Introduction

Temporal relationships between different objects or entities in a network can be modeled as topological

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Modeling and adaptation of these dynamic environments require not only the modeling of the entities in

these environments but also the underlying relationships between these entities. Entities in a network

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assessment. However, the availability of limited labeled data is a significant challenge in studying satellite image classification problems. A semi-supervised GNN based method can be well suited to studying this

kind of a problem. Most of the current approaches have applied GNNs to study graph structured temporal data using the snapshot based temporal graph approach that follows the time series format. Real world c e at d can m ured re

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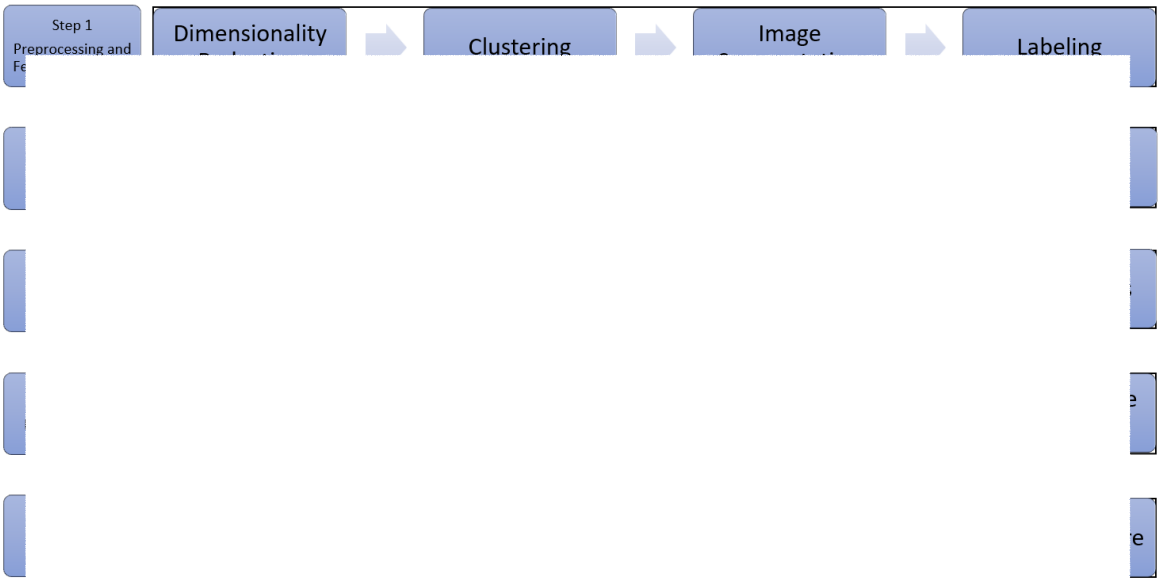
S ased model that can be used for contextual-temporal adaptation called Context-Aware Temporal Graph Network (CATGNN). The proposed model extends the standard Temporal Graph Networks (TGNs) [20] to



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the superpixels in the image $I = \bigcup_{i=1} S_i$. For two given superpixels S_j and S_k, where $S_j, S_k \subset S_i, S_j \cap S_k = \emptyset$, for nonoverlapping pixels $j \neq k$ and $i, j, k = 1,2, \dots, N$.

Several state-of-the-art techniques can be explored for performing segmentation. We intend to use
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vector of GNN message passing for the d-th layer can be represented as shown in Eq (3)

Step 4: Postprocessing

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can capture complex patterns of change that might be difficult to detect using traditional methods.

Time Frame

Table 1: Study Time Frame

S.NO	Research Component	Time Required
1.	Experimental work/Data collection/Modelling and Computer simulations	Six months
2.	Analysis and Model Evaluation	Six months
3.	Thesis writing	Six months