



**TNCHE Asia 2024 Conference**  
**" Decarbonization, AI and Digital Transformation**  
**for Sustainability in Process Industries "**  
**Presenter's Biodata & Abstract**



**Full Name** : MAYANK NAUNI  
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**Current Position** : ASEAN INDUSTRIAL SOLUTION ARCHITECTURE LEAD



**Title of Presentation** : Leveraging Generative AI to Drive Innovation and Efficiency in the Chemical Industry

**Presentation Abstract:**

This presentation explores the transformative potential of generative AI in the chemical industry, focusing on its capacity to innovate product development, enhance operational efficiency, and revolutionize market approaches. By integrating generative AI technologies, chemical companies can significantly accelerate R&D processes, from molecule discovery to compound verification and optimization of chemical properties. The session will delve into practical applications including automated synthesis design, predictive maintenance, and dynamic supply chain management, demonstrating how AI-driven models enhance decision-making and productivity. Additionally, the presentation will address the strategic implementation of generative AI, encompassing risk management, technology adaptation, and change management to maximize the technology's value. Join us to discover how generative AI can not only streamline operations but also foster a competitive edge in the evolving landscape of the chemical industry.

**Speaker Profile:**

Mayank Nauni is ASEAN Industrial Solution Architecture Lead with Amazon Web Services, based in Singapore. He has over twenty years of experience in the IT industry primarily around solution architecture with expertise in Cybersecurity. He had previously worked for the flag carrier airline of Singapore as a Senior Principal Technologist, where he led a technical team for designing and delivering their digital transformation initiatives on public clouds and on-premise environment.



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He is currently pursuing his PhD in Cybersecurity and has a Master's Degree in Cybersecurity from Singapore University of Technology and Design (SUTD). He holds 26 active certifications in cybersecurity, virtualization, cloud computing platforms & networking.

