

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Electro-magnetic field measurement kit

Technology Contact Point

Name:

Organization: Narda

Email, website: www.marda-sts.it

Short description

Max 3 sentences: A system that measures the three spatial components of the electro-magnetic field in a specific point. It can be equipped with different sensors, depending on the frequency of the field to measure.

Keywords: electro-magnetic field, measurement system

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Health - electro-magnetic fields

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Platform CREA

Technology Contact Point

Name: Sergio Olivero

Organization: SiTI

Email, website: olivero@siti.polito.it, www.siti.polito.it

Short description

Max 3 sentences: An innovative platform that connects through wireless links a wide range of commercially available sensors (all the sensors compliant to the 4-20mA and 0-10V standards), in order to perform a pervasive indoor monitoring. Data is collected and transmitted to a remote control centre for storage and future analysis

Keywords: indoor monitoring, wireless sensor network, remote control centre

Details

Level of availability: Industrial prototype

Building type applicable:

Office: Yes

Residential: No

Commercial: No

Educational: No

Other: 1

Main indicators list

1st indicator: Health - Indoor Air Quality

2nd indicator: Comfort - Hicrothermal comfort

Additional information

Comments: The CREA platform is being tested in some locations in Northern Italy

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Real Time monitoring System

Technology Contact Point

Name: SensiNet

Organization: Sensicast

Email, website: sales@sensicast.com, www.sensicast.com

Short description

Max 3 sentences: SensiNet® is a complete, wireless sensor network built for industrial and commercial environments where wireless operation and high reliability are required. SensiNet Smart Sensors are the heart of SensiNet's flexibility. They provide a range of industry standard interfaces: 4-20 mA, 0-10 V, RTD temperature, contact closure, touch, integrated Temperature and humidity.

Keywords: Wireless Sensor Network, Flexibility

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Health - Indoor Air Quality

2nd indicator: Comfort - Hygrothermal comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Real Time Monitoring System

Technology Contact Point

Name: Saveris

Organization: Testo AG

Email, website: info@testo.de, www.testo.com

Short description

Max 3 sentences: The testo Saveris measurement system measures temperature and humidity values in the environment and in processes. The easy-to-use measurement system delivers safety and time savings thanks to automated measurement data recording.

Keywords: distributed monitoring, temperature and humidity data collection

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort - Hygrothermal comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Individually controlled micro-environment

Technology Contact Point

Name: Arsen K. Melikov

Organization: International Centre for Indoor Environment and Energy, Department of Civil Engineering, Technical University of Denmark

Email, website: akm@byg.dtu.dk, www.byg.dtu.dk

Short description

Max 3 sentences: Individually controlled environment at workplaces will provide occupants with preferred micro-environment at their workplaces and thus will increase their satisfaction and will improve their work performance. The implementation of individually controlled technologies in buildings has potential for tremendous energy saving. This technology needs to be further developed and applied in practice.

Keywords: micro-environment, individual control, energy saving

Details

Level of availability: Industrial prototype

Building type applicable:

Office: Yes

Residential: No

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort - comfort

2nd indicator: Energy - energy

Additional information

Comments: additional indicators: work performance.

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Integrated Workplace Management System

Technology Contact Point

Name: IWMS

Organization:

**Email,
website:**

Short description

Max 3 sentences: A single application software suite known as an Integrated Workplace Management System provides the critical tools and technologies necessary to manage the entire real estate lifecycle for improved operational, financial and environmental performance. IWMS brings together the disciplines of real estate, construction/project management, facility management, maintenance operations, and environmental sustainability into a single web-based technology platform.

Keywords: facility management, environmental sustainability

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: No

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort - HVAC control

2nd indicator: Energy - low-energy built-environment

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Software Platform for e-Management Solution

Technology Contact Point

Name: Leonardo

Organization: Free Mind

Email, website: info@FreeMind-group.com, www.FreeMind-group.com

Short description

Max 3 sentences: Leonardo is a software platform to quickly build web-based solution for managing in real-time complex infrastructures such as telecom networks, security systems and building's technical installations. Leonardo-based applications offer an intuitive easy to work environment and powerful customisation features to adapt the system to the corporate operational needs. Leonardo is the ideal tool for integrators to deploy highly competitive and unique solutions in a short time to market and limited development efforts.

Keywords: software platform, real-time managing system, systems integration

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort - HVAC system

2nd indicator: Comfort - Light control

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: CHP system

Technology Contact Point

Name: DEUTZ

Organization:

Email, website: www.deutz.de

Short description

Max 3 sentences: It's a system that allows the combined generation of electro-mechanical power and heat energy. CHP system can be fed by natural gas or fuel. The energy is generated through internal combustion engine or turbogas.

Keywords: energy generation, combined production

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: No

Commercial: Yes

Educational: Yes

Other:

Main indicators list

1st indicator: Energy - Energy production

Additional information

Comments: A CHP system coupled with an absorption chiller allows the production cooling energy by recovering thermal waste. This process is known as tri-generation.

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Absorption chiller

Technology Contact Point

Name: Broad

Organization:

Email, website: www.broad.com

Short description

Max 3 sentences: An absorption chiller is a system which recovers thermal energy and transforms it in chilling energy. In civil application it is often coupled with a cogenerator. Through a proper thermodynamic cycle. The energy is absorbed from the external reducing the amount of heat in the environment.

Keywords: cooling power, temperature control

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: No

Commercial: Yes

Educational: No

Other:

Main indicators list

1st indicator: Comfort - Temperature control

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Under floor ceiling and under floor cooling

Technology Contact Point

Name: Prof. vertr. Dipl.-Ing. Thomas Jeschke

Organization:

Email, website:

Short description

Max 3 sentences: Use of under floor heating as cooling

Keywords: heating, cooling, indoor quality

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Heating and cooling ceiling

Technology Contact Point

Name: Prof. vertr. Dipl.-Ing. Thomas Jeschke

Organization:

Email, website:

Short description

Max 3 sentences: Capillary tube in the ceiling for heating and cooling effects

Keywords: heating, cooling, ceiling

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Heating and cooling walls

Technology Contact Point

Name: Prof. vertr. Dipl.-Ing. Thomas Jeschke

Organization:

Email, website:

Short description

Max 3 sentences: heating and cooling of walls, indoor comfort,

Keywords: heating, cooling, indoor comfort

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: concrete core activation

Technology Contact Point

Name: Prof. vertr. Dipl.-Ing. Thomas Jeschke

Organization:

Email, website:

Short description

Max 3 sentences: complex pipe system for cooling effect, high store capacity, problematic dullness effects and capacity dullness

Keywords: cooling, concrete

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: peripheral climatisation

Technology Contact Point

Name: Dipl.-Ing. Hermann Ensink

Organization: Kavent Modultechnik

Email, website:

Short description

Max 3 sentences: comparison of central and peripheral climatisation, construction, build, energy costs, control, maintenance

Keywords: climatisation

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other:

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Preheated/precooled air through underground pipes

Technology Contact Point

Name: Dr. Károly Matolcsy

Organization: ÉMI

Email, website: kmatolcsy@emi.hu, www.emi.hu

Short description

Max 3 sentences: The ventilation inlet should be driven through underground pipe to secure preheated/cooled air.

Keywords: Underground pipe, Preheated, Precooled

Details

Level of availability: Industrial prototype

Building type applicable:

Office: Yes

Residential: No

Commercial: Yes

Educational: No

Other: -

Main indicators list

1st indicator: Energy - Energy

2nd indicator: Economic indicators for the indoor environment - Cost effective solution

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: peripheral ventilation

Technology Contact Point

Name: Alwin Krumpholz

Organization: AL-KO Lufttechnik

Email, website:

Short description

Max 3 sentences: peripheral air heating system, concept: "Save Energy"

Keywords: heating, ventilation

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other:

Main indicators list

1st indicator: Comfort

2nd indicator: Energy - energy saving

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Air conomy

Technology Contact Point

Name: Schuetz

Organization: Schuetz

Email, website: www.schuetz.de

Short description

Max 3 sentences: multi function (heating, cooling, ventilation), efficient indoor climate

Keywords: heating, cooling, ventilation

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other:

Main indicators list

1st indicator: Comfort

2nd indicator: Energy - energy efficiency

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Refresh
Technology Contact Point

Name:
Organization:
Email, website: www.pluggit.com

Short description

Max 3 sentences: ventilation concept, heat recovery system, low energy losses, perfect for retrofitting
Keywords: heating, cooling, energy saving

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes
Residential: Yes
Commercial: Yes
Educational: Yes
Other:

Main indicators list

1st indicator: Comfort
2nd indicator: Energy - Energy efficiency

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: ventilation and air distribution

Technology Contact Point

Name: Arsen K.Melikov

Organization: Department of Civil Engineering, Technical University of Denmark

Email, website: akm@byg.dtu.dk, www.byg.dtu.dk

Short description

Max 3 sentences: Present ventilation methods are based on total volume air distribution which is inefficient because clean air is supplied far from occupants and is warm and polluted by the time it is inhaled. Personalized ventilation aims to supply clean and cool air to each workplace and thus to provide efficiently optimal thermal comfort and high quality of inhaled air leading to improved health, comfort and performance of occupants at reduced energy use. Furthermore personalized flow of clean air will protect occupants and will decrease the risk of cross-infection in offices, schools, hospitals and crowded places (vehicles, concert halls, theaters, etc.).

Keywords: advanced air distribution, individual control, protection

Details

Level of availability: Industrial prototype

Building type applicable:

Office: Yes

Residential: No

Commercial: Yes

Educational: Yes

Other: 1

Main indicators list

1st indicator: Health - health

2nd indicator: Energy - energy

Additional information

Comments: An important indicators are also comfort and work performance.

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Mechanical ventilation system with heat recovery

Technology Contact Point

Name: ATREA s.r.o.

Organization: ATREA s.r.o.

Email, website: www.atrea.cz

Short description

Max 3 sentences: High-efficient mechanical ventilation system with heat recovery, using circulation air in duplex-system. Use in single family houses, in dwellings. Low-energy and passive house level. Better moisture control in winter

Keywords: mechanical ventilation, heat recovery

Details

Level of availability: Commercially available

Building type applicable:

Office: No

Residential: Yes

Commercial: No

Educational: No

Other: -

Main indicators list

1st indicator: Energy

2nd indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Enhancing Natural Light
Technology Contact Point

Name: Dr. Károly Matolcsy
Organization: ÉMI
Email, website: kmatolcsy@emi.hu, www.emi.hu

Short description

Max 3 sentences: More natural light should be secure through the roof. Intelligent light-gathering systems. Avoiding overheating effects.

Keywords: Rooflights, Light gathering systems, Avoid overheating

Details

Level of availability: Industrial prototype

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Other - More natural light

2nd indicator: Energy - Avoid overheating

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: K-LUCE

Technology Contact Point

Name: KNAUF Sas

Organization: KNAUF Sas

Email, website: www.knauf.it

Short description

Max 3 sentences: This technology consists of a system that embeds lights, to be used in interior environments, directly within ceilings and walls of the environment itself, so that light is diffused by them. Its purpose is to improve comfort of the indoor built environment through an aesthetically pleasant solution.

Keywords: comfort, indoor lights

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: No

Other: -

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Simulation of moisture and microbial problems in building

Technology Contact Point

Name: Tietotie 2, 02150 Espoo, Finland

Organization: VTT

Email, website: hannu.viitanen@vtt.fi

Short description

Max 3 sentences: The indoor air simulator can be used to investigate how complete structures affect the indoor air quality. The simulator has several different applications, the migration studies of microbes being one of them

Keywords: indoor air simulator

Details

Level of availability: Industrial prototype

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Health - air quality

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Visqueen - High Performance Radon Barrier

Technology Contact Point

Name: http://www.visqueenbuilding.co.uk/product_detail.asp?id=108&sid=160

Organization: Visqueen

Email, website: http://www.visqueenbuilding.co.uk/product_detail.asp?id=108&sid=160

Short description

Max 3 sentences: Visqueen High Performance Radon Membrane is an LDPE un-reinforced membrane. Visqueen High Performance Radon Membrane™ is suitable for use in concrete floors not subject to hydrostatic pressure, in accordance with the relevant clauses of IS 325:Part 2:1995 and of BS CP 102:1973 Code of Practice for protection of buildings against water from the ground. The product can be installed as an over-site membrane, either between a sand blinded hardcore (50mm of sand minimum) bed and the base concrete, or layered on top of high-density insulation (25kg/m³) with a concrete screed layered over it.

Keywords: Radon, Barrier, Protection

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: 1

Main indicators list

1st indicator: Health

Additional information

Comments: Use to satisfy building regulation requirements for radon protection in UK

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Photovoltaic system

Technology Contact Point

Name: Heckert Solar

Organization:

Email, website: www.heckert-solar.com

Short description

Max 3 sentences: A photovoltaic system collect solar radiation and transforms it in electricity. It's typically coupled with an inverter to feed altenating current loads. Depending on the specific installation, it can be connected to the power grid or to a battery system.

Keywords: renewable energy generation, air pollution reduction

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: Yes

Other: -

Main indicators list

1st indicator: Energy - renewable energy production

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Sanivite

Technology Contact Point

Name: SFA SANITRIT S.p.A.

Organization: SFA SANITRIT S.p.A.

Email, website: www.sanitrit.it

Short description

Max 3 sentences: The product is a domestic waste pump that can be used to dump hot and soaped waters, produced in the kitchen. It is portable, so it allows the creation of the kitchen in different rooms of the living place, increasing the comfort of this latter.

Keywords: comfort

Details

Level of availability: Commercially available

Building type applicable:

Office: No

Residential: Yes

Commercial: No

Educational: No

Other: -

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Technology Survey

Basic Information

Title: Innovative energy saving windows

Technology Contact Point

Name: Tadeusz Mozerski- Evolution Department Manager

Organization: Sokolka Okna i Drzwi S.A.

Email, website: tmozerski@sokolkasa.pl, www.sokolkasa.pl

Short description

Max 3 sentences: Constructional and functional innovative wood frame windows and wood-aluminium frame windows. They contain 2-4 low emission panes with space between panes filled with argon.

Keywords: energy saving, acoustic insulation

Details

Level of availability: Commercially available

Building type applicable:

Office: Yes

Residential: Yes

Commercial: Yes

Educational: No

Other: -

Main indicators list

1st indicator: Energy - Warmth Infiltration Indicator

2nd indicator: Health - Acoustic Infiltration Indicator

Additional information

Comments: Line of innovative windows contain 9 types, additionally was created calculator which energy savings and decrease of pollution emission.