NTNU

Norwegian University of Science and Technology

Omkar Bhoite (Mar.2024 - Mar.2027)

Department of Electronics System - Signal Processing Group

PhD Supervisor’s

Kimmo Kansanen

Image Source: Link

Stefan Werner

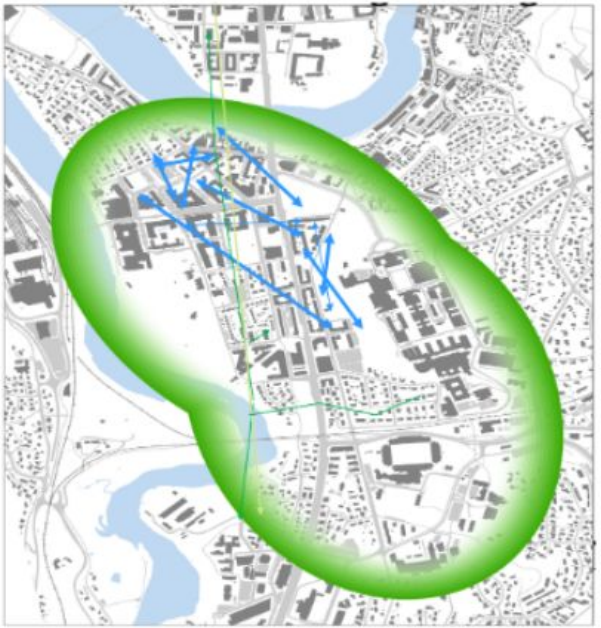
Image Source: Link

PhD Project - Edge Intelligence for Dynamic Digital Twin*

Urban Mobility

Phase-1 Focus: Traffic Flow Prediction based on Road Network Optimization

Where: Elgeseter Street & Locality



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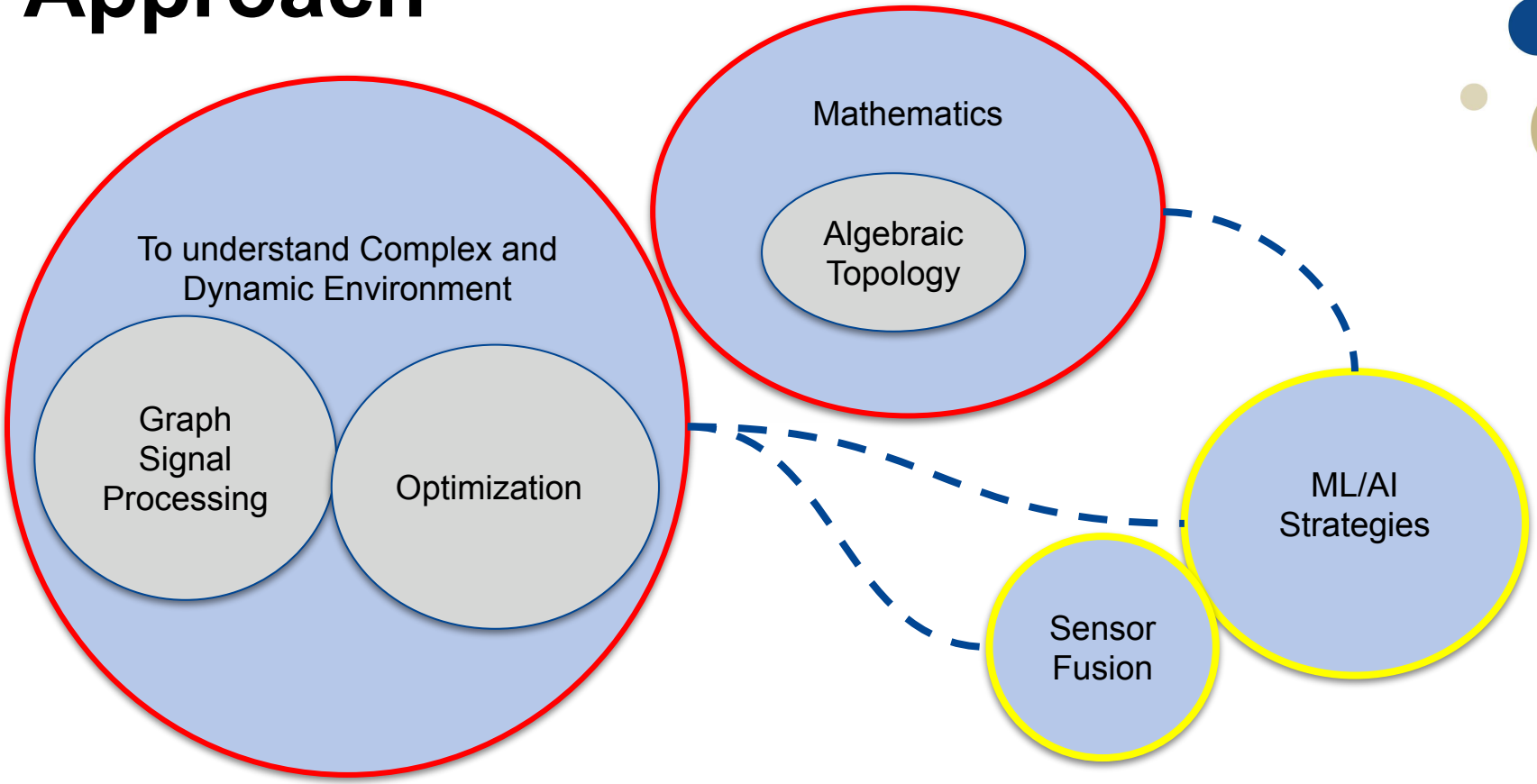
*** Tentative PhD title.**

Approach


To understand Complex and Dynamic Environment
Graph Signal Processing
Optimization
Mathematics
Algebraic Topology
ML/AI Strategies
Sensor Fusion

Plan 2025

- Complete Phase-1 of the work and publish. **(Q1-Q2)**
- Applying the work done on the project data to get some new insights. **(Q2-Q3)**
  - *Project Data: Telia Data (Need Access to AtB Data)*
  - *Purpose - Traffic flow and cost analysis for expansion of network.*
- Further advance work on the networks and optimization with application to road network and data privacy. (Phase-2) **(Q3-Q4)**
  - *Rectify the drawbacks in Phase-1 with new techniques.*
  - *Work on privacy preserving data collection.*
- Explore AI tools **(Q3-Q4)**