عنوان فارسی مقاله:
بهینه سازی وزنی پنل های کامپوزیتی مقاوم در برابر آسیب با ارزیابی استقراپی هزینه

عنوان انگلیسی مقاله:
Weight optimisation of damage resistant composite panels with a posteriori cost evaluation
5. Conclusions

Buckling and damage resistant composite stiffened panels have been designed by adopting the introduced optimisation procedure, based on genetic algorithms and oriented to the satisfaction of the minimum weight criterion with additional constraints on performances. Some T and I-stiffened panels minimum weight solutions have been asked to sustain a given admissible buckling load, while other minimum weight solutions have been imposed to be capable to sustain also a given impact load.

In general, damage resistant configurations have been found heavier (16–18% difference in weight) than the no damage resistance ones. A slight difference in terms of weight have been observed between the T and I-stiffened panels configurations; as expected, the I-stiffened panel configurations have been found lighter (3–4% difference in weight) due to the higher moment of inertia.