

Universidad de Lima  
Facultad de Ingeniería  
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# **VDC FRAMEWORK PROPOSAL FOR CURTAIN WALL CONSTRUCTION PROCESS OPTIMIZATION**

Tesis para optar el Título Profesional de Ingeniero Civil

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Mayo de 2023

# VDC FRAMEWORK PROPOSAL FOR CURTAIN WALL CONSTRUCTION PROCESS OPTIMIZATION

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**Resumen o Abstract:** A building is made up of structural and non-structural elements. Among these are the curtain wall systems. The curtain walls are glazed elements that can cover the building façade entirely and provide thermal and enclosure properties. Despite its use worldwide, some challenges have been identified in the construction process related to transportation, communication between the stakeholders, and the installation itself. A VDC framework is proposed to overcome these challenges, including an implementation workflow and an interrelationship map between the VDC components. This study specialized on a multiuse 12,000 m<sup>2</sup> building under construction in Lima, Peru, resulting in an optimized proposal for curtain wall construction, compared to the traditional construction flow.

**Palabras Clave o Keywords:** Curtain wall, optimization, VDC, construction process.

ECPPM 2022 - eWork and eBusiness in Architecture, Engineering and Construction 2022. Proceedings of the 14th European Conference on Product and Process Modelling (ECPPM 2022), September 14-16, 2022, Trondheim, Norway.

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DOI: [10.1201/9781003354222-21](https://doi.org/10.1201/9781003354222-21)

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Taehoon Kim, Yong-Woo Kim, Hunhee Cho. "A simulation-based dynamic scheduling model for curtain wall production considering construction planning reliability", Journal of Cleaner Production, 2020

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