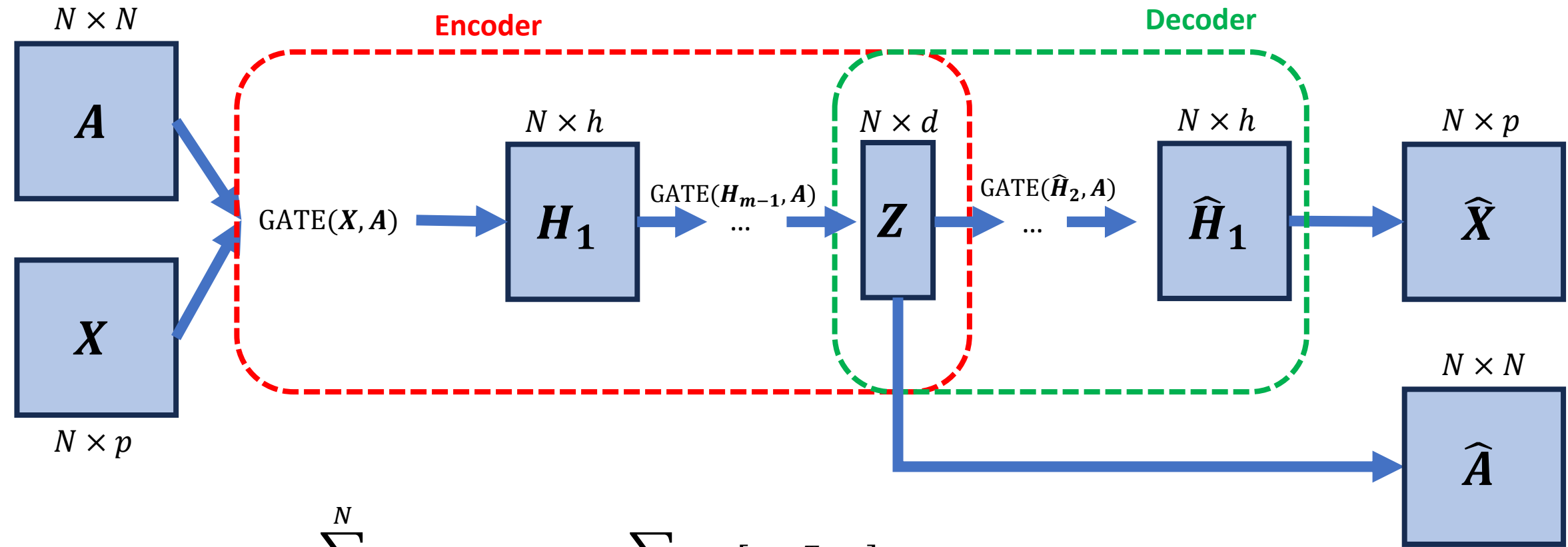**Graph Attention AutoEncoder (GATE) – Salehi and Davulcu, 2019**
Original Task: Node Classification

$$\textbf{Loss} = \sum_{i=1}^{N} ||\mathbf{x}_i - \hat{\mathbf{x}}_i||_2 + \lambda \cdot \sum_{j \in \mathcal{N}_i} \log[\sigma(\mathbf{z}_i^T \mathbf{z}_j)]$$

Salehi, Amin, and Hasan Davulcu. "Graph attention auto-encoders." *arXiv preprint arXiv:1905.10715* (2019).