UNIVERSITY of DEBRECEN

PEKÁR IMRE
DOCTORAL SCHOOL OF MECHANICAL ENGINEERING
H-4002 Debrecen, Ótemető str. 2-4.
e-mail: doktori@eng.unideb.hu
website: engphd.unideb.hu

Name of the course:	**Comfort Theory**
Course type:	Optional
Responsible lecturer:	Dr. Ferenc Kalmár
Content:	In the framework of this course, the technical and human parameters influencing thermal comfort are discussed in detail analysing the energy impact of these parameters. The heat balance of the human body, the deterministic and the adaptive thermal comfort model are presented. The discomfort parameters are discussed and analysed: the asymmetric radiation and draught. CO2 emissions as a function of BMR. Measurement of CO2 concentration, and ventilation effectiveness is discussed and analysed. Advantages and disadvantages of personal ventilation, cooling, and heating equipment. Energy and thermal comfort measurements are scheduled in the indoor environment laboratory using the existing ALTAIR advanced personalized ventilation equipment.
Literature:	• K. Parsons, Human thermal comfort, CRC Press, 2019. • C. Rubio-Bellido, Adaptive Thermal Comfort of Indoor Environment for Residential Buildings, Springer Verlag, Singapore, 2021.