

# VRP heuristic solvers course : projects

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## Rules

- You can work in groups of maximum 4 people.
- You choose the problem (at most one group per problem)
- You read the associated paper : introduction, problem definition, experimental results (it is not required to study the solution approach)
- You find instances (or generate similar ones)
- You model the problem (or eventually its simplification) both with OR-Tools AND LocalSolver
- You compare experimentally two models on the instances from the paper
- You produce a report (4-5 pages), where you indicate clearly how the work has been divided between the members of the group.
- You present your results on December 8 (20 minutes per group + questions)

## Problems

1. Traveling salesman problem with hotels [Barbosa and Uchoa, 2020]
2. Multi-constraint team orienteering problem with multiple time windows [Souffriau et al., 2013]
3. Workforce scheduling with order-picking assignments [Rijal et al., 2021]
4. Coloured traveling salesman problem [Li et al., 2015]
5. Kidney exchange problem [Pansart et al., 2022]
6. Vehicle routing with roaming delivery locations [Reyes et al., 2017]
7. Multiperiod technician routing and scheduling problem [Zamorano and Stolletz, 2017]
8. Location-routing problem with time windows [Farham et al., 2018]
9. Multiple knapsack problem with setup [Lahyani et al., 2019]
10. Vehicle routing problem with drones [Wang and Sheu, 2019]

## Références

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