

Loss Prevention 2025 Keynote Lecture

Energy Safety: Ensuring a Safer and Sustainable Future

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As the global energy landscape shifts towards more sustainable solutions, ensuring energy safety is paramount. This lecture focuses on advancing the engineering and technologies associated with low-carbon and no-carbon energy sources. The speaker will present recent research that delves into the safety aspects of oil spills, LNG fires, and CO₂ pipelines. The lecture addresses large-scale field testing, consequence modeling, and the development of machine learning or AI tools for risk mitigation in the production, storage, transportation, and utilization of these energy forms. It will showcase the latest research progress in energy safety from the speaker's research group at Texas A&M University, contributing to a safer and more sustainable energy future.