

Description of the research group

University Gustave Eiffel results from the merging of IFSTTAR (the French Institute of Science and Technology for Transport, Development and Networks) and UPEM (University Paris-Est Marne-la-Vallée), in 2020. The team hosting Bianca Pascariu used to belong to IFSTTAR.

IFSTTAR, and hence University Gustave Eiffel, is one of the major players in the European research on the city and territories, transportation and civil engineering. The COSYS-ESTAS laboratory (Components and SYStems department - Evaluation of Automated Transport Systems and their Safety laboratory), in particular, is one of the leaders in the academic community focusing on railway transport.

In particular, the COSYS-ESTAS team has many years of experience in different national and regional research projects related to traffic management optimization and more specifically on modeling real-time scheduling and routing problems in complex railway junctions, stations and lines.

The COSYS-ESTAS team has worked on different optimization methods (constraint propagation, linear programming, metaheuristics, ...) and has developed decision support tools which integrate optimization modules, graphical interfaces and simulation. It also has remarkable expertise in distributed systems, middleware and interoperability, applying ICT standards on railway systems.

The team includes five permanent members: three researchers and two engineers. Members of the team are regularly part of program committees of main international conference in the field of evolutionary computation (EvoCop, Gecco, ANTS, ...).