDIA Expo 2011

The Expo held at Darling Harbour May 11 - 13, was a huge success and helped KNX National Group Ltd promote KNX within Australia as the worldwide Standard for home and building control.
During the expo, the current Chairman of the KNX National Group Ltd - Mr Ian Richardson - conducted a number of presentations in the Future Technologies Area. The presentation on "The Future of Home and Building Automation Comes to Australia" peaked a lot of interest, as Ian explained to the audience what KNX is and the benefits of using an open standard.

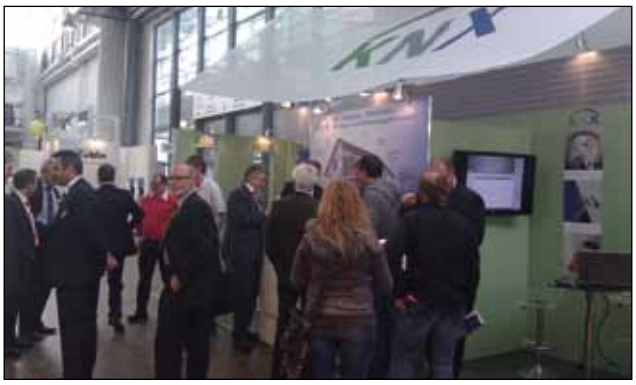


Visitors at the KNX booth.

Contact: *www.knx.org.au*

KNX Austria at the fair "Power-Days"

Networking with KNX belonged to the central topics of the "Power Days 2011". Nearly all members of KNX -Austria were present with their own booth as well as at the booth of KNX. The latter was presented to the public for the first time. In the foreground were the central topics security, economization and comfort. Furthermore, ETS4 was presented by an Austrian training center. At the press conference on the first day of the fair, the news of the Austrian market, for example the new Facebook entry or the created press entrance were presented to the journalists. The KNX Austria-Award was awarded to the best KNX projects in home and building automation at the "Power Days 2011". The winner was the firm ESL Elektro whose project united different producers and other working areas.



Visitors lively at the booth of KNX

Contact: *www.knx-austria.at*

Spring 2011 of KNX Baltics

KNX Baltics continues promoting the KNX standard. In March, KNX Baltics participated at "Maja I 2011", the most important Latvian building exhibition for professionals, designers, architects, investors as well as municipal and government organizations. This Latvian exhibition attracted more than 48,000 visitors.
Later on in April, KNX Baltics participated in two events, with stands built by KNX partners in Lithuania and Estonia. During these trade shows, the local installers and integrators expressed a lot of interest in becoming KNX partners. In parallel to these events, several seminars were held for designers and architects, installers and integrators from the Baltic countries. The trend is set and KNX Baltic will follow up with more events, seminars and future agreements.

KNX Baltics booth at the trade show

Contact: *www.knxbaltics.eu*

First time at Batibouw and a big success

In February, KNX Belgium participated for the first time at the Batibouw fair, the biggest Belgian fair dedicated to the building trade (main sectors covered are: interior construction, building technology and machinery). This fair mainly focuses on end consumers, but focuses solely on professionals during the first two days. In total, there were around 319,000 visitors and 1000 companies exhibiting this year. KNX Belgium exhibited together with the KNX Professionals Belgium, on a 120 square meter booth, to show several KNX products and active applications on a total of 16 panels. The fair was considered a great success by all members of KNX Belgium. Therefore, it has already decided to be present again next year.

KNX Belgium booth at the trade show

Contact: *info@knx.be*

KNX at Guangzhou fair

In the beginning of June, at the invitation of the organizer, Messe Frankfurt, KNX was able to present its current activities at the 2011 Electrical Building Technology and International Lighting Exhibition in Guangzhou, China. During three consecutive days, Mr Joost Demarest gave presentations in the Agora Forum situated on the Pearl Promenade of the fair. He highlighted the advantages of KNX in the world of home and building control. After the session on the first day, his presentation was followed by contributions made by the KNX China Board members, as well as a delegate of the KNX China Secretariat, i.e. Institute Technology and Economy Institute. The Hall 6.1 of the Electrical Building Technology was entirely devoted to home and building control, with quite a number of international and local Chinese KNX members present.

Big interested during all KNX presentations at Guangzhou trade show

Contact: *info@knxchina.org*

KNX Croatia Fairs 2011

During 2011, KNX Croatia participated in several events, such as the so-called "Job Fair" in Zagreb, "Energy Management in Cultural Heritage" an international conference in Dubrovnik and the "Natura Dom" fair in Poreč. The main aim for participating was to present and introduce KNX technology to the market. Together with their participation at the fairs, KNX Croatia took advantage of the event to give a presentation on the KNX technology, with Mr Renato Krikšić as speaker. He introduced the KNX technology to the audience. All these projects were planned by the KNX Training Centre, which opened its doors on the occasion of the 20th anniversary of KNX in October 2010, in Zagreb. KNX Croatia will meet again in order to plan the future activities in the country.

KNX presentation in Croatia

Contact: *www.knx.hr*

The Electrical Constructor and Young Electrical Entrepreneur of the year in Finland

In April 2011, STUL, the Electrical Constractors´Association of Finland organized their annual award, covering the best electrical contractor of the country. This year, the Electrical Contractors Award was given to a company which bases it work on the KNX technology: Sähkö-Haikonen Oy due to its work in the electrical sector and its contributions during 50 years of effort. For example, the Martha Restaurant is a KNX representative project from this company. In parallel, Atte Jokitaloa was also nominated the best Entrepreneur of the year, due to his effort since founding the company Älysähkö Finland Oy in 2008. This company also bases its works on KNX technology.

Mr John Stigzelius congratulates the young electrical entrepreneur of the year.

Contact: *www.knx.fi*

KNX France at ENEO trade show 2011 (Eurexpo - Lyon)

February 15 - 18 KNX France participated at the show ENEO / ENR, which was held in Lyon Eurexpo at the space REXEL. More than 100 visitors were welcomed on the stand of KNX France. The office was assured by the members for the duration of the show. The ETS 4 was shown by using the presentation of functions and products, as well as a workshop which took place in Paris on the April 1.

Contact: *www.knx.fr*

Portable workstation at the ENEO trade show

KNX Partner on online-card

KNX Germany presents at www.knx.de its new supply source database. German KNX partners have the possibility here to enter their address for free. Their company will appear then in form of a KNX flag on the map of Germany. Interested builders looking for a professional firm offering home and building technology will find a competent KNX partner in their surrounding this way just by clicking. KNX Germany supports once more the marketing of numerous firms and system integrators that cooperate with KNX with this free offer. German KNX training centers will be found on a further map in the near future.

Contact: *www.knx.de*

At www.knx.de interested builders will be able to find a KNX partner in their surrounding area just by clicking.

KNX Hungary at Renexpo® and Intelligent Building Conferences

In May, KNX Hungary participated at two different events: the 5th RENEXPO® Central Europe international trade fair and the Conference for Renewable Energy and Energy Efficiency in Budapest.
Taking advantage of their presence, the association had a presentation on smart metering, as well as highlighting the benefits of smart metering with KNX. Besides these two extraordinary events, KNX Hungary also had a presentation, which focused on energy efficiency with KNX, at the Intelligent Building Conference Budapest, where the KNX brochures were widely distributed.
The short-term goal for KNX Hungary will be to participate at conferences and events more often.

Conference where KNX Hungary took part.

Contact: *www.knxhungary.eu*

KNX Technical Day at CIT

As usual, during the last few months, KNX has organized a number of workshops for groups of users interested in the KNX Technology. In particular, during the KNX Technical Day at the Cork Institute of Technology, a presentation was given about KNX and ETS4. Here, the advantages of KNX and the new features of ETS4 were shown, to prove that the software will make life easier for all new users who want to work with KNX.
The event was led by members of KNX Ireland and KNX Association, while the audience was mainly comprised of teachers interested in the KNX technology.
The success of KNX was proven once more, so that KNX Ireland will be more focused on such events for introducing the KNX technology from now on.

KNX Technical Day at the Cork Institute of Technology

Contact: *www.knx.ie*

KNX at the professional championship of Luxembourg

In the beginning of May, the 6th national professional championship took place in Luxembourg. The event was organized by the association Luxskill in cooperation with different ministries and chambers in the national center of further education CNFPC in Esch-sur-Alzette.
Competitions were organized for 14 different professions.
As part of the competition for electricians, a project based on KNX building automation was accomplished to be put into practice. Four young electricians realized the work within four days. The competition was accompanied and examined by a commission of four experts under the supervision of Patrick Colles.
The experts were representatives of the Luxembourg Association APEL and Thomas Plein a member of the board of the national KNX Luxembourg Group. The certified Training Center CNFPC did the necessary training for the participants.
KNX Luxembourg together with the KNX Training Center CNFPC set up an information booth showing the modern image of an electrician using a KNX presentation part of a professions and trading village. About 2800 visitors, above all students out of the country, visited the event to look at the performance of the young craftsmen, to get an idea about the professions shown and to get incentives concerning their own choice of profession.
Using touchscreens and i-Phone applications the young people could enjoy the up-to-date building automation and challenges that electricians are facing.

Mrs Delvaux-Stehres (minister of education), Mr Ortolani (president of Luxskill) together with an student and Mr Alphonse Massard (Secretary of KNX Luxembourg).

Contact: *www.knx.lu*

Congress for Energy Efficiency and the Rehabilitation of Buildings and Apartments

A congress took place in Malaga with high attendance which exceeded all expectations. The central topic was energy efficiency and the rehabilitation of buildings and apartments. The event was organized and carried out by the Spanish KNX Association. The following two highlights were offered:
• In the expo- area several firms presented their products, solutions and services around KNX. Many conversations led to possible business contacts.

The congress was occupied up to the last seat at all times.

• In the congress- area professional talks and discussions were offered by different firms. The target audience were architects, constructors and planning offices on the first day and electricians and planners on the second day.
The opening speech of the event was given by the mayor Málaga, Mr. Francisco de la Torre and the Representative of the Andalusian Government Ms Maria Gámez. Other celebrities out of politics, economy and press took part as well, either as visitors or giving a speech themselves.

Contact: *info@knx.es*

KNX Sweden at the ELFACK fair

The most important and largest electrical event in northern Europe is the ELFACK fair in Gothenburg, Sweden. This fair takes place every second year and is held over a period of five days. This year, KNX Sweden had a new booth layout which was situated directly at the entrance, together with EIO, the Swedish Electrical Installer Organization.
KNX Association prepared our booth, together with KNX System Integrators and had six active panels showing the most relevant KNX functionalities.

KNX Sweden booth at ELFACK

At the same time, KNX Sweden also showed the new tool ETS4 and arranged a lottery. Several prizes were available which consisted of free licenses for each of the winners. At all entrances, thousands of KNX bags were distributed, making KNX the most visible trademark at the fair.

Contact: *info@knx.se*

KNX Swiss with an own app

A highlight of the KNX activities this autumn is the presentation of the new KNX Swiss app available in German and French. The app with the name KNX is based on the structure of the website www.knx.ch and contains the columns:news, magazine, events, courses, KNX- partners and jobs. It can be downloaded on iPhone by entering the search term KNX Swiss via iTunes Store and, of course is free. Below courses, producer courses, as well as certified KNX trainings can be found. They are listed according to date, producer or title. In the menu partner all KNX-partners, producers, wholesalers and planning firms that work with KNX products are listed. To that there are the schools and trainings centers, who train Users. The information can be structured according to name, zip code or place. Contacts can be added to the personal address book. Locations of partners are shown on a map and users can look for them with GPS data, as well.

With the KNX Swiss App people who are interested in can see the companies and product informations on the road.

Contact: *knx@knx.ch*

Energy Efficiency with KNX

Climate change and ever depleting resources mean that efficient energy use is a key social issue.
A new KNX image brochure – available in eight languages – with the most important information about „KNX is a Green Technology“ has been published. Case studies prove actual energy savings with KNX based on hard data.

You can order the brochure for free at:

KNX Association
De Kleetlaan 5 Bus 11
B-1831 Diegem-Brüssel
Belgium

General contact:
Tel.: +32- (0)2 - 775 85 90
Fax: +32- (0)2 - 675 50 28
E-mail: info@knx.org

www.knx.org/knx/knx-applications/knx-is-green

Further steady growth at KNX Netherlands

In the first six months of 2011, KNX Netherlands acquired three new members, which brought the total number to 14 manufacturers or importers. Moreover, KNX is clearly growing in the Dutch market which will attract even more new manufacturers. This will enable the combined force of KNX to increase further in the Dutch market. Taking into consideration that a project can be extended with applications not related to KNX, i.e. niche companies involved in the sector of home and building electronic systems, KNX Netherlands has offered an opportunity to take part in the National Group of the Netherlands. Thanks to this, manufacturers and suppliers are able to communicate with the Dutch KNX Professionals within their network.

WAGO Nederland is one of the three new members in the Netherlands.

Contact: *info@knx.nl*

KNX at the Bosporus!

For the first time, KNX was present at the March 2011 edition of the WIN (World of Industry) Fair. The fair, which attracts more than 100,000 visitors, was the ideal opportunity for KNX to get closer to the fast-growing market in Turkey. The KNX booth was well-visited by electrical installers, university students and KNX partners, as well as project developers. Thanks to its participation at the fair, KNX Association was able to give a warm welcome to new KNX manufacturers, one new KNX training center and one KNX scientific partner.
In parallel to KNX, the above-mentioned KNX member companies each had a separate booth showing their most recent KNX novelties. Considering the above, we expect to hear more from KNX in Turkey from now on!

KNX Turkey at WIN fair

Contact: *www.knxturkiye.com*

KNX UK at CEDIA in London

KNX UK was a major presence at the CEDIA Home Technology Event, held at EXCEL London June 28 - 30, 2011. The show is the only dedicated product and training event in the UK for smart home innovations.
KNX UK took the opportunity not only to exhibit but also to offer Trade Supplier Product Training, introducing show visitors to the world of KNX. Various members of KNX UK manned the stand during this successful exhibition.

Members of KNX UK at the KNX booth

Contact: *www.knxuk.org*

New Training Centers

ROMANIA
Amavys Project SRL

Amavys Project began promoting "building management systems" designed with equipment based on the KNX standard in Romania in 2006. The most distressing issue of the market in Romania is the lack of trained certified installers, but especially electrical designers capable of providing modern buildings with higher energy efficiency and reduced life cycle costs based on the worldwide standard for home and building system technology. At the same time, the need to promote a globally recognized standard for building and home automation in the new Romanian market is becoming increasingly important, because of emerging trends to create green buildings with infinite possibilities of management and control. Taking this into account, the decision to open the first KNX certified training center in Romania meets the urgent need for certified professionals experienced to design, install and program KNX systems.

Contact: *www.amavys.ro*

GERMANY
BZI - Vocational Training Centre of the Remscheid metal and electrical industry GmbH

The BZI - Vocational Training Centre of the Remscheid metal and electrical industry GmbH is the technical training and higher education center in the hills. In addition to the basic and advanced training in more than 30 professional trades in the metal, electrical and IT technology, they offer a variety of training and higher education courses. For the KNX technology, the BZI offers the KNX basic training in various formats: as a career-long training seminar, a special course for trainees in the industrial and artisanal electronics and finally, as a training program for the companies of the electrical guild.

Contact: *www.bzi-rs.de*

FRANCE
DomoConsulting

DomoConsulting, Europeean Systems Designers Group, helps increase the number and skills of installers and system integrators with a training center named "formation-domotique.com". Since 2004, almost 300 future professionals have started a home automation course at DomoConsulting. Nowadays around 100 installers, system integrators and designers are being trained each year. DomoConsulting will offer KNX certification to professionals (basic, advanced and tutor) and as freelance trainer for schools and manufacturers using their own training tools. Directly connected to the internal DomoConsulting user-club, this training offers a highly practical approach. DomoConsulting Spain and Italy will soon create training centers and other countries will follow.

Contact: *www.formation-domotique.com*

BELGIUM
Domotechnology

The last few years domotechnology is getting more and more requests for training opportunities in the weekends. As a certified training center, they have the ability to organize basic and advanced KNX courses in evening sessions or in weekend sessions. As a recognized integrator for the Belgian KNX-Professionals user club, they also provide their installers and end users with product specific seminars. During practice, they have the possibility to take a closer look at the specifications of every product, and they learn how to program the products. Besides these product specific trainings, they also organize info sessions about 'what is KNX'. People who already have heard from home automation but don't know exactly what it is can get a summary of possibilities. In the seminar 'How to Install KNX Yourself' they explain how to install your own home automation wiring with a lot of tips and tricks.

Contact: *www.domotechnology.be*

ITALY
Electron SpA

Eelectron, as a manufacturer of KNX devices, has gathered a vast amount of know-how about the KNX system. With its qualified KNX experts, they now aim to convey the acquired knowledge through their training center. The course is suitable for electrical contractors and electro consultants who want to approach the development of home and building automation systems based on the KNX standard. To push the use of the KNX bus, they provide consulting and help in project design. As contractors and consultants don't always have the time for training sessions, Eelectron provides personalized schedules. In addition to the basic and advanced courses, they offer courses that focus on Eelectron devices.

Contact: *www.eelectron.com*

IRELAND
FAS Training Centre

FAS (The National Training & Employment Authority of Ireland) are the statutory body responsible for the delivery of all Standards Based Apprenticeships required for today's craftspeople. This mandate includes the delivery of the Standards Based Electrical Apprenticeship. KNX is an important part of their drive to provide up to date, cutting edge technology for employed and redundant craftspeople and electrical engineers.

Contact: *www.fas.ie*

SPAIN
FUNITEC – La Salle

Since 2001, FUNITEC – La Salle has conducted KNX to engineering and architecture students as well as to postgraduates and masters (MCEAS 2001-2008. MADR 2010-). Likewise, FUNITEC-La Salle has been the trainer of 25 and 40 hours of HAS and KNX courses for installers all over Spain. Due to these classes, they achieved final degree projects, publications in congresses and articles as well as a big quantity of ex-students working in their own or external home automation companies.

Contact: *www.salle.url.edu*

PORTUGAL
Gewiss Portugal Lda

Gewiss Portugal started its journey as a KNX training center. The decision to incorporate in the family of KNX training centers was due to the interest of the group (GEWISS) to promote and advertise an open and reliable technology. From the year 2011 Gewiss will start training courses "KNX Partner in Portugal".

Contact: *www.gewiss.com*

SPAIN
IMEYCA

IMEYCA is an electrical and air conditioning systems integration specialist. The company has existed already for 30 years, and they offer their students not only specific training about the KNX system, but also give training about applications in residential and industrial buildings. They have experience in training the electrical sector and have participated in three editions of the digital home master at the European University of Madrid with whom they have an agreement for cooperation in this matter.

Contact: *www.imeyca.com*

FRANCE
IUT1 de Grenoble

The Electrical Engineering Department at the IUT1 of Grenoble prepares a professional Bachelor's degree specializing in electricity distribution and automated systems. One of its branch deals with energy-efficiency in buildings, with a specific course dedicated to KNX technology. The department owns a laboratory where electricity supply depends on several aspects: physical factors, such as light, presence, and temperature or time users' choices. This lab comprises different scale models. Some of them are here to illustrate specific problems, for example light regulation, DALI configuration via KNX gateways, or heating. Programming is primarily made via the software ETS, but a prototype can also be programmed in 'easy' mode. KNX IP routers are configured as line couplers, so that you can see the entire model from just one installation, and the filtering can be put into practice.

Contact: *www-iut.ujf-grenoble.fr*

FRANCE
IUT1 de Montpellier

The French IUT of Montpellier has always known how to respond to the ongoing challenges posed by the evolution of science and technology and by today's job market. The "ELECTRICAL ENGINEERING AND INDUSTRIAL COMPUTING" department and the bachelor degree "Master and Implement Energies "M.I.E.", specialization: Managing sustainable and innovative energy solutions for construction" have introduced a special training program for KNX networks and products. Six basic practical systems to demonstrate the interactivity of different manufacturers and three typical high-level applications (Electrical distribution, Hotel/hospital room, Interactive automation) are used to illustrate the configuration and networking interactivity of KNX devices. A partnership has been set up with the French electrical distributor REXEL to open these courses to local electricity installers.

Contact:
lpenr.geii@iutmontp.univ-montp2.fr

SOUTH AFRICA
KNX Centre

As the next step in the growth of KNX in South Africa, the KNX Centre has been established in order to offer local training for present and prospective KNX Partners. Offered in conjunction with KNX Automation, distributors for various KNX Members such as Eelectron, Lingg & Janke, Zennio, EISSound, Bab-Tec, Elsner and MDT, those in Southern Africa are now able to receive basic and advanced training with lower cost flights and accommodation in Cape Town. With over six years experience with the worldwide standard, KNX Centre is the perfect place for KNX Partners to train.

Contact: *www.knxcenter.co.za*

TAIWAN
KNX Training Centre Taiwan

KNX Training Centre Taiwan is the first KNX related center in the country with the aim of providing quality training to professionals who are new to the KNX standard. After over 50 years of teaching and training students in fields like electricity, plumbing, automation systems, etc., they are eager and well prepared to convey the KNX skills to students in Taiwan. The main objective of this project is to promote the KNX standard in Taiwan. The KNX Training Center will focus on the students, the future professionals, teaching and training them for the new electrical era. The Center has well-trained tutors, not only in the KNX technology but also in the electrical field, providing high quality training in KNX courses.

Contact: *www.knxcenter.com.tw*

FRANCE
NEIS

NEIS is a designer and an integrator in KNX solutions. Each individual has different priorities and ways of living. They are developing customized solutions according to occupant requirements. Their aim is to fulfill the needs of security, autonomy, comfort, effectiveness or even energy efficiency. They are convinced that home automation has a high added value in construction projects. This is the reason why NEIS has the accreditation to deliver the KNX certification.

Contact: *www.neis.fr*

GREECE
Quantum

Quantum focuses on offering a high level of KNX training to the free market in order to provide well-trained system integrators to the world of building construction. The strategic cooperation with ABB, Schneider Electric and Siemens gives the opportunity to the participants to "feel and touch" the inter-operability of the KNX world during the training. Due to the mobility of the training center, Quantum aims to develop KNX training hot spots around Greece. KNX customized training, as a first kick-off step to the KNX World, is also provided by Quantum, with the objective that the client can successfully bring KNX-technology into practice.

Contact: *knxcert@otenet.gr*

INDIA
Schneider Electric India

Schneider Electric India started promoting the KNX system in 2010 and has made great progress in educating the customers and installers about the benefits of using the open system and completed many projects within a short span of time. They have a network of system integrators and installers, but to expand they need more KNX users and installers in India. Hence to support, educate and focus on the KNX platform, Schneider Electric India (SEI) has started a KNX training center under the learning & development program. They intend to train Schneider Electric employees and system integrators.

Contact: *www.schneider-electric.co.in*

SWEDEN
Schneider Electric Sweden

To answer the increasing demand for KNX training, due to the the growing KNX market in Sweden, Schneider Electric has now started a KNX certification training for ETS, in the Schneider Electric Training Centre in Angelholm. Here they also have KNX introduction courses and product courses for more experienced users. The Training Centre in Angelholm is placed in a lovely park in the south of Sweden so Schneider Electric can offer a stimulating environment. For 2011 they plan to have one certification training in the beginning of November. The course will take five days and they can teach six students at the same time.

Contact: *www.schneider-electric.se*

SPAIN
TECDOS DOMOTICA

TECDOS DOMOTICA was born in 2005 as an engineering company dedicated to promote and provide design and consulting services for the integration of intelligent automation. From the beginning, KNX technology was their main tool. TECDOS gradually began to implement bigger and more interesting projects. They noticed that there was an urgent need to train more people in the area. Six years later they have gained the necessary experience and are in a position to train new KNX Partners in an effective, open and fun way for the student. The next step: in the future they are planning to develop new software and hardware designed according to their criteria and experience. TECDOS has seen more potential in the world of automation and believe they have something interesting to offer, either by themselves or by cooperating with other technology companies.

Contact: *www.tecdos.com*

ARGENTINA
THI Training Centre

THI Training Centre is a department of THI Soluciones Inteligentes, who has been dedicated to building control systems since 1994. THI Training Centre gives KNX Basic and Advanced Courses to clients and to whomever wants the certificate in the basic or advanced training course or to become a KNX partner. THI has experience on KNX systems acquired over more than 500 concluded projects. This is an outstanding skill they want to rehighlight. Students will get not only the standard knowledge but also the "tricks and tips" of KNX systems, only acquired through 18 years of experience. THI is partnered with the German company Merten among others; this ensures to the student up-to-date devices and technologies. THI Training Centre gives other training services related with KNX systems like applied projects e.g. DALI systems.

Contact: *www.thi.com.ar*

GERMANY
Vattenfall Europe Business Service GmbH

Already since 1995, KNX has been presented at the Vattenfall Europe training centre in Hamburg as a subject for electronic engineers. The conventional building technique is replaced by KNX building control training in the form of a project, so that the students can obtain practical experience, also in their future years. To enhance the skills of future specialists, they offer a KNX basic course with final examination and certificate, which can be extended by an advanced course when passing the basic exam. The young professionals are thus optimally prepared.

Contact: *www.vattenfall.de*

New Scientific Partner

FRANCE
EPITECH European Institute of Technology

Founded in 1999, EPITECH is a French school of computer engineering with a learning model based upon three qualities that are increasingly required in the workplace: adaptability, autonomous development and a sense of project management, making the students solid and open to change. SysHome is an open source home automation project to keep life just as simple with the KNX standard. There are several parts:

- A server controlling electrical interactions in a building and analyzing consumed energy.
- A web client allowing users to manage equipment through an ergonomic interface or to create complex scenarios.
- A custom GNU/Linux distribution to quickly industrialize the project and a lot of homemade packages to deploy SysHome on several known GNU/Linux distributions.
- Finally, the project will be embedded in a silent, energy-efficient and compact designed especially for GNU/Linux support.

Contact: *labeip@epitech.eu*

TURKEY
Pamukkale University

In the Clean Energy House, KNX applications for residential power control energized by photovoltaics, fuel cells and wind turbines are studied. They have different equipment for lighting control and actuator applications. One of the integrated renewable fuel cell energy systems, which combines solar and wind energy as primary energy sources, was installed in the Pamukkale University in Denizli as a Clean Energy House (CEH). The aim is to design an integrated system for the house using solar and wind energy to procure all energy needs without using fossil based energy sources and to provide an environmentally benign design and operation. The hybrid energy system is composed of 5 kWp photovoltaic panels, 2.4 kWp fuel cell modules and 800 Wp wind turbines. For performance evaluation, half of the photovoltaic panels are located on fixed tilt and the other half are mounted on solar trackers.

Contact: *engincetin@pau.edu.tr*

GERMANY
Technical University of Darmstadt

The department of renewable energy participated together with the department of energy efficient construction at the 2007 and 2009 Solar Decathlon, a competition for energy self-sufficient solar houses of the Department of Energy in Washington, DC. In 2009 the solar house; surPLUS home was implemented with KNX, an innovative fully automated building control system, which provides functions like load management and energy monitoring. Both competitions were won by the TU Darmstadt. The department of renewable energy continues to research the KNX building control system in combination with the innovative EEBus approach. Partners of the department are ABB Stotz-Kontakt, Busch Jaeger, Striebel & John GmbH and Kellendonk.

Contact:
thomas.hartkopf@re.tu-darmstadt.de

FRANCE
Université Paris Sud

Cachan Institute of Technology is a part of the Paris XI- University. Students from 18 to 21 years old learn electrical or mechanical engineering. Since 1990, the institute has also offered the equivalent of a bachelor of engineering in industrial automation. All the students in its program are apprentices: they spend part time in the institute and part time in an automation firm. In September 2011, building automation will be introduced to adapt this formation to the needs of companies near Paris. Besides the classic program in industrial automation (programming, industrial network, monitoring), the program in building automation gives an approach of the specific networks and the physics knowledge about HVAC (heating, ventilation and air-conditioning), and lighting.

Contact: *anthony.juton@u-psud.fr*

Trade Fair ELTEFA – a convincing success

At the trade fair of Electrical technology and Electronic ELTEFA in Stuttgart the Association of Integrators for Building Technology was present with a booth for the first time. At the booth visitors could learn on a professional level about the areas of system integration KNX, intelligent buildings, efficient light techniques and the association itself.
Otmar Stich explained the work of a system integrator using a 3D-visualization of a home. At the TCI, you could learn more about the newest Ambiento-Touch-Panels of KNX. The futurasmus KNX group gave an overview of the current KNX products by showing a selection of KNX panels and displays to the interested audience. On the panels of GePro mbH, specialized visitors could learn about the newest KNX tableaux and test them.
The generous support of the KNX Association made possible that the visitors had the chance to win a ETS4 licence worth 900,00 Euro. The desired vouchers for the ETS4 Lite were likewise provided by the KNX Association. Due to the support of the "two KNX girls" a great deal of specialized information was offered as the current KNX Journal in KNX bags was given to the visitors in the fair halls. The standardized booth layout of the KNX Professionals and the shared concept was appreciated. The booth was also a meeting point for members who visited the fair.

KNX Professionals FOR the first time at the ELTEFA.

The "two KNX girls" provide much specialized information as the current KNX Journal in KNX bags was given to the visitors.

Contact:
www.knx-professionals.de

Large turnout at 'KNX meets Apple' conference

Nearly 150 KNX Professionals and members of KNX Netherlands were present at the network conference June 22, 2011. During the whole day, visitors could participate at presentations, demonstrations and speed dates. The central theme of the day was the visualization of KNX systems, primarily through the iPad and iPhone, but also with other tablets and smart phones. This appeared to be a subject for which there was great interest, in view of the fact that nearly half of all KNX Professionals in the Netherlands were present.
The key note speaker was Bram Elderman, senior system engineer at Apple Benelux, who besides the key note lecture, also held a workshop for system integrators. In addition, some KNX Professionals gave a lecture and demonstration with their own visualization system. The members of KNX Netherlands demonstrated their products via speed dates.

Huge crowd of almost 150 KNX Professionals were present.

Contact:
www.knx-professionals.nl

New KNX Professionals Board in Spain

On the April 2nd, an important meeting took place in Spain. During this meeting, the members of the KNX Userclub discussed new and fresh activities, finally approving the name of the common Userclub image. This is to become "Professional KNX Spain".

Members of KNX Professionals Spain

In addition, the election of the new Board for the KNX Professional was held.
After the vote, the President, D. Francisco Javier Expósito, the Vice-President, D. Klaus Klima Stube and the Secretary, D. Javier Moret were elected.

Contact:
www.knxprofessionals.es

KNX at International Conferences / Fairs

Taichung (Taiwan)

Opening of the first KNX Training Centre in Taiwan

The first certified KNX Training Center was established in the beginning of June in Taiwan, under the patronage of the Chunghwa Electrical Research & Development Association. The KNX Training Center conducted the first course from the 20th to 24th June, which was fully booked. This proves the continuously rising demand for KNX in Asia. As in many other countries, the KNX Association is putting a strong focus on the Taiwanese market, in order to react more closely to the local market demands.

Participants and during the practical session of the KNX Basic course.

Contact: *info@knx.org*

Singapore (Singapore)

First Singapore Forum of KNX Technology and Application for Home and Building Control

An example of a successful event was given by the KNX Association in Singapore: "The First Singapore Forum of KNX Technology and Application for Home and Building Control – Create A Green, Comfortable and Energy Saving Environment for Modern City Life" and the parallel organized KNX Exhibition was attended by more than 120 participants. All participants realized that the KNX Association International is now present in Singapore and more events will come.

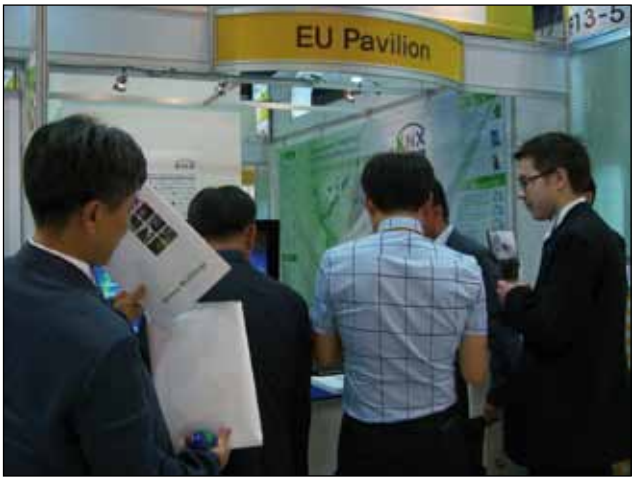
More than 120 participants at the first KNX Forum in Singapore.

Contact: *info@knx.org*

Seoul (Korea)

Successful trade show performance in Korea

The KEPA (Korean Environmental Preservation Association) held the exhibition of International Exhibition on Environmental Technology and Green Energy in the Convention and Exhibition Center (Coex) in Seoul, the largest environmental exhibition in Korea. Korean environmental policies have dramatically changed in 2010, also as concerns green energy, so that many new energy technologies were present at the Envex 2011.



Due to continuously rising demand for KNX and its attractive high energy saving potentials, the KNX Association presented the KNX Standard to a broad. The interest for KNX was enormous and raised the awareness for KNX significantly. This proves that the KNX Standard has finally arrived in Korea and will be growing significantly within the near future.

Contact: *info@knx.org*

Cape Town (South Africa)

First Certified KNX Training Centre in Southern Africa

In June 2011, the first official KNX Training Centre in Southern Africa, EIB Automation's "KNX Centre", held its first KNX basic course. KNX Centre was created in order to stimulate awareness of the KNX technology and its potential applications in the region. As a result, KNX Centre intends to establish KNX technology as a benchmark in the field of control systems and energy efficiency.

Picture of the room where the practical lessons are conducted.

Located in the city of Cape Town, South Africa, KNX Center offers its training services for those in southern Africa. They have already scheduled their follow-up courses.

Contact:
www.knxcentre.co.za

Marbella (Spain)

KNX at ECA Conference

The 2011 ECA Electrical Industry Conference offered a unique opportunity for manufacturers, contractors, distributors and clients to partake in a conference programme that featured presentations by leading electrical industry specialists and noted business entrepreneurs from UK and Europe.
The delegates were encouraged to look at the opportunities presented by the growing market for building control systems that use the KNX standard. Therefore, ECA invited for the first time Heinz Lux from KNX Association and Iain Gordon, President of KNX UK, to each make a presentation and promote KNX. It was a great success for KNX in the UK.

ECA Conference

Contact: *info@knx.org*

Beirut (Lebanon)

KNX in Lebanon

For the first time, KNX participated at the Project Lebanon 2011 exhibition. The booth exhibited KNX devices from different KNX manufacturers, as well as several customer solutions.
For the visitors to the fair, architects, engineers, consultants, contractors and some end-users, a visit to the KNX booth was a must. As a consequence, international KNX members and partners have already shown interest in taking part at the next exhibition as well.

KNX system integrator booth at the Project Lebanon exhibition

Contact:
Hrayr.D@dhas.com.lb

Helsinki, Oslo, Stockholm (Finland, Norway, Sweden)

KNX Nordic Journal

For the first time, three KNX National Groups released the KNX magazine, which shows many interesting topics in their own languages: Finnish, Norwegian and Swedish. This KNX Nordic Journal contains articles on: KNX Solutions, International and Nordic KNX Projects, ETS4 information, contacts and much more.
All KNX partners in Finland, Norwegian and Swedish have received a copy of this issue. If you are also interested in reading the Nordic Journal, you can find an electronic copy under the section "KNX Journal" (menu: News & Press / KNX Journal).

Link:
www.knx.org/news-press/knx-journal/

Barcelona (Spain)

High interest at the Spanish ETS4 Workshop

With over 70 participants, the first ETS4 workshop more than fulfilled expectations for KNX, the event was held the June 16 at the University Ramon Llull, La Salle Campus in Barcelona.
In the first part Mr Sartor, technical secretary of KNX Spain, explained the main aspects of KNX Spain. A delegate from KNX Association then introduced the first shots of ETS4 in Spanish and finally, Mr Moreno, President of KNX Spain, did a practical project with the Spanish version of ETS4.
Due to the great enthusiasm shown by the audience, it is clear for KNX that more ETS4 workshops have to be held in the future!

Contact: *www.knx.es*

The audience following the practical project shown by Mr Moreno.

Paris (France)

First ETS4 KNX Workshop in France

The very first ETS4 KNX Workshop was held in Paris on the April 1, 2011. The event took place at Schneider Electric. This workshop, organized by KNX Association Brussels in collaboration with KNX France, marked the start of a series of events planned in France, around the new version of KNX Association's leading tool. More than 50 participants had the occasion to have a detailed overview of ETS4, as well as a live demonstration. The numerous questions that followed showed a real enthusiastic interest towards this new release. This event, dedicated particularly to expert users of ETS, will also have a follow-up directed towards beginners in this domain.

Contact: *info@knx.org*

Participants at the ETS4 Workshop in Paris

Luxembourg (Luxembourg)

KNX at the annual AG of KNX Luxembourg

In the middle of June, KNX was invited to the annual General Assembly of the Luxembourg National Electrical Contractors Association (APEL) to present the KNX technology and explain why it stands out against the other available smart home and building solutions. It was an opportunity for the KNX Brussels delegation to discuss the local Luxembourg KNX market, which may be considered as quite mature, involving an increasing number of integrators and a substantial number of realized KNX projects, both in residential as well as commercial applications. Also present at this meeting were delegates from KNX Luxembourg, which was only recently founded and is represented by KNX members, integrators, wholesalers, contractors and training centers active in the Luxembourg market.

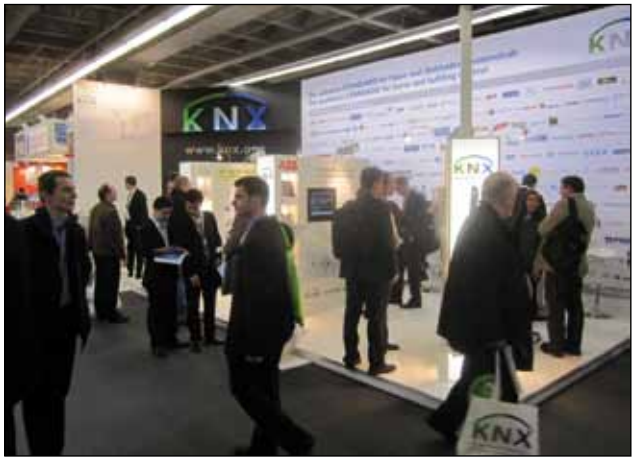
Members of KNX Luxembourg during the break of the meeting

Contact: *info@knx.org*

Frankfurt (Germany)

KNX at ISH2011

ISH has been the international forum for future-oriented industries for over 50 years. In 2011 over 204,000 visitors from 140 countries visited the world's largest trade fair for energy and air-conditioning technologies and renewable energies.
On this occasion, KNX showed several applications based on the KNX bus technology at their booth. The visitors to the booth were delighted with the solutions shown: energy efficiency solutions, new HVAC control, smart metering solutions and the alliance for smart metering solutions (EENERGY) from EEBUS.
It was clearly demonstrated that the utilization of the KNX technology for building system engineering to improve comfort and energy savings, cannot be repeated often enough.



KNX booth at the ISH in Frankfurt

Contact: *info@knx.org*

Brussels (Belgium)

KNX Devices List on the website!

The newest KNX products are now directly visible on our website. This overview gives the latest KNX innovations with a short product description, a picture and a direct link to the website of the KNX member in question. The page name is "KNX Devices" and it is located within the drop down menu "KNX".

Link:
www.knx.org/knx/knx-devices/

worldskills London 2011

5. – 8. Oktober

41. International Young Competiton

Participants from 50 nations

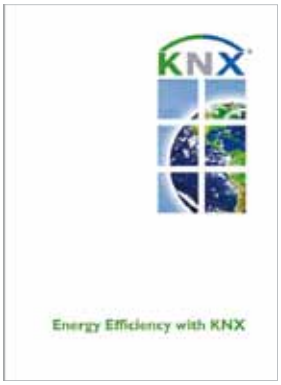
For the first time based on KNX

Photo: courtesy of WorldSkills International

Brussels (Belgium)

New KNX Energy Efficiency flyer

Following the trend of energy efficiency awareness, in this flyer, KNX projects showcase the possibilities for energy efficiency, lighting systems and reduced life cycle costs provided by KNX. The brochure demonstrates that the energy saving potential of 40% with shading control, 50% with individual room control, 60% with lighting control and up to 60% with ventilation control is possible. The flyer is currently available in English and German. You can download a copy of this flyer in the download section of the KNX website or send a request to info@knx.org.



Link: *www.knx.org/downloads-support/downloads/(section: Various)*

KNX Solutions flyer now printed!

KNX is used in all types of homes and buildings, for many purposes and in an efficient way. The flyer "KNX Solutions" shows 15 cases in which KNX can be used, the advantages of KNX, as well as all the outstanding projects from the latest edition of the KNX award. The flyer is currently available in five different languages. Interested? You can now download it from our website or send a request to info@knx.org.

Link:
www.knx.org/downloadssupport/downloads/ (section: Various)

New KNX Press Release Showing Energy Saving Costs in KNX Projects

This PR highlights that an improved energy balance through building automation is possible with KNX. By reading this document, you will learn the important facts and figures regarding what can be achieved with KNX, as well as see some important KNX projects from all over the world. The KNX press release is now available in seven languages. You can have direct access to the article and pictures on the Press Room submenu.

Link:
www.knx.org/news-press/press-room/

KNX Conferences/Fairs Schedule

2011

Build Eco Xpo 2011
14. – 16.9.2011
Singapore (Singapore)
Building exposition in South-East Asia focused on green building
www.bex-asia.com

Elektrotechnik 2011
14. – 17.9.2011
Dortmund (Germany)
Leading regional trade fair for electrical engineering and industrial electronics
www.westfalenhallen.de/messen/elektrotechnik/index.php

IBS 2011
20. – 21. 9. 2011
Paris (France)
Intelligent Building Systems Exposition focused on smart systems for building performance
www.ibs-event.com

The 5th Shanghai International Intelligent Building Exhibition
21. – 23. 9. 2011
Shanghai (China)
The exhibition aims at brand-building & makes great efforts to invite professional buyers
www.biztradeshows.com/trade-events/sibe.html

Elektrotechniek 2011
03. – 07. 10. 2011
Utrecht (The Netherlands)
The most important trade fair for the installer industry
www.elektrotechniek-online.nl

WorldSkills 2011
5. – 8. 10. 2011
London (UK)
The world's largest, international skills competition
www.worldskillslondon2011.com

efa
12. – 14. 10. 2011
Leipzig (Germany)
Fair for building systems, electrical engineering, air conditioning and automation
www.efa-messe.com

Autumn Fair 2012 15.-23.10.2011
Kirchberg (Luxemburg)
An must-attend event focused on products and services for anyone with building, renovation or decoration plans in mind.
www.automne.lu

Green Building Council Convention
26. – 28. 10. 2011
Cape Town (South Africa)
South Africa's leading green building conference and exhibition
www.gbcsa-convention.org.za

KNX National Forum
9.-10.11.2011
Santurtzi (Spain)
Conference organized by KNX Spain
www.knxforum.es/santurtzi

BIEL Light + Building
8.-12.11.2011
Buenos Aires (Argentina)
Biennial international trade fair for electrical Engineering, electronics and lighting
www.biel.com.ar

National Domotics & Smart Living Fair
23. – 24. 11. 2011
Eindhoven
(The Netherlands)
Trade show mainly based on home and building electronic systems
www.beursdomoticaenslimwonen.nl

HI-Tech Building 2011
8. – 10. 11. 2011
Moscow (Russia)
This exhibition presents intelligent building technologies for building operation and management
http://htbh.ru

ISE 2012
31.1. – 2.2.2012
Amsterdam (The Netherlands)
Europe's No. 1 event for the professional AV and electronic system industry
www.iseurope.org

Sähkö Tele Valo AV 2012
1.-3.2.2012
Jyväskylä (Finland)
International exhibition of electricity, telecommunications, light and audio visual
www.jklpaviljonki.fi/sahko2012/eng.php

Batibouw 2012
1.-11.3.2012
Brussels (Belgium)
Belgium's biggest building trade fair
www.batibouw.be

Ecobuild 2012
20.-22.3.2012
London (UK)
UK's biggest event for sustainable design, construction and the building environment
www.ecobuild.co.uk

Light + Building 2012
15.-20.4.2012
Frankfurt (Germany)
The world's leading trade fair for architecture and technology
light-building.messefrankfurt.com

BCI Awards 2012
12.5.2012
London (UK)
British Construction Industry Awards
https://www.emapawards.com/bciawards2011

Eliaden 2012
4. – 7.6.2012
Oslo (Norway)
The industrial event where the entire electrical engineering industry will meet up
www.eliaden.no

KNX Scientific Conference 2012
1.-2.11.2012
Gran Canaria (Spain)
Bi-yearly event where KNX Scientifc and KNX Members meet
www.knx.org/knx-partners/scientific/scientific-events

Imprint

KNX Journal international
The KNX Journal is the international magazine for home and building control based on KNX technology. Experts, practitioners and professionals show the way in applying and developing the KNX standard – from home and building control trends to devices and application projects; from the KNX members and partners to useful information on event stand and publications. Special attention is given to members and activities of the KNX Association international and their national groups.

Distribution
This bi-annual and bi-lingual Journal (English/German) can be ordered free of charge by all members, partners (installers, scientific, training centres, associated, national groups) and by media representatives of KNX Association international. Order the KNX Journal by Email from knx-journal@knx.org.

Online Distribution
The KNX Journal international is posted as a Portable Document Format (PDF)-File to www.knx.org/news-press/knx-journal/.

Editor
KNX Association cvba
De Kleetlan 5 Bus 11
B-1831 Diegem - Brussels, Belgium
Phone: +32 (0) 2 775 85 90
Fax: +32 (0) 2 675 50 28
Email: info@knx.org
URL: www.knx.org

Editorial Office:
Redaktion KNX Journal
Friedrich-Wolf-Str. 16 A
12527 Berlin
Germany
Phone: +49 (0) 30 64 32 62 79
Fax: +49 (0) 30 64 32 62 78
Email: knx-journal@knx.org
URL: www.knx.org/news-press/knx-journal/

Translation:
Dipl.-Ing. Oliver Schwabe

Print edition:
60,000 copies

Picture credits:
KNX Association cvba, editorial office and specified companies (Cover page 2 pictures by fotolia)

Your partners

KNX Association
De Kleetlaan 5 Bus 11
B - 1831 Diegem-Brüssel
Belgium

General contact:
Phone: +32 - (0)2 - 775 85 90
Fax: +32 - (0)2 - 675 50 28
Email: info@knx.org

System & Administration Department

Mr.
Joost Demarest

Director

joost.demarest@knx.org
Phone: +32 - (0)2 - 775 86 44

Mrs.
Hazel Johnson

Administration Assistant
- Scientific partners
- Membership

hazel.johnson@knx.org
Phone: +32 - (0)2 - 775 86 45

Mr.
Ufuk Unal

Certification Assistant
- Registration of Partners
- Certification of Products
- Certification of Training Centres

ufuk.unal@knx.org
Phone: +32 - (0)2 - 775 86 53

Mr.
Steven de Bruyne

System Manager

steven.debruyne@knx.org
Phone: +32 - (0)2 - 775 86 47

Sales

KNX Tools Online Shop:
https://onlineshop.knx.org

Tool Support

KNX Online Support:
https://onlineshop.knx.org

Sales & Marketing & Tools Department

Mr.
Heinz Lux

Director
Spokesman

heinz.lux@knx.org
Phone: +32 - (0)2 - 775 86 42

Mr.
Serge Creola

Sales
& Support Manager

sales@knx.org
Phone: +32 - (0)2 - 775 85 90

Mr.
André Hänel

Tool Manager

andre.haenel@knx.org
Phone: +32 - (0)2 - 775 85 90

Mrs.
Angelique De Scheemaecker

Sales Assistant

sales@knx.org
Phone: + 32 (0)2 - 775 85 90

Mr.
Casto Canavate

Marketing Manager

casto.canavate@knx.org
Phone: +32 - (0)2 - 775 85 90

Mr.
Thibaut Hox

Sales & Marketing

sales@knx.org
Phone: + 32 (0)2 - 775 85 90

Mr.
Christian Stahn

Marketing

christian.stahn@knx.org
Phone: +32 - (0)2 - 775 86 48

Mr.
Christophe Parthoens

Support Engineer

support@knx.org
Phone: +32 - (0)2 - 775 85 90

Follow us

twitter facebook

YouTube LinkedIn

The worldwide STANDARD for home- and building control

KNX Members

246 manufacturer's from 29 countries

www.knx.org