

Structural Engineering Global Interoperability: Knowledge Sharing

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Abstract

Design and engineering work for global projects has increased exponentially in the last two decades and will continue to grow as globalization accelerates. Structural engineers collaborate on projects worldwide to understand and implement local codes and practices, specific environmental hazards, unique construction materials, common building systems and construction sequencing. Efforts also extend to general contracting capabilities including cultural and legal systems' impact on procurement budget and project construction schedule.

This presentation will provide a synopsis and an overview of how engineering organizations can benefit from developing a framework for standard practices and requirements in forms that allow easy adoption with local modifications in any region of the world. A database of global codes and standards is envisioned to assist structural engineers with their practice to take into account resources required, cultural influences, legal system and customs on structural engineering practice. The presentation further explores steps planned by the Global Activity Division of SEI/ASCE to develop a sharing platform for Structural Engineers to access required resources and materials to efficiently execute projects worldwide. A review of recent and ongoing sharing efforts between SEI and other engineering organizations and local jurisdictions in different parts of the world will be provided. It is hoped these efforts continue to bridge the gap in engineering practices, required education, level of experience, and licensure standard towards a globally integrated and interoperable structural engineering profession. Knowledge sharing will serve to assert the value and importance of the structural engineer in global construction projects.