

and Exhibition



MOC | Munich 09 - 10 March 2018

Workshops & Excursions 05 – 11 March 2018













#### 09:00 - 09:45am Welcome



**Rudolf Escheu** Ministerial Director, Head of the Renewable Energy Division, Energy efficiency, Bavarian Ministry of Economic Affairs and Media, Energy and Technology



**Stephanie Jacobs** Head of Health and Environment, City of Munich





**Christine Degenhart** President of the Bavarian **Chamber of Architects** 



Michael Kordon 1st Vice President of the Bayarian Chamber of **Construction Engineers** 

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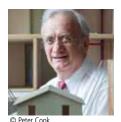
**Dieter Vierlbeck Deputy Managing Director** of the Chamber of Crafts for Munich and Upper Bavaria

#### 09:45 - 10:15am Frank Junker



Chairman of the board, ABG FRANKFURT HOLDING "Over 15 years of economic success with Passive Houses in Frankfurt am Main"

#### 10:15 - 11:00am Wolfgang Feist



Founder of the Passive House Institute and Professor at the University of Innsbruck "Passive House for affordable housing construction"

11:00 - 11:10am

**Awards Ceremony Component Award** "Ventilation solutions for residential buildings"

11:15am - 12:30pm

Guided tours of the exhibition

12:00 - 1:00pm	Lunch break
1:00 - 3:30pm	Sessions 1 - 4
3:30 - 4:00pm	Coffee break
4:00 - 6:30pm	Sessions 5 - 8
6:30pm	End of the event

**Passive House Networking Party** 7.30 pm in the exhibition hall

### PROGRAMME FRIDAY | 9 MARCH 2018

Session 1: Passive House in Bayaria, Hall 2 (Level 0)

Sess	sion 1. Passive nouse in Bavaria, nail 2 (Level 0)
1:00 pm	Karin Reich
	Passive House buildings in the Bavarian State Administration
1:25 pm	Josef Hochhuber
	The Bavarian 10,000-houses-programme — promoting efficient and system-relevant buildings
1:50 pm	G. Vallentin, R. Vallentin
	Passive House development in Munich and Bavaria
2:15 pm	Alexander Kirschbaum
	Monitoring and operational optimisation of a new Passive House school building
2:40 pm	F. Lang, J. Klaffke
	The sustainable city of the future
3:05 pm	Franz Freundorfer
	Passive House through cooperation in regional networks – it's worth it!

#### **AFTERNOON**

1:00 pm	Stas Zakrzewski
	The importance of embodied energy in today's Passive House projects: A New York case study
1:25 pm	A. Arifuzzaman, D. Byrne
	750 bed student residence with high occupancy load, is the cost of Passive House worth it?
1:50 pm	Brandon Nicholson
	Passive House proof in Pittsburgh: profit + Paris progress
2:15 pm	M. Studer, L. Picciano
	New market rate projects for the fast growing region of Vancouver
2:40 pm	P: McMath, Northern most certified PH in North America — A learning demonstration project   P: Wall/Wimmers, A comparative LCA of the wood innovation research lab: an industrial PH for cold climates   P: Fahssi, Calgary, carbon, and components: opportunities for PH in "C-Town"   P: Moorhead, Buck Moorhead Architect: designing PH on the sly
3:05 pm	P: Paulsen, Clearing the air: Is flow rate a sufficient measure of kitchen range hood efficacy?   P: Zouari, Feasibility assessment of PH in the far Canadian North   P: Peel, Primary Energy considerations in a large mixed-use student dorm   P: Romano, HANAC Corona: a case study of PH in multifamily affordable housing
Session 4.	Politics Networks and Trainings Room C 112 (Level 1)

1:00 pm	Dietmar Siegele
1.00 ріп	Simulation study on the use of enthalpy transducers in cold climates
1:25 pm	Jörg Wollnow
	Hygrothermal safety reserves thanks to hygrobrid technology for old and new buildings
1:50 pm	Solitair Kluth
	Fiberglass composite as an innovative building material in the building envelope
2:15 pm	Rainer Pfluger
	Replicable cost-effective solutions for Passive House multi-storey apartment buildings, Campagne-Areal Innsbruck
2:40 pm	Martin Sambale
	Avoiding mistakes through the certification of Passive House buildings
3:05 pm	Michael Stegemann
	Thermal optimisation of anchoring elements, here: masonry bracket P: Materne, Market overview battery storage – capabilities and distinctive features   P: Schuller, Eco-efficiency analysis of heating and storage systems for households

1:00 pm	Shane Colclough
	The Passive House Standard — a key enabler
1:25 pm	Birgit Knoch
	Luxembourg — not just banks
1:50 pm	Maarja Meitern
	How is energy efficiency connected to value in European markets?
2:15 pm	Dieter Herz
	Implementing and securing Passive House requirements in public construction
2:40 nm	Nick Grant
2:40 pm	
	Passivhaus for the many not the few
3:05 pm	P: Jedliczka "Educate yourself and influence others through what you are" Wilhelm von Humboldt   P: Feirer, PH is child's play – knowledge transfer for the builders of tomorrow   P: Tzanev, The building knowled hubs: successfully running PH trainings in Southeastern Europe   P: McKenzie, Without a certificate, it is just a passive house. Or is it?   P: Reichmann, "Walking Forest": PH with integrated artwork

#### P: Short presentation (Poster)

### PROGRAMME FRIDAY | 9 MARCH 2018

Session 5: Cost-effectiveness / Economics in residential buildings, Hall 2 (Level 0)

4:00 pm	Mario Bodem
	Cost reduction through the Passive House Standard – further optimisation approaches
4:25 pm	Gerrit Horn
	True component costs
4:50 pm	Engelbert Spiß
5:15 pm	Showcase project: The first five-Euro Passive House Standard residential building in Tyrol Britta Stein
	Reducing utility costs in social housing
5:40 pm	Andreas Nordhoff
	Economic supply of Passive House with heat pump
6:05 pm	P: Noy, Growing up in a PH – Ten years of experience and its influence on a young adult   P: Costa, Integral planning enables the interdisciplinary optimisation of a youth recreational center   P: Geyer, PH – preferably simple!   P: Gstrein, Flat rate model – PH new-build with electric heating and PV system   P: v. Thermann, PH of GWG Munich – Humannweg 1– Harthof

#### Session 6: Retrofit projects, Room K 1 (Level 0)

4:00 pm	Helmut Schöberl
	Eberlgasse Passive House retrofit in inhabited state
4:25 pm	Friedrich-Günther Rentzsch
	City of Lübbenau / Spreewald: Integration nursery —
	Wichtel – in Lubbenau / Spreewald
4:50 pm	Clemens Le Levé
	Ecological retrofit — with a new façade system
	3 ,
5:15 pm	Jürgen Schnieders
	Why older buildings are not heated as much as
	thought — an attempt to explain
5:40 pm	R. Iannetti, B. Kaufmann
	Reconciling efficiency-cost-effectiveness —
	PH Standard — affordable apartments in Italy
6:05 pm	Admir Music
	Air distribution in housing — development of the façade

#### AFTERNOON

Session 7: Hot Climates and Summer Comfort, Room D 111 (Level 1)

4:00 pm	Amarante Barambio Buisan
	Premium, ecological and autarc. A house in Mallorca
4:25 pm	Francesco Nesi
	A systematic LCC analysis for the Mediterranean: the emblematic case of Italy
4:50 pm	Stefan Pallantzas
	Can a single minisplit heat and cool a 100m <sup>2</sup> Passive House?
5:15 pm	P: Oliveira, Innovative sustainable construction: Energy independent CLT PH for South Europe   P: Dobrevski, How to get cost-effective summer comfort   P: Gavião, PH in Brazil: different solutions for different climatic conditions   P: Stathopoulou, Single family PH PLUS in Attica, Greece
5:40 pm	P: Russo, Cost-effective MEP solutions for a multifamily building in Mediterranean climate   P: Abercromby, Construction & evaluation of a complex PH in the warm climate of Western Australia   P: Pagliano, Monitoring results of a zero energy PH with renewables in a Mediterranean climate   P: Clarke, Boundary conditions for robust summer comfort predictions in PHPP
6:05 pm	P: Treberspurg, Summer comfort in PH residential buildings through component-activated reinforced concrete ceilings   P: Arda, A modular approach to building purpose-oriented self-sufficient structures

#### Session 8: Methods and Tools, Room C 112 (Level 1)

Ses	sion 8: Methods and Tools, Room C 112 (Level 1)
4:00 pm	P. Cuesta, J. Calvo
	Passive House users and BIM. How to make the most of revit models on PHPP certifications
4:25 pm	Tim Martel
	Time Saving Tools for PHPP: Window Tool and Lifetime costing with co-benefits
4:50 pm	Michael Crilly
	Convergence and interoperability of BIM with passive design principles
5:15 pm	Bart Cremers
	Effects of condensation in exchangers of ventilation units — analysis of field studies
5:40 pm	Krisjanis Kalnciems
	The Passive House Standard as the backbone for successful PPP infrastructure projects
6:05 pm	P: Hall, PVopti — Hourly-based design tool for determining personal consumption   P: Kampouropoulos, A novel methodology for the optimization of the retrofitting actions during building   P: Ottinger, Heat losses through internal waste and rainwater pipes — Monitoring & Modelling

8:30pm Plenary



Janna Schönfeld
EASME —
European Commission
Energy efficiency in buildings:
state-of-play on EU-level



Frank Heidrich
Federal Ministry of Economics
and Energy



**Burkhard Schulze Darup** Architect "Passive House quo vadis?"



Elrond Burrell
VIA architecture,
Passivhaus in Plain English
& More, and Passive House
Institute New Zealand
"Love Passive House"

10:30am - 1:00pm Sessions 9 - 12 1:00pm - 2:15pm Lunch break 2:15pm - 4:45pm Sessions 13 - 15 4:45pm - 5:15pm Coffee break

### 5:15pm Panel discussion (in German):

"Passive House – it's worth it! How to effectively implement high energy efficiency at the regional level"

5:15pm Participants of the panel discussion



Josef Hochhuber Bavarian Ministry of Economic Affairs and Media, Energy and Technology



Wolfgang Feist University of Innsbruck and Passive House Institute



**Simone Kreutzer** IG Passivhus Sverige



Micheel Wassouf Energiehaus Edificios Pasivos



Franz Freundorfer Passivhauskreis Rosenheim-Traunstein

### Session 9: Cost-effective non-residential projects in operation,

PROGRAMME SATURDAY | 10 MARCH 2018

Hall 2 (Lev	/el 0)
10:30 am	L. Lepp, M. Reich
	MPREIS Passive House Supermarkets: An economic success story
10:55 am	A. Robrecht, J. Kuckelkorn
10.55 am	Monitoring and operational optimisation of the
	Energy Plus School Schmuttertal-Gymnasium Diedorf
11:20 am	Søren Peper
	Monitoring: Passive House police administrative building
11:45 am	Rainer Moll
	Experiences with operational and user behavior in non-residential Passive House buildings
12:10 pm	Olaf Reiter
	Conference Center IHD Dresden — the next generation lecture hall
12:35 pm	Martin Endhardt
	Office building using hybrid construction
	: Supply Concepts and Renewable Energies,
Room K1 (	
10:30 am	· · · · · · · · · · · · · · · · · · ·
	Opportunities for electrically supplied buildings in Germany's sustainable energy transition
10:55 am	Jürgen Schnieders
	Energy balancing at district level
11:20 am	J. Mühlhaus, R. Vallentin
	PER participation model with sustainability
	component
11:45 am	Jessica Grove-Smith
	Active cooling in the context of a renewable energy supply
12:10 pm	R. Vallentin, M. Schröferl
	Energy self-sufficient Passive House building
12:35 pm	Martina Reinwald
	Energy storage and grid regulation for highly efficient

P: Deimel, Plus Energy House Tuttlingerweg: Cooling in summer

#### **MORNING**

Sessio	on 11: Passive House in Asia, Room D 111 (Level 1)	
10:30 am	Ludwig Rongen	
	SAYYAS Passive House Window Factory, Harbin (Northern China)	
10:55 am	Bintao Deng	
	The development and mode exploration of passive ultra-low energy buildings in China	
11:20 am	Mingzhe Lu	
	The modernisation of existing building stock towards the PHI Passive House Standard in China	
11:45 am	Myoungju Lee	
	Applying Passive House Standard techniques to the first zero energy housing complex in Nowon District, Korea	
12:10 pm	Aijuan Zou	
12:35 pm	Passive House HVAC System Design Case Study P: Frey, Economic mechanism strategies for the realisation of innovative construction concepts P: Rongen, Prefabricated Passive House Modular Buildings, Sunite (China) and Ulan Bator (Mongolia)   P: Ring Evaluating energy consumption and comfort in Qingdao Passive House experience center   P: Zhicai Han, The application of graphite polystyrene board in Passive House buildings in China	
Session 12: Projects in Europe, Room C 112 (Level 1)		
10:30 am	Rachel Mitchell	
	Proving Passivhaus: Post occupancy evaluation of certified Passivhaus homes in the UK	
10:55 am	Andy Jarvis	
	Next generation Passivhaus archives radical simplicity	

#### 1

KISS Premium

#### 11:20 am Jesus Menendez

Passive House photo set studio: project and user experiences

#### 11:45 am Bertie Dixon

Efficient heat system design in large Passivhaus multifamily buildings, the UK experience

### 12:10 pm

P: Bradshaw, Moisture, embodied energy & other qualities of natural materials

in Passivhaus buildings | P: Stephens, Designing with the vernacular in relation to planning & PH – An Irish perspective | P: Sutherland, Hampshire PH – Site sensitive design for health, wellbeing and low carbon dwelling | P: Miščević, First eco-sandwich house – Social housing PH aesthetics

#### 12:35 pm

P: Tresidder, PH buildings as renewable-energy buffers in Scotland | P: Dehlin, PH construction in sub-arctic climate | P: Monteyne, Autonomy of a residential PH in Belgium using PV and energy storage | P: Riis Dietz, Solar passive and active cooling in social housing, 3 PH terrace houses in DK.

#### P: Short presentation (Poster)

### PROGRAMME SATURDAY | 10 MARCH 2018

Session 13: Cost-effective ventilation solutions for residential construction, Hall 2 (Level 0)

2:15 pm	Kristin Bräunlich
	Component Award for cost-effective home ventilation
2:40 pm	Norbert Stärz
	Ventilation in housing — centralised, decentralised or somewhere in between?
3:05 pm	Tanja Schulz
	New concepts for controlled ventilation: Component-integrated ventilation in residential construction
3:30 pm	Markus Wirnsberger
	Simple ventilation systems for residential buildings — Investigations in a research apartment
3:55 pm	Oliver Kah
	Summer comfort in residential buildings: additional cooling potential / new evaluation approach
4:20 pm	P: Rojas, Testing recirculating cooker hoods   P: Fuge, Air based heating and comfort, are new system concepts making it possible?   P: Solcher, Natural differential pressure on the building envelope — results of long-term monitoring   P: Feist, System optimisation: From minimal monitoring to precision measurement

#### Session 14: Ecology and Passive House, Room K 1 (Level 0)

2:15 pm	W.Opitsch, G. Vallentin, M. Lemoni
	A perfect combination! Renewable resources and Passive House
2:40 pm	Stephan Leitschuh
	Life cycle analyses for residential buildings of various construction types
3:05 pm	Christoph Sutter
	Life Cycle Assessment with HEROES — simplified data collection, a holistic approach and optimisation
3:30 pm	Simon Speigner
	Hummel barracks, Graz
3:55 pm	Ingo Lütkemeyer
	Stadtwerke Neustadt – A Zero Emission Building completed using sustainable construction
4:20 pm	Gernot Vallentin
	Energy-efficient building in line with room climate aesthetics

#### **AFTERNOON**

Session 15: Retrofits international, Room D 111 (Level 1)

2:15 pm	D.E. Archer, Z. Norwood, I. Theoboldt
	Evaluation of a million programme retrofit to Passive House with BIPV roof and façade
2:40 pm	Michael Ingui
	Game Changing Realities
3:05 pm	Oliver Style
	Step-by-step or one big jump? A multi-storey residential EnerPHit project in Girona, Spain
3:30 pm	J. Steiger, Y. Frank
	A New York high-rise retrofit study
3:55 pm	Esteban Pardo
	Pilot office building from the national government of Spain meets Passive House and BREEAM
4:20 pm	P: Vicente, Running after the PH concept: adaption of a three storey building in operation   P: Rodrigues, Energy retrofit of a historic heritage building in Oporto   P: Petran, Renovation of a 1977 experimental house to the Passive House and national nZEB standards

#### Session 16: Components international, Room C 112 (Level 1)

2:15 pm	Michael Meyer-Olbersleben
	Passive House museum, Passive House model homes and 1 million m² of building land
2:40 pm	Olav Langenkamp
	Open-system façade integrating heating, ventilation and energy production
3:05 pm	Tomas Mikeska
	Testing air-to-air heat pumps under realistic conditions: The influence on its performance
3:30 pm	Enrico Bonilauri
	External vs internal air tightness: understanding risks in climate specific solutions
3:55 pm	P. Ševela, M. Schulze
	Drain Water Heat Recovery — technology principles and planning recommendations
4:20 pm	P: Petran, Life cycle assessment of a small cost-effective PH in Eastern Europe   P: Leigh, Energy Consumption Analysis of Ventilation Cooling Applied in an Office Building in Korea

# Practical tips for the designer's everyday life (in GERMAN only)



# The balancing act between norms and energy efficiency

Friday | Room C 115/116 | 1:00pm-3:30pm

How MUST my ventilation perform – what are the efficiency potentials?

Standard recommendations vs. energy saving window installation

Building envelope: Avoid thermal bridges — optimising potentials

Airtightness: why leaks cost money

Compatibility of efficiency and building culture

Guided tour of the exhibition

#### **Programme tip for the afternoon:**

Session 5: Cost-effectiveness / economics in residential buildings, Hall 2

Session 6: Retrofit projects, Room K1

#### Passive House – it's worth it! Convince your clients!

Saturday | Room C 115/116 | 10:30am-1:00pm

Comfort and health – the arguments for sustainable housing

Cost drivers in the project: how can I get around these? Solutions

The Performance Gap-does it really exist?

Passive House in the funding jungle

Guided tour of the exhibition

#### **Programme tip for the afternoon:**

Session 13: Cost-effective ventilation solutions for residential construction, Hall 2

Session 14: Ecology und Passive House, Room K 1

#### **Excursions in Munich and surroundings**

On Sunday, 11 March 2018, conference participants will have the opportunity to tour Passive House buildings that are either already completed or under construction as well as component manufacturing facilities. All excursions include travel. The tour will be conducted in either English or German with an English translation. A small meal and drink will be provided.

#### **Meeting point:**

MOC | Munich | Lilienthalallee 40 | 80939 Munich

#### Excursion 1 | District living | 09:00am – 4:30pm

Multi-family buildings | Workshops | Local energy supply | Mobility

earlier end possible: 4:00pm Hbf Munich

### Excursion 2 | Munich | 09:00am - 4:30pm

State Parliament Building | School | Multi-storey apartment building

earlier end possible: 4:00pm Hbf Munich

#### Excursion 3 | Munich North | 09:00am - 4:30pm

School | Kindergarten | Office building earlier end possible: 4:15pm Hbf Munich

#### Excursion 4 | Augsburg | 09:00am - 5:00pm

Plus Energy School | PH Prefabricated home manufacturer (wood) | Office building | Multi-family building earlier end possible: 4:15pm Hbf Augsburg

#### Excursion 5 | Allgäu | 09:00am - 5:45pm

Ventilation manufacturer | PH Premium | School with sports hall | Office building (under construction) earlier end possible: 5:30pm Hbf Munich

#### Excursion 6 | Innsbruck | 08:00am - 7:30pm

PH Prefabricated home manufacturer (wood) | Supermarket | Multi-storey apartment building | University retrofit

earlier end possible: 5:30pm Hbf Innsbruck

Please note that this programme is subject to change.

#### **Exhibition**

Passive House components provide maximum comfort with low energy costs in new builds and refurbishments alike. Whether you are looking for insulation materials, windows or ventilation systems with heat recovery — all of the leading manufacturers of Passive House components will be represented at the accompanying trade fair. Here you will find first-class advice, information materials, illustrative models, and experts happy to answer your questions.

Date: Friday and Saturday,

09 and 10 March 2018

Venue: MOC | Munich

80939 Munich | Germany

Times: 09 March 2018, 10:00am - 07:00pm

10 March 2018, 09:00am - 06:30pm

The conference and Passive House exhibition are aimed at: architects, designers, engineers, energy consultants, energy suppliers, tradespeople, scientists and researchers, retailers, manufacturers, local authorities, property developers, students

To order an exhibitor info pack, please contact: Donna Haab | Passive House Institute

Tel.: +49 (0) 6151/826 99 89 E-mail: donna.haab@passiv.de

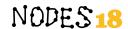
#### **Exhibition area themes**

- Insulation
- Windows and doors
- Ventilation systems with heat recovery, compact heat pump units, air conditioning split units, subsoil heat exchangers, stoves and heating systems, solar collectors
- Measuring devices for airtight construction and ventilation techniques, infrared cameras
- Products for ensuring airtightness
- Prefabricated buildings and building components
- Contracting businesses, trade associations, architectural and engineering firms, energy consultants, quality assurers
- Software, specialist literature, advanced training
- Renewables for Passive House buildings

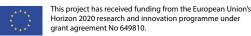


# Training & Networks for 21st century construction (in English)

Passive House-Forum, Friday, 11:15am - 1:15pm Experience exchange for universities, colleges, further-education centres and networks. Dedicated to the teaching and dissemination of energy efficient construction knowledge.







### Component Award for cost-effective home ventilation

In 2018 for the second time running, the Component Award will be awarded for ventilation solutions for residential buildings. The housing sector is once again experiencing steady growth after years of stagnation. The current Component Award will therefore concentrate on cost-effective ventilation solutions for new residential constructions.





### Thursday, March 8, 2018: 9:30am - 4:30pm Dialogue Forum for Municipalities:

Energy-efficient municipal buildings: successful, costeffective implementation from the planning and construction phase to operation. (in German)

This event offers successful and practical examples for the implementation of energy-efficient municipal buildings for representatives from municipalities, cities and rural districts. With concrete tips and instructions for implementation, beginners and experts alike will get an overview of the technical and economic possibilities and developments of energy-efficient construction.

More information: www.lfu.bayern.de/veranstaltungen



### Monday, March 5 & Tuesday, March 6, 2018: PHPP Basics (in German) 9:00am - 5:30pm

This 2-day workshop provides basic knowledge of the Passive House Planning Package (PHPP), the energy balancing and planning tool for efficient buildings and retrofits.

#### Wednesday, March 7, 2018

#### PHPP variant calculation (in English) 9:00am - 5:30pm

Become familiar with the use of the PHPP variant calculation! Allow your client to compare efficiency measures for various standards; check the influence of insulation thickness or other components on the energy demand; and enter retrofit stages to explain efficiency improvement of a building over 20 years.

### designPH – from beginner to advanced user (in English) 9:00am - 5:30pm

We will demonstrate how a building model can easily be set up using the 3D planning tool designPH, to receive preliminary feedback on the energy performance of your sketch designs. Learn how to refine the building energy model to improve the efficiency.

#### Thursday, March 8, 2018: New ventilation concepts (in German) 9:00am - 1:00pm

Become familiar with new controlled ventilation concepts that provide a promising approach towards reduced investment costs: façade-integrated ventilation and decentralized solutions.

### BIM based quality assurance and efficiency design (in English) 9:00am - 1:00pm

Learn how to prepare a BIM-model for IFC-export to then either import it into PHPP or into a Virtual Construction Management Platform for quality assurance of energy efficient projects.

Space is limited, registration obligatory – no fee.





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 637221.

WORKSHOPS WORKSHOPS

#### Thursday, March 8, 2018:

PHeco.

### Economics of energy efficiency (in German) 9:00am - 1:00pm

How do you determine the economics of energy efficiency measures? In this workshop, you will learn how to make reasonable use of project cost data and how to compare options. The influence of funding programmes is also shown. The practical part deals with the input of project variants into the PHPP and the economic analysis with

## Airtightness and moisture control in different climates (in English) 9:00am - 1:00pm

This workshop will focus on the importance of airtight construction and the influences on energy consumption and moisture protection under different climatic conditions. Findings from various studies carried out by PHI on Passive House buildings in different climates will also be summarised.

## Energy efficiency and renewables towards optimal solutions (in German) 9:00am - 1:00pm

The less energy a building requires, the easier it is for this energy to be provided in a sustainable way. We will show you how cost-efficient and simple solutions can be achieved — both in theory and in many built and monitored examples.

Your personal conference preparation: Passive House Basics E-Learning: www.passivhausplaner.eu



#### Thursday, March 8, 2018:

### Energy efficient hot water systems (in English) 2:30 - 6:30pm

The energy demand for the provision of hot water plays a dominant role in the energy balance of residential Passive House buildings. This workshop presents and discusses saving potentials and planning recommendations.

### Commissioning and performance optimisation (in German) 2:30 - 6:30pm

The workshop will focus on quality assurance as well as common MVHR commissioning issues and suggestions on how to tackle them. The most important findings of the 52nd session of the Research group for cost-effective Passive House buildings will be summarised.

### Cooling and dehumidification (in English) 2:30 - 6:30pm

This workshop provides an overview of cooling and dehumidification strategies for Passive House buildings. After initial considerations on the reduction of cooling energy demand, the main focus will be on the energy efficient and cost-effective supply and distribution of cooling in Passive House buildings in warm climates.

## Highly efficient building envelope: Comfortable, practical and economical (in German)

#### 2:30 - 6:30pm

Thermal insulation and airtightness lead to mold, high costs and don't deliver the promised savings? The exact opposite is the case! This workshop will discuss the reasons for this, as well as practical and cost-efficient solutions and how to convince your clients.

## Passive House designer course (in German)

6 - 8 March 2018 in Munich, 14/15 March 2018 in Kempten (Bavaria) www.eza-bildung.de

#### **TERMS AND CONDITIONS**

### **CONFERENCE FEES | FURTHER OFFERS**

£500

#### 1. Registration

Registrations must be either submitted online or by post. Registrations are binding and will be processed in the order in which they are received. The number of participants is limited. After registration, you will receive an invoice. The early booking discount can only be granted if the registration is made before 15 January 2018 and payment is completed by 21 January 2018. Only those who have paid the applicable fees in full will be admitted to the conference. Only cancellations in writing will be accepted. All cancellations received after 20 December 2017 will incur a €70 processing fee while cancellations made as of 20 January 2018 will incur a fee equal to 50% of the total registration fee. The participation fee is to be paid in full in the case of no-show or cancellation on, or after the 10 February 2018. A substitute participant may, however, be nominated.

#### 2. Services

The scope of services includes: the conference proceedings with all written contributions, lunch, coffee breaks and simultaneous translation into English at all German language sessions. The organisers reserve the right to make any necessary changes to the programme.

#### 3. Cancellation, limitation of liability

In the event that the 22nd Passive House Conference or any part of the framework programme must be cancelled, the participants will be notified immediately and any participation fees already paid will be reimbursed. The liability of the organisers is limited to reimbursement of the paid participation fee only.

#### Scientific conference advisory board

Norbert Amman, München (DE) | Robert Bartl, Nürnberg (DE) | Martin Delker, München (DE) | Wolfgang Feist, Innsbruck und Darmstadt (AT, DE) | Franz Freundorfer, Oberaudorf (DE) | Bernhard Funk, München (DE) | Roland Gräbel, München (DE) | Oliver Heiss, München (DE) | Markus Julian Mayer, München (DE) | Josef Hochhuber, München (DE) | Andreas Holm, Gräfelfing (DE) | Björn Kierulf, Senec (SK) | Birgit Knoch, Luxembourg (LUX) | Gerhard Kopeinig, Velden am Wörthersee (AT) | Helmut Krapmeier, Wolfurt (AT) | Jens Kuckelkorn, Garching (DE) | Laszlo Lepp, Innsbruck (AT) | Dirk Mobers, Wuppertal (DE) | Francesco Nesi, Pergine Valsugana (IT) | Oliver Ottinger, Darmstadt (DE) | Rainer Pfluger, Innsbruck (AT) | Martin Sambale, Kempten (DE) | Andreas Schablitzki, Frankfurt am Main (DE) | Burkhard Schulze Darup, Nürnberg (DE) | Jan Steiger, Darmstadt (DE) | Rolf-Peter Strauß, Bremen (DE) | Anke Unverzagt, Hannover (DE) | Rainer Valentin, München (DE) | Gernot Valentin, München (DE) | Micheel Wassouf, Barcelona (ES) | Matthias Wohlfahrt, Hannover (DE) | Mark Zimmermann, Dübendorf (CH)

#### Conference 9 and 10 March 2018

Early booking rate

Early booking rate (registration by 15 January 2018, payment by 21 January 2018 Regular rate Speaker rate   Poster presenter rate (Only one speaker/poster presenter discount will be granted	€590 8) €749 €210   €380			
for each accepted oral and/or poster contribution) Student discount (Full-time students only; copy of valid student ID must be enclosed with registration)	50%			
One-day conference participation Early booking rate	€430			
(registration by 15 January 2018, payment by 21 January 2018 Regular rate (Please note that no speaker/poster presenter disc is available for one-day conference participation)				
Cultural Excursion Munich, Saturday, 10 March, 8:00 pm Service charge: Only open to conference participants, registration req				
Passive House Networking Party, Friday, 9 March €39 (For conference participants only; limited spaces available)				
Passive House excursions: Sunday, 11 March Guided tour (For conference participants only; limited spaces available)  €99				
iPHA member discount on prices listed above	10%			
Workshops (5 - 8 March 2018): Conference participant   Standard price				
PHPP basics (in German)	€450   €540			
PHPP variant calculation (in English)	€290   €350			
designPH from beginner to advanced user (in English)	€290   €350			
New ventilation concepts (in German)	€290   €350			
Airtightness and moisture control in different climates				
(in English)	€290   €350			
Economics of energy efficiency (in German)	€290   €350			
Energy efficiency and renewables towards optimal solutions	C200   C250			
(in German)	€290   €350			
Energy efficient hot water systems (in English)	€290   €350			
Commissioning and performance optimisation (in German)	€290   €350			
Cooling and dehumidification (in English)	€290   €350			
Highly efficient building envelope: comfortable, practical and economical (in German)	€290   €350			
iPHA member discount for above workshops	€30			

#### Organisers of the 22nd International Passive House Conference:



Passive House Institute
Rheinstraße 44/46 | 64283 Darmstadt | Germany

#### Under the patronage of:

Ilse Aigner, Bavarian State Minister for Economic Affairs and Media, Energy and Technology



Bayerisches Staatsministerium für Wirtschaft und Medien, Energie und Technologie





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#### **Detailed information and online registration:**

www.passivehouseconference.org

#### 2018 Conference schedule

05 - 08/3/2018 Workshops

09 - 10/3/2018 22nd International Passive House Conference

and Passive House Exhibition

09/03/2018 Passive House Networking Party

11/03/2018 Passive House Excursions

#### Conference languages: German and English

Simultaneous translation into English will be provided at all German language sessions. For other languages please contact us.





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