SYSTEMS, METHOD AND COMPUTER READABLE MEDIUM FOR DETECTING FORGERY OF IDENTITY DOCUMENTS USING GENERATIVE ADVERSARIAL NETWORK

ABSTRACT

Systems, a method and a computer readable medium for detecting forgery of identity (ID) documents using a Generative Adversarial Network (GAN) are disclosed. A neural network model is trained using at least one image of a genuine ID document and at least one transformed image to obtain a two-channel mapping function. A generator model of the GAN is trained to generate a plurality of generated genuine ID document images. The trained neural network model converts an input image of the identity (ID) document to be verified into a new dewarped image of different angle using the two-channel mapping function. The trained generator model generates a valid image, when input with the input image. A processing unit generates a difference image by verifying the legitimacy of the generated valid image and the new dewarped image which is input to a support vector machine (SVM) model to output a verification result.

FIG. 1 accompanies the abstract.