Min-Degree Constrained Minimum Spanning Tree Problem with Fixed Centrals and Terminals: complexity, properties and formulations

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Highlights

- A variant of the Min-Degree Constrained Minimum Spanning Tree Problem is proposed
- Each node is fixed as central (with a minimum degree constraint) or terminal (leaf)
- The feasibility problem is shown to be NP-Complete
- Necessary and sufficient conditions for feasibility are derived
- Several ILP formulations and three Lagrangian heuristics are presented and tested