Application of AI Technologies in Pipeline Health Monitoring and Energy Prediction

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Message from the Guest Editors

Dear Colleagues,

Artificial intelligence (AI) has achieved remarkable success in a wide variety of fields in the last few years. For pipeline health monitoring, AI has been widely employed in the residual life prediction of defected pipes, e.g., dented or corroded pipes. For energy engineering, AI makes it easier to deal with high-dimensional features, complex scenarios, large-scale datasets, etc. With the growing demand for cleaner and renewable energy, we believe that AI techniques will help to provide more reliable support for new energy production, management, and marketing. Above all, investigations on new methods or new applications within these topics will be carried out in Energies.

Keywords

- Artificial neural networks/integrity assessment/structural health inspection or monitoring
- Machine learning/forecast method/renewable energy
- Energy demand and production prediction by AI
- AI support for energy management and policy decision
- Machine learning for energy prediction
- Evolutionary algorithms for energy prediction and optimization
- Nondestructive testing/structural health monitoring.

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Message from the Editor-in-Chief

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