

KEYNOTE PAPER

NZAAR-KN-17-44 PLENARY SESSION

Red-Yellow-Green-Greenest Building-The Tropical Adaptation of the Passive House Approach in the Light of Green Certification

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OPENING OF THE EXTENDED ABSTRACT

Over the past decade, a high-tech developing country like Malaysia has become sensitive and proactive towards green solutions for the built environment which is responsible for slightly more than 1/3 of the country's greenhouse emissions. Based on the Paris Agreement, 2016 Malaysia has pledged to a 45% reduction in its greenhouse emissions by 2030, and cut 32 million tonnes of carbon emissions by 2020. Malaysia, on the spearhead of the development in the region, can embark on viable environmental survival strategies to turn green ideas into practice. The so-called developed countries in the north, most of them with their energy potential being far more restricted, have already devised a wide variety of energy regulations and according renewable technologies that might be adaptable to green & energy efficient buildings. This contribution focuses on the adaptation of the Energy Performance Certificate (EPC) deriving from the European Union and the implications for a tropical country. Derived from the Passive House design at its extreme green end, it comes up with a simple scientific colorful rainbow tool kit not only to measure the CO₂-emission. The speech sketches a case-study related staggered procedure how to save CO₂ according to the thermal comfort needs and affordability of its inhabitants.

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NZAAR-KN-17-44

RED-YELLOW-GREEN-GREENEST BUILDING-THE TROPICAL ADAPTATION OF THE PASSIVE HOUSE APPROACH IN THE LIGHT OF GREEN CERTIFICATION

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technologies that might be adaptable to green & energy efficient buildings. This contribution focuses on the adaptation of the Energy Performance Certificate (EPC) deriving from the European Union and the implications for a tropical country. Derived from the Passive House design at its extreme green end, it comes up with a simple scientific colorful rainbow tool kit not only to measure the CO₂-emission. The speech sketches a case-study related staggered procedure how to save CO₂ according to the thermal comfort needs and affordability of its inhabitants. In its specifications, its distinctive elements and benefits compared to common certification tools will become visible, as the Tropical) EPC can go into a business model increasing the market value of real estates.