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Projects, Grants (thematically arranged)

03_Schools and ventilation

2013 – 2015



Pupils' and teachers' perception and acceptance of newly installed mechanical ventilation systems in renovated classrooms in the administrative district Swabia in Bavaria, Germany.

Funding: Technology Network Bavarian Swabia, Germany at Augsburg University of Applied Sciences

user perception and acceptance of newly installed mechanical ventilation systems, measurement of subjective and objective characteristics of the indoor climate in retrofitted classrooms with mechanical ventilation systems, statistical data collection on retrofitting measures in schools in the administrative district of Swabia, Bavaria

2010 - 2012

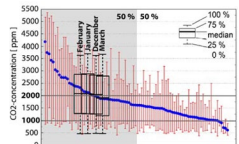


Historical Stack Ventilation System in a Primary School in Munich Potential and Measurements

contracted by the city of Munich at Augsburg University of Applied Sciences

determination and assessment of air quality and temperature in 4 classrooms by means of measurements: room 1 with window ventilation, room 2 with stack ventilation by means of an exhaust air shaft and room 3 and 4 with stack ventilation by means of a supply and an exhaust air shaft

2010 - 2012



Future ventilation concepts and building standard for Munich schools

contracted by the Fraunhofer Institute for Building Physics, Holzkirchen (for the city of Munich) later subcontracted to Augsburg University of Applied Sciences when I changed jobs

how should future schools in Munich be designed? Ventilation and overheating assessment considering passive, active design features and sources of energy
comparison of different ventilation concepts for classrooms by means of dynamic thermal building simulation, assessment of the energy demand of the different concepts on the basis of comparable air quality and comparable thermal comfort

2006 - 2007

Integral Energetic Retrofitting of a School Building in Miesbach/ Upper Bavaria, Germany

funded by the German Environment Foundation at the Fraunhofer Institute for Building Physics

measurement analysis and interpretation of results

2006 - 2010



Hybrid Ventilation Systems for Schools

contracted by the Fraunhofer Institute for Building Physics

funded by the Federal Ministry of Economics and Technology (BMWi), Germany at the Fraunhofer institute for Building Physics project reference no. 0327387A

co-operation project title: Heating energy saving, thermal comfort and good indoor air quality in school buildings by means of hybrid ventilation.
co-operation project: Fraunhofer Institute for Buildings Physics, RWTH Aachen, University of Technology Berlin, Wildeboer Bauteile GmbH

co-operation project management, project management at the Fraunhofer Institute for Building Physics, test design concept: investigation of different façade opening types, suitability for demand controlled ventilation of classrooms, development of a control algorithm for the automation of the façade openings

2006

Integral Energetic Retrofitting of a School Building in Osnabrück/ Lower Saxony, Germany

funded by the German Environment Foundation at the Fraunhofer Institute for Building Physics

measurement analysis and interpretation of results

1995 - 1999



Exemplary Energetic Retrofitting of a School Building (MOSES) in Stuttgart-Plieningen, Germany

contracted by the city of Stuttgart, supported by Industry (Buderus, Capatect, Grünzweig und Hartmann, Honeywell/Centra, Jung, Junkers, Kermi, Schwenk, Trilux, Weishaupt und Wilo)

funded by by the Federal Ministry of Economics and Technology (BMWi), in co-operation with University of Stuttgart, IKE at the Fraunhofer institute for Building Physics

analysis of the building stock of the school from different years of construction (30ies, 50ies, 70ies), development of a concept for the retrofitting (building envelope and building services), realisation of different insulation systems and daylight controlled electrical lighting