

TNChE Asia 2025 Conference "Accelerating Industrial Decarbonization: Digital-Al and Energy Transformation Presenter's Biodata & Abstract



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photo of Presenter; and Company

Portrait (face)

Logo, if available

Title of Presentation : Systems of systems framework for end-to-end optimization of

petrochemical supply chain

Presentation Abstract: In this presentation, I will explore a recently developed Whole Chain Integration (WCI) framework, jointly created by SCGC and QTFT, aimed at achieving end-to-end optimization of SCGC supply chains, spanning from Olefins to PolyOlefins as a cohesive system of systems. This framework leverages Category Theory, a mathematical discipline that facilitates the standardization of both data structures and business logic. As a result, it enables the establishment of a flexible, organization-wide adaptive supply chain that surpasses the limitations of traditional manual decision-making processes. I will also highlight several use cases and the advantages of implementing the WCI framework.



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