

**Registration is now open!** The **12<sup>th</sup> DIMACS Implementation Challenge on Vehicle Routing Problems** welcomes competitors to test their solvers in the following tracks:

1. Capacitated VRP (CVRP)
2. VRP with Time Windows (VRPTW)
3. VRP with Split Deliveries (SDVRP)
4. Inventory Routing Problems (IRP)
5. Electric Vehicle Routing (E-VRP)
6. Capacitated Arc Routing (multiple versions)
7. Dynamic Ride Hailing



A solver may compete in as many tracks as desired, and a team is free to enter multiple solvers.

The over-arching purpose of the Challenge is to assess the current state-of-the-art performance of algorithms for classic VRP variants as well as newer variants inspired by practical considerations. At the same time, the Challenge aims to foster interactions and transfer of ideas among researchers who are working on a common class of problems with common sets of benchmark instances. The competition results will be announced at a concluding workshop held in honor of David S. Johnson, whose vision established the Implementation Challenges. Top competitors will be invited to present at the workshop.

The Challenge website is up and running. *It has everything you need to begin testing immediately.*

**Challenge Website:** <http://dimacs.rutgers.edu/programs/challenge/vrp/>

**A Few Key Dates:**

- September 15, 2021: Registration for algorithm evaluation opens.
- December 8, 2021: Deadline for registering solvers to compete.
- January 16, 2022: Deadline for submitting solver output files.
- February 1, 2022: Deadline for submitting a short paper describing the method and results.
- February 15, 2022: Invitations to present at the workshop are sent.
- April 6-8, 2022: Concluding workshop is held at Rutgers University

Organizers are arranging special sections of journals for research contributions associated with the Challenge. Methodological contributions may be submitted to a special section of *Transportation Science* and software-oriented contributions may be submitted to *INFORMS Journal on Computing*. All submissions will undergo the journals' normal review process.

**Competition Organizers:**

- Claudia Archetti, ESSEC Business School (SDVRP, IRP)
- Tamra Carpenter, DIMACS
- Nicholas Kullman, Amazon (E-VRP, Ridehailing)
- Jorge Mendoza, HEC Montréal (E-VRP, Ridehailing)
- Eduardo Uchoa, Universidade Federal Fluminense (CVRP, VRPTW)
- Thibaut Vidal, Polytechnique Montréal (CARP)

**Challenge Advisors:**

- Catherine McGeoch, D-Wave Systems
- Panos Pardalos, University of Florida
- Mauricio Resende, Amazon

