Chinachem Group
Sustainability Conference 2024
Integrating Sustainability Solutions towards a Resilient Future

Professor LAM Khee-poh
Provost's Chair Professor of Architecture and the Built Environment,
National University of Singapore

Summary

"Human-centric Design and Adaptation for a Climate Resilient Built Environment"

- Professor LAM Khee-poh expressed gratitude to Chinachem Group, BEC, and HKGBC for the invitation for joining the conference.
- He introduced the concept of human-centric design in the context of climate resilience, building on discussions from previous speakers.
- Professor LAM clarified that human-centric design is not about individualism but focuses on collective well-being and the needs of all users within the built environment.
- He highlighted the transformative impact of COVID-19 on environmental quality, noting how reduced human activity led to cleaner air and water.
- Professor LAM pointed out the existence of international standards for human-centred design, which focus on user needs, including physiological, psychological, sociological, and economic factors.
- He stressed the importance of an integrated approach involving multidisciplinary professionals to effectively address these needs.
- He shared his experience in promoting collaboration between architects, engineers, and now inviting medical and social professionals into his classes.
- Professor LAM critiqued the current focus on smart technologies, arguing that understanding human behaviour in buildings is often overlooked.
- He emphasised the need for comprehensive measurement and evaluation of occupant experiences to inform better design solutions.
- Using examples from research at Carnegie Mellon University, he illustrated the importance of collecting data on acoustics, lighting, and user behaviour before and after building renovations.
- Professor LAM noted the potential for achieving net positive energy buildings, sharing successes in Singapore and emphasising the importance of continuous monitoring.
- He called for a shift in mindset within the building industry to incorporate occupant needs into design and operational practices.
- Professor LAM concluded by reiterating the need for resilience in building systems and the ongoing commitment to measuring and analysing performance to adapt to changing conditions.

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林棋波教授
新加坡國立大學建築學院院長

重 點

「以人性化設計及調適方案打造氣候韌性建築環境」

- 林棋波教授感謝華懋集團、商界環保協會及香港綠色建築議會邀請他參加論壇。
- 他在氣候韌性的背景下介紹以人為本的設計概念，並建基於前面講者的討論進行延伸。
- 林教授澄清，所謂以人為本的設計並不意味著個人主義，而是重視整體福祉及所有使用者在建築環境中的需求。
- 他強調新冠疫情對環境質量的變革性影響，指出人類活動減少如何導致空氣和水質的改善。
- 林教授指出，目前已存在以人為中心設計的國際標準，這些標準重視使用者需求，包括生理、心理、社會和經濟因素。
- 他強調，採取綜合方法，並涉及不同學科的專業人士，能有效滿足這些需求。
- 他分享了他在促進建築師及工程師之間合作的經驗，現在更邀請醫療和社會專業人士參與其課堂。
- 林教授批評當前對智能科技的過度關注，導致人類在建築中的行為被忽視。
- 他強調需要全面測量和評估建築物使用者的體驗，以提供更佳的設計解決方案。
- 他以卡內基梅隆大學的研究為例，說明在建築翻新之前和之後收集聲學、照明和使用者行為數據的重要性。
- 林教授指出實現淨正能量建築的潛力，並分享新加坡的成功案例，強調持續監測的重要性。
- 他呼籲建築業界轉變思維方式，將建築物使用者的需求納入設計和營運實踐中。
- 林教授最後重申，在建築系統中需要韌性，以及持續承諾測量和分析其表現，以適應不斷變化的環境。

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