Birth

1980, Chiba, Japan

Title

Sustainable building engineer
Forbes Japan Officeial Columnist

Education

Msc Architectural engineering
Energy and indoor comfort
Technical Unversity of Denmark
2016

Msc Building Rehabilitation
Greenwich University
2008

Bsc Civil engineering
Nihon University
2003

Membership

IDA
Engineering association in Denmark

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Tomonori Makita

Curriculum vitae

Summary

Tomonori Makita is a sustainable building engineer with strong focus on the computational environmental simulation, has two master degrees from Technical University of Denmark (DTU) as Msc Architectural engineering and the Greenwich University as Msc Building rehabilitation.
Tomonori is a very creative and out of box mind-set person, who is involved many building competitions and product development.

Competence

- Energy performance calculation and simulations toward carbon neutral – Rhino + Grasshopper, LadybugTool, Energy plus, Open studio, IES-VE, IDA-Ice, ESP-r, Be18, LCA Byg.
- Creative writing skill – I am Forbes japan official columnist. Writing about sustainability, SDGs, Lifestyle etc.
- Great net-work and social personality- Extended network between Denmark and Japan.

Language

Japanese -Native
English - Fluent
Danish - Upper intermediate

Work experience

2023- Present	**Senior Energy and sustainability engineer** **henrik-innovation, Copenhagen** Computational energy simulation lead. The engineering design carried out toward sustainability and carbon neutral to the buildings. Creating engineering concept to the early s tage of project and product including LCA. Recently product development includes bio-based material. Business development particular focus on the Japanese market. PR and Communication, including homepage.
2017-2023	**Energy and sustainability engineer** **henrik-innovation, Copenhagen**
2018 - 2021	**Sustainable building engineer** **Structured environment, Copenhagen** Structured environment opened Copenhagen office in 2017 at BLOXHUB. I was the first employee in the branch and supporting establishment of Copenhagen office. My challenge is to open new business as engineering. Copenhagen office has strong focus on innovation. I collaborated together with several Danish companies.
2016	**Internship** **Steensen Varming, Copenhagen**
2015	**Student assistant** **BuroHappold engineering, Copenhagen**
2014	**Internship** **Gottlieb Paludan Architects, Copenhagen**
2010	**Construction architect** **Key operations, Tokyo**
2007-2009	**Construction architect** **Grove and company, London**
2003-2006	**Sales engineer, Nohara. Co,Ltd** Promoting German Window into Japanese market

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PROJECT REFERENCE

2022

Kitoki
KitoKi meaning "Wood and Wood" is a 10-story steel-framed reinforced concrete structure office building. However, the special part of this building is that it is a wooden hybrid structure wherein two of every three stories are made of wood. As a result, the weight of the entire building can be reduced significantly and at the same time it can be easily adaptable for future renovations.
henrik–innovation carried out the Life Cycle Assessment (LCA) for the construction. This assessment revealed that the use of domestic timber for the building material contributed to an approx. 25% reduction of carbon dioxide emissions compared to traditional steel-framed reinforced concrete structure. The major reduction in the building's carbon footprint is an important element to show the new possibilities of timber utilization in the building industry in Tokyo.

2022

SANU
SANU 2nd Home is a subscription service to a series of cabins located amidst nature creating a new lifestyle offered to guests wishing to escape the city. SANU intents to build up to 50 cabins in seven sites by the summer of 2022. All projects are conveniently located just outside the big city of Tokyo and meant for users to recharge in the stillness of nature, be it by the ocean, the mountains or lakes bordering right up to national park lands.
Consisting of domestically produced timber and recycled concrete, the design is environmentally friendly and can easily be dismantled and reused elsewhere. SANU 2nd Home cabins make for the perfect home-away-from-home for people who aspire to bring nature into their everyday lives, with a peaceful space to focus on their work, and the perfect home base for their outdoor activities.
The cabins are designed with own bathroom along with a living room, bedroom, kitchen and workspace in one open room with large windows in one façade overlooking the balcony and the scenery right outside.
henrik-innovation has helped with the LCA analysis determining the reduced size of the carbon footprint and moreover how many trees needs to be planted for the project to be carbon neutral. As a result, we plant more than 7,500 trees which is equivalent to the amount of the timbers for 50 cabins. This also means that these planted trees will catch 4,600 tons of carbon dioxide within the 50 years from planted to harvest and thereby accumulate more carbon than being emitted during project production! This project indicated one of the ways to build sustainable buildings in the future .

2021

Ugakei hygge camping site

As cities were in lock-down a mixed Danish and Japanese design team worked intensely on a sustainable tourism project located on the fringe on one of Japans most populated areas. The project marks a new shift towards low impact regenerative tourism, that focus on developing regions sustainability.
Co-Designed by Danish architects Third Nature, Japanese engineers Structured Environment and sustainability experts Henrik Innovation, the project is set to open in spring 2021. The client, Danish outdoor brand Nordisk in close collaboration with Inabe City looks forward to the opening. Our task is to create sustainable concept for the master plan and also energy and daylight calculation and simulations.

2017 -

Tunnel fabrikken
Tunnelfabrikken was originally build as a temporary factory casting the concrete elements used for the tunnel connecting Sweden and Denmark.
Tunnelfabrikken is 261 meters long and 125 meters wide. The plan is to renovate the building to a become a multifunctional building in Nordhavn with more than 18,000 m² floor area for workshops, offices, meeting rooms, student housing and a large venue hall. Henrik•innovation is a part of the project team and contribute to ensure good indoor climate including good air quality, comfortable temperature and proper daylight conditions along with sustainanable use of materials and use of renewable energy.

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2017 **Paper Island Water culture house**

We worked as a part of competition team with Japanese architecture office Kengo Kuma & Associates for the Paper island Water culture house in Copenhagen. henrik-innovation contributed to the development of the energy- and indoor climate strategy for the new Water Cultural House for the winning proposal by Kengo Kuma & Associates, Cornelius + Vöge, Søren Jensen Consulting Engineers, Riis Acoustics and Rambøll.

2017 **Growing Wood Power**

I organised an workshop together with Royal Danish Academy.
Growing WOOD power brings together a wide variety of speakers covering both research and practice. Each speaker talked about a recent timber project addressing opportunities and challenges relating to wood. This is followed by a roundtable between contributors, the aim being to discuss how we can build more with wood.
Olga Larsen (KADK) Alan Burden (Structured Environment) Ulrich Pohl (COBE) Kristoffer Negendahl (DTU & BIG) Per Thomas Dahl (KLH) Søren Nielsen (Vandkunsten)

2018 - **Forbes Japan**

I started to write about the Danish point of views toward current sustainable and environmental issues. SDGs, eco village, work-life balance, smart city and architecture are my subjects.