

# **Structural Art and Conceptual Design in Engineering Education: a Perfect Marriage**

Ignacio PAYA-ZAFORTEZA\*

\*Universitat Politècnica de València – ICITECH – Dept. de Ingeniería de la Construcción  
Camino de Vera S/N, 46023 Valencia, Spain  
igpaza@est.upv.es

## **Abstract**

Despite being a very important discipline, Structural Art is rarely taught as a full course at the schools of civil engineering. Therefore, strategies to introduce the main ideas of Structural Art in general courses on structural design, bridge engineering or building structures are needed.

Within this context, this contribution will detail how the main ideas of Structural Art are introduced on a general course on conceptual design that is compulsory for all the students (around 80 per year) doing the Master in Civil Engineering at the School of Civil Engineering of Valencia (Spain). The contribution will present: (1) the theoretical contents of the course and of the Structural Art component, (2) the practical activities developed (e.g. structured debates to foster critical thinking and activities where the students create their Decalogue of the “perfect structure”), (3) the methodologies followed to measure the students’ performance and (4) measures of the success of the approach.