Abstract

Traditional evaluation method of camouflage texture effect is subjective evaluation. It's very tedious and inconvenient to direct the texture designing. In this project, a systemic and rational method for direction and evaluation of camouflage texture designing is proposed. Camouflage consists of things such as leaves, branches, or brown and green paint, which are used to make it difficult for an enemy to see military forces and equipment. A camouflage texture evaluation method predicated on SSIM (Weight structural homogeneous attribute) is given to access the effects of camouflage texture at first. Then nature image features between the camouflage texture and the background image are calculated to help direct the designing camouflage texture. In this project, we focus on the essential of the human visual system, and its relative significance of the different factors of affecting camouflage texture. The proposed method developed a computational vision model to evaluate the perceived differences between camouflage texture image and background image. And a variety of features, measuring thresholds for discriminating small changes in naturalistic images have been studied to direct the camouflage texture designing.
Method for Improving Camouflage Image Quality using Texture Analysis

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Index Terms

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