

I. Research group heading/name & full address/affiliation

Building interior climate

UTP University of Science and Technology in Bydgoszcz
Faculty of Civil and Environmental Engineering and Architecture
Av. Prof. S. Kaliskiego 7,
85-796 Bydgoszcz
Poland

II. Name of the group's leader with a short BIO (CV).

PhD Magdalena Nakielska

Date of birth: 20th December 1976
Nationality: Polish
Telephone: (+48) 604-085-145
E-mail: magdalena.nakielska@gmail.com

EDUCATION DETAILS:

2015-2016	Postgraduate Studies "Energy-efficient construction from renewable energy sources"
2015	University of Science and Technology in Bydgoszcz PhD in Civil Engineering
2008	License exam - Designer building structures
2000 – 2003	University of Science and Technology in Bydgoszcz Eng. in Environmental Engineering
1996 – 2001	University of Science and Technology in Bydgoszcz Msc in Civil Engineering

WORK EXPERIENCE:

2001 to present	University of Sciences and Technology in Bydgoszcz, the Department of Heating, Ventilation and Sanitary Engineering
2003 – 2006	Building Designing Office "MASTER" Civil and Structural Engineers, Associated company: Clarke Nicholls & Marcel, Consulting Civil & Structural Engineers, London, England, Position: designer's assistant

Magdalena Nakielska works at the Department of Heating, Ventilation and Sanitary Engineering. PhD thesis on solar chimneys, was the beginning of research of the issues of climate inner rooms. The subject of research interest are solar chimneys as a passive way assisted natural ventilation as well as issues concerning the construction and installation of energy-efficient construction. She is the author of many works in the field of energy performance of buildings and energy audits.

III. Names of the group's members and their research areas/interests.

PhD Krzysztof Pawłowski - civil engineering, building physics, assessment of hygrothermal building condition

PhD Małgorzata Sztubecka - environmental engineering, environmental shaping and protection: soundscape, subjective analysis of recipient feelings

IV. Leading research topic of the group.

Building interior climate

V. Best realizations of the main research topic (brief characteristics or description).

Magdalena Nakielska is the author of many works in the field of energy performance of buildings and energy audits. She done studies of energy dozen public buildings eg. school buildings. The research team participated in the creation of Management Plan low-carbon economy for three municipalities.

The research team participated designing BAIRI building - modern educational and research laboratory in UTP (in progress)

The research team carried out trainings and workshops - energy audit - for members of the Chamber of Civil Engineers in Bydgoszcz, Toruń and Włocławek.

VI. General expression of interests.

This topic includes an analysis of rooms microclimate having regard to people feelings

VII. Specific interests and additional topics of extended interest.

The research team is involved in the following measurements:

- measurements of microclimate interior parameters in existing buildings,
- numerical simulation of flow heat and mass, transfer determine the building's energy requirements, the barrier construction,
- measurements of air parameters,
- noise measurements,
- energy audit calculations

VIII. Other important characteristics of the group.

The research group includes people involved in mutually additional issues related to (follow up) the main topic.

IX. Main group's achievements.

The achievement of the group is an organization that studies the problems of the energy economy shaping the climate inside the building. In view of the multidisciplinary group it is very well with each work. Group participates in interdisciplinary conferences, interested in both architecture, construction and building installations in order to optimize the thermal comfort of the building.

X. 5 selected publications and/or other relevant accomplishments.

1. Nakielska M., Pawłowski K. 2016. Solar chimney as example of passive cooling system in building, Civil and Environmental Engineering, volume 7, no. 1
2. Pawłowski K. 2015. The analysis of physical parameters of external partitions in aspect low energy consumption construction, Building physics problems in the design and exploitation of civil constructions, Publishing Office of Czestochowa University of Technology, Częstochowa
3. Pawłowski K., Nakielska M. 2016. The analysis of physical parameters of external walls and their joints regarding the use of modern heat insulating materials. Civil and Environmental Engineering, volume 7, no. 1
4. Nakielska M. 2015. Solar chimney as energy-efficient ventilation system. Selected problems of the construction industry. Publishing Office of Bydgoszcz University of Science and Technology, Bydgoszcz
5. Sztubecka M., Sztubecki J. 2016. Analysis of the acoustic climate of a spa park using the fuzzy set theory. Open Engineering, volume 6, Issue 1