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Proposed Study



The proposed area of research for my thesis is infrastructure management. I intend to look at possible methods and constraints of managing infrastructure on a full life cycle costing basis focusing on smaller municipalities particularly cities with populations between 5,000-50,000. I will consider various infrastructure classes including roads, underground utilities, buildings, machinery & equipment and vehicles.

Existing methods of infrastructure management tend to focus on larger networks and systems and focus on the optimization of repair, rehabilitation and replacement. What will make this research unique is the application of Bayesian statistics in the development of a “State of the Infrastructure Plan” using a case study of a smaller municipality. This approach will identify methods to credibly quantify and effectively communicate the ongoing financial needs to maintain the existing infrastructure.