

ANEXĂ CU ÎNTREBĂRI ȘI RĂSPUNSURI

la procesul verbal al susținerii publice a tezei de doctorat

elaborată de dl / dna dna ing. Cristina-Mariana TĂNASĂ, cu titlul: “STUDY ON BUILDING ENERGY EFFICIENCY USING NUMERICAL SIMULATIONS AND IN SITU MEASUREMENTS”

Conform protocolului de susținere publică a tezelor de doctorat, după susținerea tezei de doctorat de către autor și după prezentarea rapoartelor membrilor comisiei de doctorat, președintele comisiei deschide sesiunea de întrebări din partea membrilor comisiei de doctorat și a publicului.

Întrebările din partea membrilor comisiei de doctorat și răspunsurile candidatului:

1. Prof. Valeriu STOIAN:

Întrebare:

Do you know if there is a procedure to integrate the photovoltaic panels electricity production in the national grid and to be paid for it?

Răspuns:

Currently there is a legal document that deals with this, but a price for that electricity is not established. It is possible and legal to deliver surplus electricity to the grid but you are not paid for it.

2. Prof. Stefano Paolo CORGNATI:

Întrebare:

1. Could you explain which are the most important factors in the building energy model calibration process?

2. Which are the most important sensitivity analysis in the cost optimal study?

Răspuns:

1. Mechanical ventilation rates, infiltration rate and the technical characteristics of the building systems and also the human behaviour related to interior lighting and household appliances.

2. I think that the sensitivity analysis related to the future evolution of energy prices is the most important because it can lead to different cost optimal building solutions.

3. Prof. Daniel DAN:

Întrebare: In Romania there is a new regulation related to the construction sector, which implies the sustainable use of natural resources. What is your opinion about this and which factors should be added to this requirement?

Răspuns:

In my opinion, this requirement, should be related to the the environmental impact of a building and should consider two aspects. The first one should be related to the methods and materials used for construction and the second one related to the building energy consumption throughout the life cycle and at the end of the lifetime. I think that a construction project, should include maybe a life cycle environmental impact indicator, established on a common national guideline and limitations for this indicators should be provided by the Romanian authorities.

4. Prof. Marcela PRADA:

Întrebare:

What do you propose as future research?

Răspuns:

I want to extend the cost optimal studies for all the climatic zones of Romania and on different other building energy efficiency configurations.

Întrebările din partea publicului și răspunsurile candidatului:

1. Drd. Ing. Cristian PETRUȘ:

Întrebare:

In your parametric study, have you varied the percentage of the openings? How do you think it can influence?

Răspuns:

No, for all the investigated scenarios the openings have the same geometry and surfaces. The sizes and orientations of the windows are important in energy efficient buildings because they can lead to optimal solar heat gains but also, if they are not shaded during the summer sunny days, the building can face overheating.

2. Prof. Corneliu BOB

Reccommendation: To complete the analyses by taking into account the all 3 dimensions of sustainability: environmental, economic and social.

3. Prof. Ioan Silviu DOBOȘI:

Întrebare:

You should include the human behaviour in your studies. Do you have such a study?

Răspuns:

Yes, I have some simulations that investigate the influence of the heating temperature setpoint preferred by the building occupants on the energy consumption. The results show that the heating energy consumption can increase significantly if we increase the heating temperature setpoint with just 1°C.

Prezenta Anexă s-a întocmit în două exemplare.

Data: 25.04.2018

PREȘEDINTELE COMISIEI,
Prof.univ.dr.ing.Daniel GRECEA



ÎNTOCMIT,
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