**Traffic Missing Data Imputation: A Selective Overview of Temporal Theories and Algorithms:**

The researchers conducted a review of traffic temporal data imputation methods for addressing missing traffic data in intelligent transportation systems (ITS). They analyzed research methods, missing patterns, assumptions, imputation styles, application conditions, limitations, and public datasets. Additionally, they tested five representative methods using California performance measurement system (PeMS) data, finding that probabilistic principal component analysis outperformed other methods in most conditions for accurate traffic data imputation.

**Bidirectional spatial–temporal traffic data imputation via graph attention recurrent neural network:**

The researchers addressed the issue of incomplete spatiotemporal traffic data in the context of intelligent transportation systems (ITS). They introduced a graph attention recurrent neural network (GARNN) for traffic data imputation, which considered temporal and spatial aspects. Their method utilized separate LSTMs to handle observations and missing data, incorporated a decay mechanism and graph attention network (GAT) for interdependencies and spatial correlations, and bidirectionally integrated temporal and spatial estimations. Evaluation on two public datasets with various missing scenarios demonstrated the superior effectiveness of the proposed model compared to other baseline methods.