

## Towards Sustainable Project Management

**Access to new resource related to Sustainability and Project Management added to PMWL**



Resource provided by [Maumita Patwary](#)

12<sup>th</sup> February 2024 – Mumbai, India – Access to a new resource has been added to the PM World Library (PMWL) related to Project Management and Sustainability. The new resource is titled “**Towards Sustainable Project Management: Evaluation of Relationship-Specific Risks and Risk Determinants in Engineering Projects**” by Maria Krechowicz, published in *Energies* in 2021. This study focuses on leveraging machine learning techniques for predicting vibrations caused by horizontal directional drilling (HDD) operations, thereby enhancing risk management and operational efficiency in energy infrastructure projects.

The article explains about the utilization of machine learning techniques to assess and handle the risks involved in drilling (HDD) for energy infrastructure projects. HDD technology enables the installation of pipelines, wires, and other underground services, with minimal surface disruption. However, it is crucial to acknowledge the risks associated with HDD operations, including loss, unstable ground conditions and potential impacts on existing infrastructure.

To evaluate and manage these risks effectively the authors propose employing machine learning algorithms that analyse factors to HDD operations. These factors may include drilling parameters, historical incident reports and geological conditions. By examining this data machine learning models can identify patterns and correlations that influence risk levels. In the process of conducting HDD operations this approach allows engineers and project managers to proactively identify any risks and implement measures.

The effectiveness, precision, and safety of energy infrastructure projects may all be improved by incorporating machine learning into the risk assessment processes for HDD operations. Machine learning models may adapt and improve their prediction powers over time by continuously learning from fresh data and feedback. This allows for better decision-making and resource allocation throughout the project lifecycle.

To access this resource, go to the Applications and Topics section of the library at <https://pmworldlibrary.net/applications-and-topics/>, click on "Sustainability and Project Management" and scroll down to find the resource. Users must be registered and logged in to access. If not registered, please try the 30-Day Free Membership.

*This new resource is made available through the PMWL university research internship program, [to learn more, click here](#)*

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**For PMWL Post:**

Krechowicz, M. (2021). **Towards Sustainable Project Management: Evaluation of Relationship-Specific Risks and Risk Determinants Threatening to Achieve the Intended Benefit of Interorganizational Cooperation in Engineering Projects** ; Global Project Management: Communication, Collaboration and Management Across Borders, Chapter I. Available online at <https://www.mdpi.com/2071-1050/14/5/2961> (Patwary)

Where to post in the library: <https://pmworldlibrary.net/sustainability-and-project-management/>