**Passive House Planning Package PHPP Advanced**

Familiarise yourself with additional functions of the PHPP! This module enables you to enter more complex residential and non-residential buildings, as well as buildings with mixed use - for both the building envelope and the building services. The input of typical components for larger projects is explained in detail and practised. The possibilities of evaluating efficiency options with the variant calculation are presented as well as the concept of economic comparisons in the PHPP, pre-certification for modernisations carried out step by step and the use of the EnerPHit-Retrofit Plan (ESP).

**Homework:**

Course participants who wish to take the PHPP Expert Examination receive a term paper as an additional practical exercise in the "PHPP Advanced" module. This exercise and the feedback from the trainers ensure practical learning success. Use the processing time of 3 months to simultaneously enter your own projects into the PHPP and thus anchor what you have learned in your everyday professional life.

**3D Data Entry with BIM/SketchUp**

Here you will learn how building properties generated with Building Information Modelling software (BIM) are exported to PHPP via the bim2PH tool. You will also get to know the SketchUP plug-in "designPH", with which buildings can be directly exported to PHPP in 3D modelled, optimised, updated and provided with component properties.

**Thermal Bridges and Passive House Project Planning Package**

Acquire in-depth knowledge on the subject of thermal bridges - indispensable for the energy-efficient planning of complex buildings. You will also learn how to calculate thermal bridges using the free THERM programme. In addition to determining the appropriate boundary conditions for thermal bridge calculations, you will learn how to read and use the results of two-dimensional heat flow calculations. In addition, various examples are used to provide an understanding of the range of typical thermal bridges and how to reduce thermal bridges in typical connection details in a way that is suitable for passive houses.

The PHPP Expert certificate is only awarded after prior certification as a Passive House designer/consultant. Initial practical experience with the PHPP is recommended. A prerequisite for participation in the PHPP Expert examination is also the successful completion of a term paper. This additional exercise and the feedback from the trainers ensure practical learning success. Use the processing time of 3 months to simultaneously enter your own projects into the PHPP and thus anchor what you have learned in your everyday professional life.