## **CO2** Emissions Quantification of the Modular Bridge Superstructure

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**Abstract :** Many industries put emphasis on environmentally-friendliness as environmental problems are on the rise all over the world. Among themselves, the Modular Bridge research is going on. Also performing cross-section optimization and duration reducing, this research aims at developing the modular bridge with Environment-Friendliness and economic feasibility. However, the difficulty lies in verifying environmental effectiveness because there are no field applications of the modular bridge until now. Therefore, this thesis is categorized according to the form of the modular bridge superstructure and assessed  $CO_2$  emission quantification per work types and materials according to each form to verify the environmental effectiveness of the modular bridge.

**Keywords :** modular bridge, CO2 emission, environmentally friendly, quantification, carbon emission factor, LCA (Life Cycle Assessment)

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1