Appendix 1. Methods used in research papers

Research Paper	ML Model(s)									Object	Input Data
	SVM	RF	KNN	CatBoost	XGBoost	ANN	CNN	LSTM	Regression		
Machine learning and soft voting ensemble classification for earthquake induced damage to bridges [1]	+	+	+	+	+	+	-	-	-	Bridges and RCC bridges	Taxonomical Variables (Categorical); stiffness variables; excitation variables.
Machine learning-based collapse prediction for post-earthquake damaged RC columns under subsequent earthquakes [2]	-	+	-	-	-	-	-	-	-	RC columns	Column structural performance factors.
VHXLA: A post-earthquake damage prediction method for high-speed railway track-bridge system using VMD and hybrid neural network [3]	-	-	-	-	-	-	+	+	-	High-speed railway track-bridge systems	Seismic signals, structural parameters.
Seismic damage state predictions of reinforced concrete structures using stacked long short-term memory neural networks [4]	-	-	-	-	-	-	-	+	-	RC frames and bridges	Ground motion records.
Seismic response prediction and fragility assessment of high-speed railway bridges using machine learning technology [5]	+	+	-	-	+	+	-	-	-	High-speed railway continuous (HRC) bridge	Structural parameters, ground motion parameters.
Post-earthquake seismic capacity estimation of reinforced concrete bridge piers using Machine learning techniques [6]	+	+	+	-	-	+	-	-	+	Reinforced concrete bridge piers	Structural and seismic parameters.
Deep autoencoder architecture for bridge damage assessment using responses from several vehicles [7]	-	-	-	-	-	-	+	+	-	Bridges	Vehicle acceleration responses and vehicle speed.
Automated location of steel truss bridge damage using machine learning and raw strain sensor data [8]	-	-	+	-	-	-	+	-	-	Steel truss railway bridges	Strain signals.
Seismic damage identification of high arch dams based on an unsupervised deep learning approach [9]	-	-	+	-	-	-	-	-	-	High arch concrete dams	Acceleration response signals, damage scenarios, multi-frequency sinusoidal waves.
Application of machine learning in seismic fragility assessment of bridges with SMA-restrained rocking columns [10]	-	+	-	-	-	+	-	-	+	reinforced concrete (RC) bridges with shape memory alloy (SMA)-restrained rocking (SRR) columns	Acceleration response signals, damage scenarios, multi-frequency sinusoidal waves.