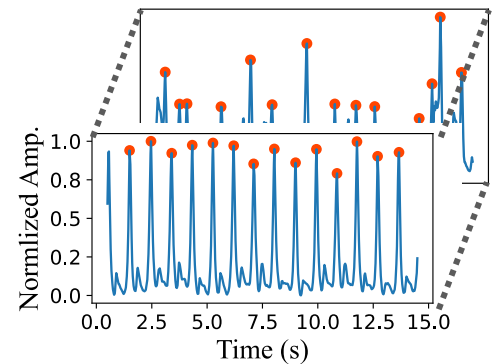
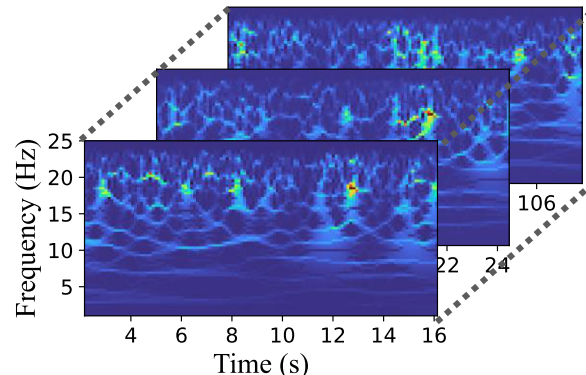


(a) Single Cycle ECG Length Estimation



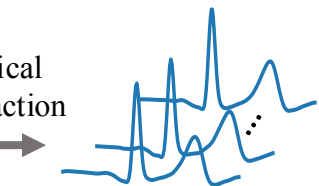
Energy Plot with Detected Peaks $\times 50$

(b) Single Cycle ECG Generator (SCEG)

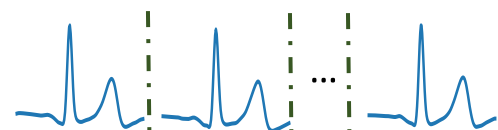


Spectrogram Slices (in time sequence)

Morphological
Feature Extraction

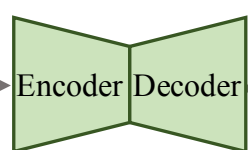


Resample
&
Reshape



Concatenated ECG Pieces
(Morphological Reference)

(c) Long-Term ECG Reconstruction



Temporal
Feature

Feature
Fusion

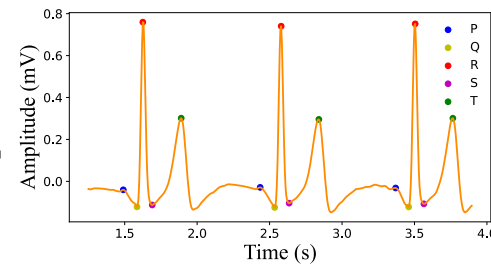
Morphological
Feature



Outputs: Reconstructed ECG

Optimizer

$Loss_{RMSE}$



Ground Truth with
Labeled Peaks

Inputs: Raw Radar Signals $\times 50$