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EDITORIAL MESSAGE

This issue of the Yugoslav Journal of Operations Research is dedicated to Variable Neighborhood Search (VNS) and to Professor Nenad Mladenović. VNS, a metaheuristic introduced by Professor Mladenović and Pierre Hansen, provides a flexible framework for developing heuristics to approximately solve combinatorial and continuous optimization problems.

VNS systematically alters neighborhood structures during the search for an optimal (or near-optimal) solution based on the following observations:

- A local optimum relative to one neighborhood structure may not be a local optimum for another structure.
- A global optimum is a local optimum with respect to all neighborhood structures.
- Empirical evidence suggests that, for many problems, all or a large number of local optima are relatively close to each other.

The first observation supports using increasingly complex moves (which define different neighborhood structures) to find local optima across all structures. The second observation suggests using multiple neighborhoods if the local optima found are of poor quality. The third observation indicates that increased search intensity around the current best solution can be beneficial.

Following the introduction of VNS, Professor Mladenović developed several variants, including Reduced Variable Neighborhood Search, Variable Neighborhood Descent, Nested Variable Neighborhood Descent, Skewed Variable Neighborhood Search, and General Variable Neighborhood Search.

VNS has been successfully applied to various combinatorial optimization problems. Methods based on VNS or its variants have demonstrated excellent performance for problems such as the *p*-median problem, *p*-center problem, *p*-next center problem, uncapacitated single allocation *p*-hub median problem, and uncapacitated single allocation *p*-hub center problem, among others.

Professor Mladenović has also played a significant role in promoting VNS. He initiated the EURO Mini Conference (MECXVIII) on VNS held from November 23-25, 2005, in Puerto de la Cruz, Tenerife, Spain. He was also the organizer of the second EURO Mini Conference (MECXXVIII) dedicated to VNS, held from October 4-7, 2012, in Montenegro. Since then, an International Conference on Variable Neighborhood Search has been organized almost every two years.

This issue includes papers describing the implementation of VNS-based methods for various optimization problems. Lubnina and Kochetov successfully applied VNS to the Helicopter Routing Problem in Oil and Gas Offshore. Arousse et al. presented a Skewed General Variable Neighborhood Search for the multi-compartment vehicle routing problem. Curabel et al. introduced a VNS-based approach for the Manhattan Metric

Straddle Carrier Routing Problem with Buffer Areas. Ristić et al. proposed a VNS-based method for the p-next center problem.

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