

MEINHARDT IN FOCUS

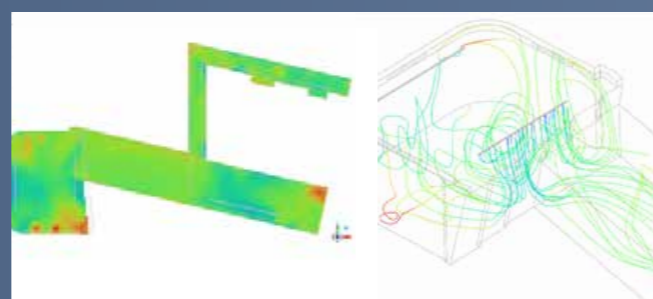
This month we are focusing on **Meinhardt's latest specialist capability – Computational Fluid Dynamics (CFD) Analysis**. CFD is a powerful tool in building optimization. Early adoption at master planning stage can optimize building massing, eliminating dead spots, and avoiding uncomfortable drafts; while advanced analysis at detailed design stage can demonstrate air flow containment for advanced manufacturing or medical applications, or improving thermal comfort in commercial spaces like auditoriums and lobbies. The addition of CFD reaffirms our commitment to innovation and engineering excellence.



Matthew Silvester
Director - Meinhardt Thailand

PROJECT IN FOCUS

On 11th May 2022 a ceremony was held at **the new UOB Thailand Head Office** on Sukhumvit Road to settle the Brahma Shrine thus marking another major construction milestone. This Grade A office stands 144m tall, with 30 floors and 6 basement levels. The building will be certified to Greenmark Platinum and includes state-of-the-art features such as a smart-building GPON ICT backbone system for integrated building controls and an onsite data center.



Meinhardt provided MEP engineering design for the base building and full fit-out of all floors (incl. BIM), as well as **Specialist Lighting design** services, GPON system design and consultancy services, on site Data Centre design and CFD analysis studies for thermal optimization.

The building is scheduled for completion in 2022:Q4.

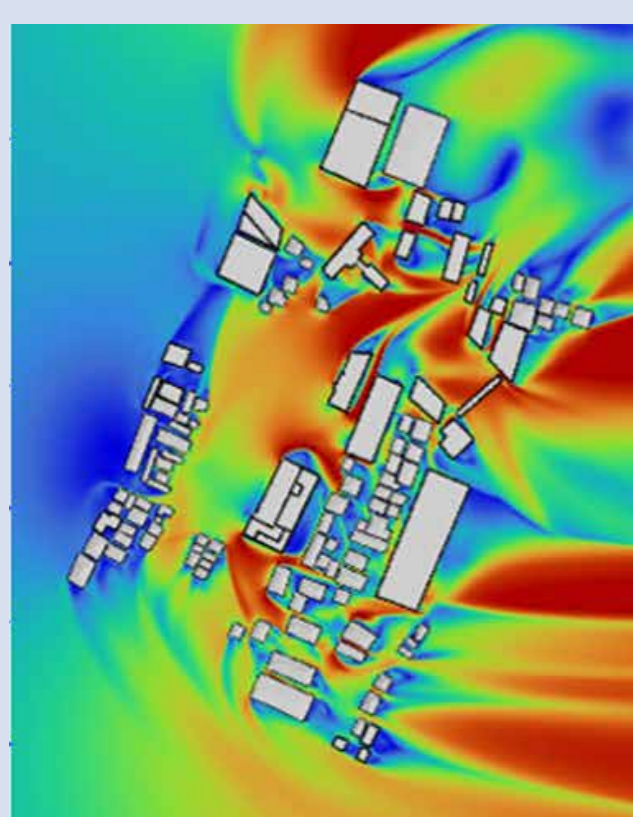
STAFF IN FOCUS

Khun Walaikorn Wongpramot, CFD Modeler, graduated with a master's degree of Mechanical Engineering (Fluid Dynamics Lab) from Kyushu Institute of Technology, Japan and has 6 years' experience. She joined Meinhardt (Thailand) in 2021, and has worked on several of the firm's key projects, including this month's project in focus.

"The use of CFD in engineering design results in optimized ventilation and heat dissipation outcomes. Every project is unique. In a design process, CFD is a cost-saving alternative to trial and error practices and allows designers to explore "what if" scenarios. I feel very proud to follow my passion in the field of CFD at Meinhardt, collaborating alongside some of the best engineers in Thailand".



Walaikorn Wongpramot
CFD Modeler



FACT IN FOCUS

Computational fluid dynamics (CFD) is a branch of fluid mechanics used to analyze and solve problems that involve the flow of fluids (typically smoke or air). Sophisticated software is used to model the interaction of the fluid with surfaces defined by boundary conditions. CFD can be applied to many fields of study, such as aerospace, meteorology, bio-engineering; and, in the case of the construction industry, the study of heat transfer and air flow patterns. Meinhardt's team uses CFD to model outdoor natural ventilation, indoor mechanical ventilation, and specialist cooling applications for mission critical facilities such as data centers.

Source: 'Computational fluid dynamics' (2022) Wikipedia. Available at: https://en.wikipedia.org/wiki/Computational_fluid_dynamics (Accessed: 15 May 2022).