

CLIMATE EXPO

A fusion of Science and Policy. Advancing a resilient, zero-carbon world

The role of education in civil engineering to face climate change

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Climate change is one of the biggest threats in our world. Therefore, developing and learning solutions to face climate change must be central in the education of our Engineers. If we will tackle the reduction of CO₂ emissions to zero by 2050, the changes introduced in our educational system must be fundamental changes. Small adjustments won't be enough. It will be necessary a cultural change to design, reuse, remodel and recycle our existing infrastructure instead of knocking down and rebuilding.

Minimise/reduce the carbon footprint for building design and construction must be central in our educational programs.

Professional values and ethics are more important than ever since our decisions will produce a loss of hundreds of thousands of lives and the extinction of hundreds of species every year if we do not stop emitting CO₂ into our atmosphere.

Resilience is today the most important skill to face the global problems and changes of our way of life on this planet.

A more sustainable, effective, and zero-emission education is possible. This paper will present the necessary changes that the education system must implement to face climate change changing our culture developing a more resilient society.

Keywords: climate change, CO₂ emissions, carbon footprint, professional values, ethics, resilience, zero-emission.

