

### Associate Professor Chalermwat Tantasavasdi

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## Professional Experience

- Faculty of Architecture and Planning, Thammasat University, Thailand (2000 Present)
- Architect, Hewitt Architects, Seattle, USA (1999 2000)
- Architect, Terra Co. Ltd., Bangkok, Thailand (1993 1995)

# Specializations

- Energy-efficient and environmentally friendly design
- Passive cooling and natural ventilation
- Adaptive and flexible generic building design
- Sustainable development and design for climate change

# Educations

- Master of Science in Architecture Studies (SMArchS), Massachusetts institute of Technology, USA, 1998
- Bachelor of Architecture (B. Arch),
   Chulalongkorn University, Thailand, 1993

#### **Publications**

- In Refereed Journal
- Wankanapon, P., Chindapol, S., & Tantasavasdi, C. (2013). Environmental impact assessment for typical and innovative housing construction materials in Thailand. BUILT, 2, 43-53.
- Tantasavasdi, C., Chenvidyakarn, T., & Pichaisak, M. (2011). Integrative passive design for climate change: A new approach for tropical house design in the 21st century. BUILT, 1, 5-12.
- Tantasavasdi, C., Sreshthaputra, A., Suwanchaiskul, A., & Pichaisak, M. (2009).
   Predicting airflow in naturally-ventilated generic houses. *Journal of Architectural/Planning Research and Studies*, 6(1), 33-46.
- Tantasavasdi, C., Jareemit, D., Suwanchaiskul, A., & Naklada, T. (2008).
   Evaluation and design of natural ventilation for houses in Thailand. *Journal of Architectural/Planning Research and Studies*, 5(1), 85-98.
- Wanabongse, P., Srisuwan, T., Tantasavasdi, C., Boonyakiat, J., 6 Bavornkitti,
   S. (2007). การปล่อยแก๊สเรดอนจากวัสดุก่อสร้าง [Emission of radon gas from building materials]. Thammasat Medical Journal, 7(1), 19-22.
- Jareemit, D., Sreshthaputra, A., Yimprayoon, C., 6 Tantasavasdi, C. (2006).
   โรคระบบทางเดินหายใจ: ความเสี่ยงร้ายแรงจากการออกแบบและจัดการอาคาร สำนักงานที่ไม่เหมาะสม (Respiratory disease: The fatal risk caused by inappropriate design 6 operation of office buildings). Journal of Architectural/Planning Research and Studies, 4(2), 3-19.

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#### **Publications**

#### In Refereed Journal

- Tantasavasdi, C., 6 Jareemit, D. (2005). การระบายอากาศโดยวิธีธรรมชาติ: แนว ทางการออกแบบผังอาคารชุดพักอาศัยประเภทอาคารสูง [Natural ventilation: Planning design guidelines for residential high-rises]. Journal of Architectural/Planning Research and Studies, 3, 23-36.
- Tantasavasdi, C. (2002). การคำนวณพลศาสตร์ของไหลเพื่อการออกแบบการระบาย อากาศโดยวิธีธรรมชาติ: แนวทางสำหรับบ้านในประเทศไทย [CFD approach towards natural ventilation design: Guidelines for houses in Thailand]. Journal of Architectural Research and Studies, 1, 45-63.
- Tantasavasdi, C., Srebric, J., & Chen, Q. (2001). Natural ventilation for suburban houses in Thailand. Energy and Buildings, 33, 815-824.

#### In Refereed Conference Proceedings

- Srisuwan, W, & Tantasavasdi, C. (2018). การออกแบบโรงเรือนเลี้ยงม้าเพื่อความ สบายเชิงอุณหภาพ [Stable design for horse thermal comfort]. BERAC 9: Built Environment Research Associates Conference, (pp. 134-140). Pathumthani, Thailand: Thammasat University.
- Sakchalathorn, J., & Tantasavasdi, C. (2017). การศึกษาเชิงตัวเลขของฝนที่ถูกลมพัด เพื่อออกแบบเปลือกอาคาร [Numerical study of wind-driven rain for façade design]. BERAC 8: Built Environment Researsh Associates Conference, (pp. 101-110). Pathumthani, Thailand: Thammasat University.
- Yoksap, K., 6 Tantasavasdi, C. (2016). การระบายอากาศธรรมชาติในหอผู้ป่วยรวม ของโรงพยาบาล [Natural ventilation in multiple-beds ward of hospital]. BERAC 7: Built Environment Research Associates Conference, (pp. 11-17). Pathumthani, Thailand: Thammasat University.
- Tienchutima, C., Chungloo, S., Tantasavasdi, C., & Srisutapan, A. (2009). A
  design guideline for high-rise condominium with natural ventilation.

  Proceedings of ISACS 2009 Symposium [CD-ROM]. Chiang Mai, Thailand.
- Wongwatcharapaiboon, J., Sreshthaputra, A., Tantasavasdi, C., Jareemit, D., 8 Chungloo, S. (2008). ประสิทธิภาพของปล่องแสงอาทิตย์ [Efficiency of solar chimney]. Proceedings of the 4th Conference on Network of Thailand [CD-ROM]. Nakornpathom, Thailand.
- Tantasavasdi, C., Jareemit, D., Suwanchaiskul, A., & Naklada, T. (2007). Natural ventilation: Evaluation and design of houses in Thailand. *Proceedings of the 3rd Conference on Network of Thailand* [CD-ROM]. Bangkok, Thailand.
- Tantasavasdi, C. (2003). Water: Element for physical and psychological cooling in modern Thai architecture. In R. King, O. Panin, & C. Parin (Eds.), Proceedings of an International Symposium, (pp. 249-255). Bangkok, Thailand: Kasetsart University Press.

### **Publications**

#### In Conference Proceedings

 Tantasavasdi, C., Srebric, J., & Chen, Q. (2001). CFD: A tool for innovative natural ventilation design for houses in Thailand. Proceedings of the Fourth International Symposium on Asia Pacific Architecture. Hawai'i: University of Hawai'i at Manoa, 161-174.

#### Other Publications

 Tantasavasdi, C. (2013). บ้านประหยัดพลังงานแห่งอนาคต: ทบทวนวิถีธรรมชาติจาก อดีต [Future energy-efficient house: Reconsidering passive approach from the past]. Journal of Government Housing Bank, 72, 98-103. Bangkok, Thailand, Government Housing Bank.

[Passive design for climate change: Future energy efficient]. Pathumthani, Thailand: Thammasat University

- Tantasavasdi, C. (2011). นวัตกรรมและผลิตภัณฑ์ที่เป็นมิตรต่อสิ่งแวดล้อม
   [Environmental-friendly innovation and products]. House and City, 12, 33-37.
   Bangkok, Thailand: National Housing Authority.
- Tantasavasdi, C. (2008). การออกแบบโดยวิธีธรรมชาติและแนวความคิดอาคารสีเขียว [Passive design and green building concept]. ASA, 10:51-11:51, 92-99. Bangkok, Thailand: Association of Siamese Architects.
- Tantasavasdi, C., & Arkaraprasertkul, N. (Eds.). (2004). Architectural engineering: Towards practical integration. Bangkok, Thailand: Conform.
- Tantasavasdi, C. (2004). เครื่องช่วย (สลาย) ฝันสถาปนิก: การคำนวณพลศาสตร์ของ
   ไหล [Eliminating architects' (day) dream: Computational fluid dynamic]. Pleasant
   Built. Banakok, Thailand: Association of Siamese Architects, 8-1 8-10.

#### **PROJECTS**

#### Research Projects

- Innovative house for the future. (research fund from Supalai Public Company Limited, Thailand), 2017.
- Relocation of governmental office. (research fund from the Treasury Department, Thailand), 2015.
- Energy efficient and low cost house measurement and solar cell installment.
   (research fund from the National Housing Authority, Thailand), 2013.

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#### Research Projects

- Solar energy as an alternative and renewable energy source for electricity production in the water treatment system of an NHA project. (research fund from the National Housing Authority, Thailand), 2012.
- Environmentally friendly innovation and finished goods applications to support
   NHA's future housing development business model. (research fund from the
   National Housing Authority, Thailand), 2011.
- Energy conservation measures in commercial buildings for climate change.
   (research fund from the Energy Policy and Planning Office, Thailand), 2011.
- The synthesis of knowledge related to the housing design and construction technology for application to NHA's projects. (research fund from the National Housing Authority, Thailand), 2010.
- Low-cost energy-efficient house for living in global warming conditions.
   (research fund from the National Housing Authority, Thailand), 2010.

#### Consultancy Projects

- Guidelines for evaluation and design of natural ventilation for houses.
   (research fund from the Department of Alternative Energy Development and Efficiency, Thailand), 2006.
- Creating design guidelines for safe and healthy buildings in Thailand.
   (research fund from the Commission on Higher Education, Thailand), 2005.

#### Consultancy Projects

- Energy Consultant for CPN CHAPS Outlet Mall Project, Bangkok, Thailand, 2018.
- Passive Design Consultant for Minus-5 Housing Project, Bangkok, Thailand, 2018.
- Energy Consultant for Saladaeng Outdoor Shopping Mall Project, Bangkok,
   Thailand. 2015.
- Energy Consultant for Central Eastville Outdoor Shopping Mall Project,
   Banqkok, Thailand, 2014.
- Head of the consulting team, Energy-efficient and Environmentally Friendly
  Buildings Labeling Project, Department of Alternative Energy Development and
  Efficiency (DEDE), Thailand, 2008-2009.
- Passive Design Consultant for Central Srinakarin Outdoor Shopping Mall Project, Bangkok, Thailand, 2008.