

VOR träge zum Operations Research

Kolloquium des Instituts für Operations Research

- Zeit:* Donnerstag, 15. Juni 2023, 17:30 – 18:30 Uhr
- Ort:* **Raum 4A-09, Gebäude 05.20**
- Es spricht:* Prof. Dr. Tanka Nath Dhamala
Head, Central Department of Mathematics, Tribhuvan University
- Zum Thema:* Overview of the Results on Emergency Planning Strategies

A large number of mathematical models have been developed to address the emerging issues caused by natural as well as human created disasters. The network flows are the central and widely used operational research models in existence. The scope of these efficient solution approaches is not only limited to achieve the optimum solutions of these computationally challenging optimization problems, but also helpful to explore their applicability in practice supporting the SDG goals in the disaster prone countries.

This presentation will be focused on sketching a number of network flow models and their solution strategies with main two objectives - maximization of the flow values within the specific evacuation time and minimization of the time to be required for an evacuation of given amount of flow value. Both single and multi-commodity flow problems will be discussed and various algorithms will be illustrated with case studies and examples. The modifications of flow models with lane reversals strategies and their impact on the evacuation plans will be explored. Keywords: Emergency planning, network optimization, quickest flow, maximum flow, excess flow, abstract flow, multi-commodity flow, flow location.

Die Vorträge zum Operations Research wenden sich an alle Interessierten!

Bei Rückfragen wenden Sie sich bitte an:
Prof. Dr. Stefan Nickel, Institut für Operations Research