

Using reconfigurable FPGAs in radioactive environments: challenges and possible solutions

Friday, 21 September 2012 09:00 (45 minutes)

Reconfigurable FPGAs are very appealing for mission critical applications where the capability of changing the hardware functionality on-the-fly (i.e., without expensive and time consuming maintenance operations) is a breakthrough. Space missions, as well as high energy physics experiments may benefit from the reconfiguration capability that modern FPGAs offer, but the designers have to face the daunting task of dealing with the effects of radioactive environments on FPGAs.

In this talk, we will address the effects of radioactive environments on modern reconfigurable FPGAs from the perspective of application designers. Moreover, we will present possible countermeasures against radiation effects.

Presenter: Prof. VIOLANTE, Massimo (Turin Politecnico)

Session Classification: P7