



## Basarab Cable Stayed Bridge in Bucharest

### Javier MANTEROLA

Pr. Dr. Civil Engineer  
Carlos Fernández  
Casado,S.L.  
Madrid, SPAIN  
[jmanterola@cfcsl.com](mailto:jmanterola@cfcsl.com)

Javier Manterola, born 1936, received his civil engineering degree from the Technical Univ. of Madrid

### Antonio MARTÍNEZ

Dr. Civil Engineer  
Carlos Fernández  
Casado,S.L.  
Madrid, SPAIN  
[amartinez@cfcsl.com](mailto:amartinez@cfcsl.com)

Antonio Martínez, born 1963, received his civil engineering degree from the Technical Univ. of Madrid

### Sivia FUENTE

Civil Engineer  
Carlos Fernández  
Casado,S.L.  
Madrid, SPAIN  
[sfuente@cfcsl.com](mailto:sfuente@cfcsl.com)

Silvia Fuente, born 1977, received his civil engineering degree from the Technical Univ. of Madrid

## Summary

Basarab cable stayed bridge is part of Basarab Flyover Bypass in Bucharest, and consists of a road, a tramway and a multimodal station. The length of the main span is 168 m supported by one pylon. The main span holds a covered tramway station. The fact that the bridge crosses over the tracks from Basarab Railway Station was critical in the construction of the deck.

The most demanding action for the bridge is the seismic load requiring the use of an innovative combination of seismic isolation devices: viscoelastic damping devices located both at the main tower and at the main abutment and hysteretic devices on the ramp abutments.

**Keywords:** Cable-stayed bridge. Tramway Station. Steel-concrete composite bridge. Incremental launching deck. Seismic isolation devices.



Fig. 1 General view of the area of the bridge

## 1. Introduction

The structure is a cable stayed bridge, with a 168 m main span over several railway tracks, and a railway and underground station, with a secondary viaduct attached to the central part on either side