

Assistant (Student)

Solving the manufacturer assignment problem to maximise availability of a network using linear programming

Availability is the probability that a device performs its required function at a particular instant of time.

In most networks, the components are brought from different manufacturers. They have different availabilities. Network operators prefer having reliable components handling more traffic. This ensures the robustness of the network. So, assigning appropriate manufacturers to the components in the topology guaranteeing

- maximum availability, and
- load balancing on the nodes

is essential.

For a fixed topology and known traffic, how can the components be assigned to manufacturers to maximise availability and balance load on nodes?

Prerequisites

Mandatory:

- Communication Network Reliability course/ Optical Networks course at LKN
- Python

Preferred:

- Knowledge of Linear Programming and/or nonlinear programming

Contact

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Advisors

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