

Generative Adversarial and Dual Layered Deep Classification Techniques for Improving Block Constructions in Public Cloud

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Abstract: This paper provides the Generative Adversarial and Dual Layered Deep Classification techniques to improve the drawbacks in the methods of Absolute Moment BTC (AMBTC) technique in reconstruction error rate of standard BTC model. The image blocks generation and compression are the main phases of BTC model. This can be applied for both colour images and grey scale images. However, the conventional BTC procedures lacks for edge reconstructions and noise reductions in the output images. The first technique GABTC is developed with multi-layered Deep Neural Network (DNN) structures with GA neural models. The integration of both GA models and BTC principles improve the quality of block constructions and reconstructions significantly. The second proposed work is adopted the Dual layered Deep Classification Technique. Handling the image database with minimal storage complexity, minimal computational complexity and optimal quality is a significant task. To obtain these solutions, many image processing techniques are evolved. In the domain, image compression and decompression are more needed at any cost for effectively handling the complex image databases. E-Learning resources are widely used around the internet based knowledge sharing environments. In the E-Learning environment, multiple types of data resources are managed. Particularly, organizing the images is more crucial task where multiple qualities of images are appeared inside the E-Learning network databases. This problem expects solutions from effective image compression techniques. Block Truncation Coding (BTC) and Absolute Moment BTC (AMBTC) are the techniques provide useful and easy implementations of E-Learning based image compression platform. At the same time, they are limited to image dissimilarity rate. To maintain the quality of images in both compression and decompression phases, multilevel image analysis models and training phases are required. In this regard, this proposed system develops a Dual Layered Deep Classification and Truncation (DLDCT) technique. DLDCT comprises the baseline benefits of BTC, multi-layered Support Vector Machine (SVM) units and Deep Layered Convolutional Neural Network (DLCNN) for producing classified range of image pixels and compressing the images under controlled circumstances. This proposed DLDCT makes the image compression and decompression with determined observations. This reduces real time errors occur during image reconstruction phases. This proposed system has been implemented and compared with existing works with respect to significant performance parameters.

Keywords: Drug

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