

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Active Noise Control in Ventilation Systems

R&D Contact Point

Organization: Blekinge Institute of Technology

Address: SE-371 79 Karlskrona, Sweden

Email: martin.larsson@bth.se

Website: <http://www.bth.se/fou/Forskinfo.nsf/all/a4d08437e2b436f5c12575120052135d>

Short description

Max 3 sentences: This research is focused on applying active noise control technique to noise generated in ventilation systems.

Keywords: ventilation systems , noise control

Expected results: Applying Active noise control in ventilation systems with the purpose of reducing flow induced noise in the microphone signals, acoustic feedback between the control loudspeaker and reference microphone and standing waves inside the ducts

Main indicators list

1st indicator: Comfort-Acoustic comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: ASTM D6670 - 01(2007) Standard Practice for Full -Scale Chamber Determination of Volatile Organic Emissions from Indoor Materials/Products

R&D Contact Point

Organization: ASTM International

Address: ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA

Email:

Website: <http://www.astm.org/>

Short description

Max 3 sentences: This practice provides guidelines for using a full-scale environmental chamber for testing large materials and full-scale material systems/assemblies. Specifically it determines VOCs emission rates over a period of time under environmental and product usage conditions that are typical of those found in office and residential buildings.

Keywords: determination , VOCs , emissions

Expected results: testing of VOC emissions during the application process (for example, painting), or other related sources; scaleup methods development; studying of the interaction between sources and sinks, and validating source/sink models which are the basis for IAQ prediction; testing of interactions between source emissions and other compounds in the air.

Main indicators list

1st indicator: Health-VOCs emissions

1st indicator: Safety-VOCs emissions

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: IAQ Design Tools for Schools

R&D Contact Point

Organization: U.S. Environmental Protection Agency

Address: U.S. EPA/Office of Radiation and Indoor Air Indoor Environments Division 1200
Pennsylvania Avenue, NW Mail Code 6609J Washington, DC 20460

Email:

Website: <http://www.epa.gov/iaq/schooldesign/>

Short description

Max 3 sentences: IAQ Design Tools for Schools provides both detailed guidance as well as links to other information resources to help design new schools as well as repair, renovate and maintain existing facilities.

Keywords: schools , construction

Expected results: School designing with priorities, such as energy efficiency, indoor air quality, day-lighting, materials efficiency, and safety, and doing so in the context of tight budgets and limited staff.

Main indicators list

1st indicator: Health-indoor air quality

1st indicator: Safety-indoor air quality

1st indicator: Energy-energy efficiency

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: IAQ Building Education and Assessment Model (I-BEAM)

R&D Contact Point

Organization: U.S. Environmental Protection Agency

Address: U.S. EPA/Office of Radiation and Indoor Air Indoor Environments Division 1200 Pennsylvania Avenue, NW Mail Code 6609J Washington, DC 20460

Email:

Website: <http://www.epa.gov/iaq/largebldgs/i-beam/index.html>

Short description

Max 3 sentences: I-BEAM is a guidance tool designed for use by building professionals and others interested in indoor air quality in commercial buildings. I-BEAM contains text, animation/visual, and interactive/calculation components that can be used to perform a number of diverse tasks.

Keywords: buildings , design

Expected results: IAQ improvement within budget; Reduction of liability exposure to indoor air quality complaints; and, Improvement of the marketability of the building and rental space

Main indicators list

1st indicator: Health-indoor air quality

1st indicator: Safety-indoor air quality

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: BEES (Building for Environmental and Economic Sustainability) software

R&D Contact Point

Organization: National Institute of Standards and Technology

Address:

Email: sunder@nist.gov

Website: <http://www.bfrl.nist.gov/oe/software/bees/>

Short description

Max 3 sentences: Bees is a software that brings a powerful technique for selecting cost-effective, environmentally-preferable building products. The tool is based on consensus standards and designed to be practical, flexible, and transparent.

Keywords: buildings , construction , environmentally-praferable

Expected results: Buildings with environmetally-preferable products while economic aspects are also taken into account .

Main indicators list

1st indicator: Health-environmentally friendly products

1st indicator: Economic indicators for the indoor environment

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Healthy and Sustainable Buildings Program

R&D Contact Point

Organization: National Institute of Standards and Technology

Address:

Email: hunter.fanney@nist.gov

Website: http://www.bfrl.nist.gov/goals_programs/prgmHSB.htm

Short description

Max 3 sentences: The goal of this Program is to provide the measurement science that will enable the development, deployment, and use of building energy technologies that will move the Nation towards Net-Zero Energy Buildings while providing a healthy, productive, and safe indoor environment.

Keywords: energy , cost-effective , buildings

Expected results: Use of next-generation building energy technologies needed to achieve Net-Zero Energy but also cost-effective buildings.

Main indicators list

1st indicator: Health-indoor environment quality

1st indicator: Economic indicators for the indoor environment

1st indicator: Energy-Net zero energy buildings

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Indoor Environment Research

R&D Contact Point

Organization: LBNL

Address:

Email: RCDiamond@lbl.gov

Website: <http://eetd.lbl.gov/ie/>

Short description

Max 3 sentences: The Indoor Environment Department conducts a broad program of research, technology development and dissemination activities directed toward improving the health, comfort and energy efficiency of the indoor environment. Our work focuses on reducing the energy used for thermally conditioning and distributing ventilation air in buildings, improving indoor air quality (IAQ), thermal comfort and the health and productivity of building occupants, and understanding human exposures to environmental pollutants found in indoor and outdoor air.

Keywords: health , comfort , energy efficiency

Expected results:

Main indicators list

1st indicator: Health-indoor environment quality

Additional information

Comments: This is one of the preeminent research centers for buildings and energy efficiency. This is their general web page. It provides links to the individual research groups and their topics.

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Indoor Air Quality Guide: Best Practices for Design, Construction, and Commissioning

R&D Contact Point

Organization: ASHRAE

Address:

Email: mvaughn@ashrae.org

Website: <http://www.ashrae.org/technology/page/678>

Short description

Max 3 sentences: This project started in November 2006 and the document is expected to be developed over a 36 month (3 year) time line. The final result will be the Indoor Air Quality Guide: Best Practices for Design, Construction, and Commissioning for commercial and institutional buildings along with an educational outreach effort.

Keywords: Indoor Air Quality , guidance document

Expected results: The guidance document will assist building professionals in their efforts to improve indoor air quality (IAQ) by providing practical guidance on best practices for IAQ in all phases of building design and construction including those that affect operation and maintenance.

Main indicators list

1st indicator: Health-indoor air quality

Additional information

Comments: ASHRAE finances research projects (carried out by research groups at universities, National Labs, or industrial labs) related to heating, cooling and ventilation of buildings.

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: SPARC

R&D Contact Point

Organization: University of Reading

Address: Reading

Email: sparc-network@lists.reading.ac.uk

Website: www.sparc.ac.uk

Short description

Max 3 sentences: Extensive research and practitioner network related to the needs of elderly (and disabled) people in the UK. The network holds regular events and focusses on information sharing and development of research.

Keywords: networking , elderly

Expected results: Networking in research

Main indicators list

1st indicator: Accessibility- Accessibility of buildings for elderly people

1st indicator: Health-health of elderly people

1st indicator: Comfort-comfort of disabled people

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Bauprodukte: Schadstoffe und Gerüche bestimmen und vermeiden. Ergebnisse aus einem Forschungsbericht

R&D Contact Point

Organization:

Address:

Email:

Website: www.umweltdaten.de/publikationen/fpdf-l/3123.pdf

Short description

Max 3 sentences: Building Products: Contamination and smell collected and avoided.

Keywords: bioengineering , indoor health and comfort , building products

Expected results: More information about health and comfort in indoor environments specific to building products used

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Raumakustik und passive Klimatisierung

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: room acoustic and passive climatisation interaction between room acoustic and passive climatisation, acoustic indoor quality, user specific room acoustic design, possible solutions

Keywords: room acoustic , climatisation

Expected results: possible solutions for specific indoor environemnts: conference room

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Raumakustisches Monitoring in passiv klimatisierten und bauteilaktivierten Gebäuden

R&D Contact Point

Organization:

Address:

Email:

Website: www.enob.info/fileadmin/media/Publikationen/EnBau/Raumakustisches_Monitoring_Hennings.pdf

Short description

Max 3 sentences: room acoustic monitoring in passiv climatisated buildings. research of buildings with passiv cooling.

Keywords: room acoustic

Expected results: Expected results: with passiv climatisation and room acoustic specific measures are good results achievable. conference room

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Gips-Zeolith-Platten zur Verbesserung der Innenraumluftqualität Teil 1

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: Gypsum-zeolite-plates for improvement of indoor quality development of new building products e.g. gypsum based plates with calcium-sulphate-dihydrate-clinoptilolith production, basis of building physical phenomene

Keywords: building products , indoor quality

Expected results: Reduction of concentration of specific indoor air contaminant

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Gips-Zeolith-Platten zur Verbesserung der Innenraumlufthqualität Teil 2

R&D Contact Point

Organization: -

Address:

Email:

Website:

Short description

Max 3 sentences: development of new gypsum plates (e.g. based on calcium-sulphate-dihydrate-clinoptilolith, determination of contaminant absorption in laboratory and real buildings

Keywords: building products , indoor quality , building products

Expected results: reduction of concentration of contaminated indoor air quality

Main indicators list

1st indicator: Health

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Feinstaub im Innenraum - ein unterschätztes problem

R&D Contact Point

Organization: -

Address:

Email:

Website:

Short description

Max 3 sentences: Indoor contamination of respirable dust - an underestimated problem Research of respirable dust contamination in indoor environments regards to fittings and use

Keywords: building products , indoor quality , building products

Expected results: Use of clean floor materials will result higher contamination of respirable dust compared to carpet floors

Main indicators list

1st indicator: Health

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Optimierung der Luftstromrate in Gebäuden

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: Optimisation of air flow rate in buildings. Optimisation of air flow rate in buildings regards to overall costs, indoor climate, health and efficiency

Keywords: building products , health , ventilation

Expected results:

Main indicators list

1st indicator: Health

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Der Latentwärmespeicherestrich

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: The latent heat accumulator pavement Simulations of specific use of latent heat accumulator pavement and the interaction with the indoor climate

Keywords: energy , building product , comfort

Expected results: Increase of energy accumulation, protection of summer peak time heating, increased comfort, energy savings

Main indicators list

1st indicator: Health

1st indicator: Energy

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Aktive und passive Temperierung eines Stahldeckensystems

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: active and passive tempering of steel ceiling system, use of PCM and passive ceiling system and their interaction with indoor temperature behaviour, measuring in testing facilities and numerical calculations

Keywords: heating , cooling , building products

Expected results: summer peak time heating will be influenced positively, low energy consumption, low maintainance costs and low costs of installation

Main indicators list

1st indicator: Comfort

1st indicator: Energy

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Bedarfsgerechtes Lüften - Volumenstromregelung und Fensteröffnungszustand

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: adjusted ventilation to the needs - air flow regulation and window opening positions, two innovative approaches for mechanical ventilation for residential buildings, theorie into praxis analysis of buildings over three years

Keywords: low energy , ventilation , testing

Expected results: low heating energy requirements, mechanical ventilation adjusted to daily demand

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Komfort der Zukunft - "inhaus2" in Duisburg

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: comfort for the future - "inhaus2" in Duisburg, new indoor concepts, building products and technical installations for offices and hotels, focus on health and maintainance, solutions for acoustic performance of ceilings

Keywords: health , acoustic , building products

Expected results:

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Raumkühlung mit Latentwärmespeicher

R&D Contact Point

Organization:

Address:

Email:

Website:

Short description

Max 3 sentences: Indoor cooling with latent heat accumulator, use of latent heat accumulator, choice of phase materials, cooling system, experimental studies

Keywords: comfort , building product , testing

Expected results: reduction of indoor temperatur by 2.5K by using a specific accumulator mass of 1,7 kg/m2, due to latent heat accumulator an indoor cooling is possible via outside air

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Indoor Climate

R&D Contact Point

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

Address: Niels Koppels Alle, Building 402, 2800 Kgs. Lyngby, Denmark

Email: akm@byg.dtu.dk

Website: www.byg.dtu.dk

Short description

Max 3 sentences: Design of uniform environment for an "average" person has been in the basics of the indoor climate research. However, since requirements of people are different this strategy has not potential to provide each occupant with preferred environment. Human response to non-uniform individually controlled environment needs to be studied and applied in practice.

Keywords: human response , non-uniform environment , individual control

Expected results: to achieve comfortable and preferred environment for each occupant leading to increased work performance, satisfaction and quality of life.

Main indicators list

1st indicator: Comfort

1st indicator: Health

1st indicator: Economic indicators for the indoor environment

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Breathing building envelope

R&D Contact Point

Organization: ÉMI

Address: 1113 Budapest, Diószegi út 37., Hungary

Email: kmatolcsy@emi.hu

Website: www.emi.hu

Short description

Max 3 sentences: We are design nowadays high airtight buildings with mechanical ventilation. Other alternative could be intelligent "Breathing" structure mainly for lightweight construction.

Keywords: Breathing building envelope

Expected results: Securing decent indoor air quality and energy savings without mechanical ventilation.

Main indicators list

1st indicator: Other-Natural ventilation

1st indicator: Health

1st indicator: Economic indicators for the indoor environment-No cost system for ventilation

Additional information

Comments: This would be a radically new principle for ventilation

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Prof. (FH) Dr.-Ing.

R&D Contact Point

Organization: University of applied Sciences >Vorarlberg

Address: Hochschulstr. 1

Email: scj@fhv.at

Website: www.fhv.at

Short description

Max 3 sentences: We are working in the area of Living Lab.

Keywords: Living Lab , User centricity

Expected results: New ways for user/customer integration in the development process.

Main indicators list

1st indicator: Comfort-Participation of user in the different planning phases

1st indicator: Comfort

Additional information

Comments: For me it is not 100% clear where this questionnaire should lead to.

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Integrated Platform

R&D Contact Point

Organization: SiTI

Address: Via P. Carlo Boggio 61, Turin (Italy)

Email: olivero@siti.polito.it

Website: 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

Expected results: Realization of some prototypes of the integrated platform able to perform a preliminary environmental monitoring in a specific application (e.g. museums). The prototypes can be easily adapted when installed in a different environment.

Main indicators list

1st indicator: Health-indoor air quality

1st indicator: Comfort

Additional information

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

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Collectief onderzoek - Ontwikkeling van model voor de evaluatie van de toegankelijkheid, brandveiligheid en evacuatie voor personen met beperkingen in de Horeca

R&D Contact Point

Organization: BBRI
Address: Avenue P. Holoffe, 21 B-1342 Limelette
Email: stefan.danschutter@bbri.be
Website:

Short description

Max 3 sentences: This project aims to develop a model to evaluate the evacuation of disabled people (looking at the accessibility problem) in hotels and restaurants in case of fire.
Keywords: Safety , Accessibility , Fire safety
Expected results: An model to evaluate : the easiness of evacuation of disabled people in hotels and restaurants in case of fire as well as an assessment of the fire security.

Main indicators list

1st indicator: Safety
1st indicator: Accessibility

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Energy requirements

R&D Contact Point

Organization: Innovation Center Iceland

Address: Keldnaholt, 112 reykjavik, Iceland

Email: bjorn.m@nmi.is

Website: www.nmi.is

Short description

Max 3 sentences: Evaluation of energy requirements for buildings; both measurement and calculation (modelling)

Keywords: energy requirements , heating , thermal performance

Expected results: Information to the public regarding applicable, economical ways to lower energy needs in homes and offices

Main indicators list

1st indicator: Energy-Thermal properties of buildings

1st indicator: Health

1st indicator: Comfort-operational temperature

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Project 2B08077

R&D Contact Point

Organization: Charles University in Prague

Address:

Email:

Website:

Short description

Max 3 sentences: Characterization of air pollution sources in indoor environment

Keywords: Air quality , indoor environment , health

Expected results:

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Project NJ5907

R&D Contact Point

Organization: District Hygiene station in Teplice

Address:

Email:

Website:

Short description

Max 3 sentences: Characterization of Indoor Air Pollution of Residential House Influenced by Different Activities. Comparison with Outdoor Air Pollution.

Keywords: indoor air pollution , smoking , ventilation

Expected results:

Main indicators list

1st indicator: Health

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Project GA101/07/1361

R&D Contact Point

Organization: Institute of Chemical Process Fundamentals of the ASCR, v.v.i.

Address:

Email:

Website:

Short description

Max 3 sentences: Evaluation of dynamics of aerosol particles in indoor environment

Keywords: indoor aerosols , modelling

Expected results:

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Institutional research plan MSM 210000011

R&D Contact Point

Organization: CTU in Prague

Address:

Email:

Website:

Short description

Max 3 sentences: Environmental Engineering of Buildings. HVAC (heating, ventilating and air-conditioning) equipment for microclimate creation and protection, air pollution control, noise and vibration control, development of simulation methods for HVAC equipment operation, renewable energy sources, equipment for intelligent buildings. Indoor and outdoor air pollution control, airflow in ventilated space, indoor dust contamination. Aerodynamic sources of noise in air-conditioning devices, noise attenuators for ventilating and burning equipment, control of noise radiated from HVAC equipment into outdoor and indoor environment. Development of HVAC equipment for microclimate creation and protection in residential and commercial buildings from the hygienic and safety point of view with focus on energy efficient improvement of indoor comfort in intelligent buildings.

Keywords: heating , noise control , intelligent buildings

Expected results:

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Institutional research plan MSM6840770005

R&D Contact Point

Organization: CTU in Prague

Address:

Email:

Website: <http://aplikace.isvav.cvut.cz>

Short description

Max 3 sentences: This project has paid a special attention to protective barriers – thermal and noise insulating, or anti-radon for housing development, respectively, or more precisely, to the barriers on the base of clay minerals used against the spreading of contamination from various landfills, waste dumps, sedimentation basins, disposal sites, including high level radioactive waste materials. The common point of view for engineering structure has been the process EIA- an assessment of the impact of constructions on the environment.

Keywords: Sustainable Construction

Expected results:

Main indicators list

1st indicator: Comfort

1st indicator: Safety

1st indicator: Energy

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Result RIV/75010330:_____/03:00005115

R&D Contact Point

Organization: Ministry of Health of the Czech Republic

Address:

Email:

Website: <http://aplikace.isvav.cvut.cz>

Short description

Max 3 sentences: Microclimatic parameters of the indoor environment in buildings in the course of extreme temperatures of the outdoor air

Keywords: indoor environment , thermal comfort , thermal stress

Expected results:

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Výsledek RIV/75010330: _____/03:00005361

R&D Contact Point

Organization: Ministry of Health of the Czech Republic

Address:

Email:

Website: <http://aplikace.isvav.cvut.cz>

Short description

Max 3 sentences: Hospital indoor environment: Screening for microorganisms and particulate matter (2003)

Keywords: indoor environment

Expected results:

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Result of RIV/75010330:_____/05:00006227

R&D Contact Point

Organization: Ministry of Health of the Czech Republic

Address:

Email:

Website: <http://aplikace.isvav.cvut.cz>

Short description

Max 3 sentences: Requirements for clean spaces in hospitals and the ways of their verification

Keywords: indoor environment , hospitals

Expected results:

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Result of RIV/75010330:_____/06:00006742

R&D Contact Point

Organization: Ministry of Health of the Czech Republic

Address:

Email:

Website: <http://aplikace.isvav.cvut.cz>

Short description

Max 3 sentences: Intervention in the indoor environment. The indoor air contaminants concentration is always higher than this in outdoor. The steps for improvement of the indoor environment quality.

Keywords: indoor environment

Expected results:

Main indicators list

1st indicator: Comfort

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Result of RIV/68407700:21110/05:01109482

R&D Contact Point

Organization: CTU in Prague

Address:

Email:

Website: <http://aplikace.isvav.cvut.cz>

Short description

Max 3 sentences: Indoor pollutant concentration is more significant for human health than outdoor atmosphere because people spend most of their time in buildings. There is pollutant concentration enhancement, relative humidity, mould reproduction and rise of environment not corresponding to human organism needs because of insufficient ventilation. Overview of selected indoor environment components and pollutants is stated in this paper.

Keywords: indoor air quality , indoor environment

Expected results:

Main indicators list

1st indicator: Comfort

1st indicator: Health

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Result of RIV/68407700:21110/06:01117540

R&D Contact Point

Organization: Doležilková Hana/CTU in Prague

Address:

Email:

Website: <http://aplikace.isvav.cvut.cz>

Short description

Max 3 sentences: Interior microclimate formation performs required indoor environment formation. List of selected components of indoor environment and pollutants which influence indoor air quality. Regulation of indoor environment for Czech Republic and foreign countries, possibilities of indoor air quality assessment.

Keywords: Indoor Air Quality , Indoor Environment , Relative Humidity

Expected results:

Main indicators list

1st indicator: Health

1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: L'ambiente domestico informatizzato: progetto e verifica di integrazione di utente, tecnologia e prodotto

R&D Contact Point

Organization: Polytechnic of Milan

Address:

Email:

Website:

Short description

Max 3 sentences: This R&D project, approved within an Italian national financing programme (PRIN), aims at supporting the integration of home automation systems within the domestic environment. The main objective of the project is to conduct research activities in order to assure a functional integration of domotic systems in order for them to be easily usable.

Keywords: domotics , home comfort

Expected results: Realization of two intelligent entities based on multiagent systems to be integrated within the domestic space; analysis of human responses to interaction with the proposed technologies in order to develop their proper integration; define guidelines for the design of the automated domestic space.

Main indicators list

1st indicator: Comfort

Additional information

Comments: The following web page contains a summary of the project in Italian:
<http://cercauniversita.cineca.it/php5/prin/cerca.php?codice=2003089445>

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Spazi e arredi delle residenze per anziani, disabili e senza casa

R&D Contact Point

Organization: Polytechnic of Milan

Address:

Email:

Website:

Short description

Max 3 sentences: The main purpose of this R&D project is to define experimental solutions in the building and interior decoration field that, while contrasting the loss of autonomy and integration of individuals in different living contexts, can function as reliable examples on the socioeconomic, technical and cultural levels, in order to correct the perduring inadequacy of the residential offer.

Keywords: home comfort

Expected results:

Main indicators list

1st indicator: Comfort-comfort of older persons

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Mr.

R&D Contact Point

Organization: E2B European Initiative

Address: Brussels

Email: stefano.carosio@dappolonia.it

Website: <http://www.e2b-ei.eu/>

Short description

Max 3 sentences: The overall objective of E2B EI is to deliver, implement and optimise building and district concepts that have the technical, economic and societal potential to drastically decrease the energy consumption and reduce CO2 emissions due to existing and new buildings at the overall scale of the European Union.

Keywords: PPP , Energy , buildings

Expected results: The E2B EI will speed up research on key technologies and develop a competitive industry in the fields of energy efficient processes products and services, with the main purpose of reaching the goals set forth for 2020 and 2050 to address climate change issues and contribute to improve EU energy independence thereby transforming these challenges into a business opportunity.

Main indicators list

1st indicator: Energy-Consumption

1st indicator: Energy

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: A study on the relation between allergy/asthma and indoor air quality in homes in Bulgaria, 2003-2005

R&D Contact Point

Organization: Technical University of Sofia
Address: 8 Kliment Ohridski blvd, 1000 Sofia, Bulgaria
Email: pstankov@tu-sofia.bg
Website: www.cfdc.tu-sofia.bg

Short description

Max 3 sentences: Mapping housing conditions in Scandinavia and Bulgaria regarding indoor environments and its associations to allergies, airways infections and SBS.
Keywords: Allergy/asthma , IAQ
Expected results: Identification of the role of environmental exposures related to ventilation, "dampness", and pets in homes and health effects such as allergies, airways infections and SBS.

Main indicators list

1st indicator: Health
1st indicator: Comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Integrated Design Optimization of building energy performance and indoor environment

R&D Contact Point

Organization: Technical University of Sofia
Address: 8 Kliment Ohridski blvd, 1000 Sofia, Bulgaria
Email: pstankov@tu-sofia.bg
Website: www.cfdc.tu-sofia.bg

Short description

Max 3 sentences: Development and verification of an Integrated Simulation System (ISS) for optimisation of buildings' energy performance and indoor environment.
Keywords: Integrated Simulation System , Building energy performance , Indoor environment
Expected results: Integration of the research areas for BSim (Building Simulation), CFD (Computational Fluid Dynamics) and Indoor Climate are achieved through implementation of physical models and numerical techniques which are able to account for this complex and innovative integration.

Main indicators list

1st indicator: Comfort
1st indicator: Energy
1st indicator: Economic indicators for the indoor environment

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Field Investigation of Ventilation Performance and Indoor Air Quality in Typical Irish Dwellings

R&D Contact Point

Organization: University College Dublin, School of Architecture, Landscape and Civil Engineering
Address: UCD Urban Institute Ireland, Richview, University College Dublin, Clonskeagh Drive, Dublin 14
Email: Liyan.guo@ucd.ie
Website:

Short description

Max 3 sentences: In this Ph.D. thesis the indoor environment of typical Irish houses are analysed with a combination of field measurement, questionnaire survey, full-scale in-house experiment and statistical analysis.

Keywords: Field investigation , indoor air quality , ventilation

Expected results: Better understanding of the quality of the indoor environment in typical Irish houses and the performance of current domestic ventilation strategies. To address the knowledge gap which arises when formulation ventilation guidelines.

Main indicators list

1st indicator: Health

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: DOCET

R&D Contact Point

Organization: CNR ITC

Address:

Email:

Website: <http://www.docet.itc.cnr.it/>

Short description

Max 3 sentences: DOCET is a software simulation tool for the energy certification of existing residential buildings and apartments, developed on the basis of CEN methodologies. The tool is characterized by easiness of data input and repeatability of analyses, while keeping accuracy of results.

Keywords: software , certification

Expected results:

Main indicators list

1st indicator: Energy

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Ensuring cleanliness of air handling systems

R&D Contact Point

Organization: VTT

Address: Vuorimiehentie 5, 02150 Espoo, Finland

Email: keijo.kovanen@vtt.fi

Website:

Short description

Max 3 sentences: The project investigated where contamination occurs in air handling units and how to prevent them. Also, a method to determine the cleanliness of the ducts by visual inspection is presented

Keywords: air handling systems , cleanliness , visula inspection

Expected results:

Main indicators list

1st indicator: Health-air quality

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Reference values for building material emissions and indoor air quality in residential buildings

R&D Contact Point

Organization: VTT

Address: Vuorimiehentie 5, 02150 Espoo, Finland

Email: helena.jarnstrom@vtt.fi

Website: <http://www.vtt.fi/inf/pdf/publications/2007/P672.pdf>

Short description

Max 3 sentences: The project studied IAQ and material emissions in newly finished residential buildings and during the first year of occupancy. Low emitting, M1 classified materials were used on all surfaces. Based on the results, reference values were presented for 6- and 12 month old buildings

Keywords: Indoor Air Quality , material emission , reference values

Expected results:

Main indicators list

1st indicator: Health-air quality

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Semi volatile organic compounds and flame retardants. Occurrence in indoor environments and risk assessment for indoor exposure

R&D Contact Point

Organization: VTT

Address: Vuorimiehentie 5, 02150 Espoo, Finland

Email: helena.jarnstrom@vtt.fi

Website: <http://www.vtt.fi/inf/pdf/tiedotteet/2009/T2486.pdf>

Short description

Max 3 sentences: The project investigated the occurrence of semi volatile compounds, SVOCs incl. flame retardants in indoor environments in Finland. SVOC emissions from 13 typical building products were measured

Keywords: SVOC , flame retardant , material emission

Expected results:

Main indicators list

1st indicator: Health-air quality,material emission

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: Guidebook for life-cycle commissioning of buildings energy

R&D Contact Point

Organization: VTT

Address: Vuorimiehentie 5, 02150 Espoo, Finland

Email: jorma.pietilainen@vtt.fi

Website:

Short description

Max 3 sentences: In the guidebook (in Finnish) general procedure for ToVa activities is described covering the whole life cycle of the building. ToVa means clear definition, capturing and documentation of end user requirements and their compliance assessment and verification in all the phases from design through realisation to the operation and use. In the guidebook special focus has been put on the indoor air quality and energy efficiency.

Keywords: guidebook , energy efficiency , indoor climate

Expected results:

Main indicators list

1st indicator: Health-air quality

1st indicator: Comfort-thermal comfort

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: LENSE

R&D Contact Point

Organization: European Commission

Address:

Email: info@lensebuildings.com

Website: <http://www.lensebuildings.com/index.asp?id=1>

Short description

Max 3 sentences: building. ToVa means clear definition, capturing and documentation of end user requirements and their

Keywords: methodology , sustainability

Expected results: This methodology will allow for future labelling of buildings, in analogy with the Energy Performance Directive. The work should result in increased awareness of the European stakeholders and will allow adequate policy implementation on sustainable construction.

Main indicators list

1st indicator: Comfort-Acoustic, visual, thermal comfort

1st indicator: Accessibility

1st indicator: Economic indicators for the indoor environment

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: EcoProP Tool
R&D Contact Point

Organization: VTT
Address: Kemistintie 3, 02044 VTT, Finland
Email: pekka.huovila@vtt.fi
Website: <http://cic.vtt.fi/ecoprop/>

Short description

Max 3 sentences: Software tool for systematic management of building project requirements. It helps to fulfil customer expectations by describing the properties of the final product. EcoProP can also estimate life-cycle costs and environmental impacts. It has been used for office buildings, schools, nurseries, residential developments and shopping centres.

Keywords: systematic requirements management , requirement profile, design brief , environmental pressure, life cycle cost

Expected results: Design brief support

Main indicators list

1st indicator: performance indicators: indoor conditions, service life, adaptability, safety, comfort, accessibility, usability

1st indicator: conformity indicators: location, spatial systems, services

1st indicator: life cycle cost and environmental pressure indicators

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: CRISP (Construction and City related Sustainability Indicators) 2000-03

R&D Contact Point

Organization: VTT
Address: Kemistintie 3, 02044 VTT, Finland
Email: pekka.huovila@vtt.fi
Website: <http://crisp.cstb.fr/>

Short description

Max 3 sentences: CRISP was a FP5 Thematic Network on sustainability indicators to measure the sustainability of construction projects within the urban built environment.

Keywords: sustainability indicators and indicator systems , construction and city related sustainability indicator classification , indicator database

Expected results: Construction and city related indicator system and indicator database

Main indicators list

1st indicator: environmental indicators: Natural raw materials, Biodiversity, Energy, Environmental pollution, Land use

1st indicator: economic indicators: Economic development and finance, Production and consumption, Urban and community services and responses

1st indicator: social indicators: Access, Safety & security, Health and comfort, Socio-economic well-being, Community responses and human capacity, Cultural heritage

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: TISSUE (Trends and Indicators for Monitoring the EU Thematic Strategy on Sustainable Development of Urban Environments) 2004-05

R&D Contact Point

Organization: VTT
Address: Kemistintie 3, 02044 VTT, Finland
Email: pekka.huovila@vtt.fi
Website: <http://tissue.vtt.fi/>

Short description

Max 3 sentences: TISSUE was a FP6 STREP that defined a set of indicators feasible and valid for the monitoring of sustainable development of urban environment.

Keywords: sustainable urban development indicators , trends to measure the progress towards sustainable development of the urban environment , indicator browser

Expected results: Indicator browser for sustainable development of urban environments

Main indicators list

1st indicator: Sustainable Urban Construction: energy consumption, share of sustainability classified buildings, construction and demolition waste

1st indicator: Sustainable Urban Design, Sustainable Urban Management

1st indicator: Sustainable Urban Transport, Sustainable Urban Environment

Additional information

Comments: -

PERFECTION PROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: ManuBuild (Open Building Manufacturing) 2005-09

R&D Contact Point

Organization: VTT
Address: Kemistintie 3, 02044 VTT, Finland
Email: pekka.huovila@vtt.fi
Website: <http://www.manubuild.org>

Short description

Max 3 sentences: ManuBuild is a recently completed FP6 IP that contained a task on performance metrics, covering process, product and organisational aspects in value driven manufactured housing

Keywords: performance metrics , value driven processes , open industrial manufacturing

Expected results: Set of value indicators

Main indicators list

1st indicator: Process indicators: financial model, trouble free LC process, adaptability of design

1st indicator: Product indicators: sustainability assessment label, diversity of functions, risk level

1st indicator: Organisational indicators: skills and competences, use of BI tools, solvency ratio of provider

Additional information

Comments: -

PERFECTIONPROJECT

Indoor Environment Quality Research Survey

Basic Information

Title: CREDIT (Construction and Real Estate – Development of Indicators for Transparency) 2007-10

R&D Contact Point

Organization: VTT
Address: Kemistintie 3, 02044 VTT, Finland
Email: pekka.huovila@vtt.fi
Website:

Short description

Max 3 sentences: CREDIT is an ongoing Nordic Baltic research project on covering product, process, location, building performance, economic, environmental and social impacts, real estate business and user experience indicators.

Keywords: key performance indicators , performance benchmarking , case studies

Expected results: 1) Performance Indicator Framework 2) Key Performance Indicators 3) Indicator Benchmarking Tools 4) Case Studies 5) Recommendations

Main indicators list

1st indicator: Indoor environment and health

1st indicator: Adaptability, usability, safety

1st indicator: Feelings and sensations

Additional information

Comments: The project will be completed by end January 2010. The partners are from dk, fi, no, se, is, ee, lt.