over-fitting problems. The convolutional neural network based on the maximum overlap pooling reduces the overfitting problem to some extent. This paper presents a convolution neural network based on the maximal pooling and dropout technology of the overlapped overlapping region, and through the experimental results we can see that the accuracy rate of the training set is much lower than the test set, and its accuracy is higher.

Conclusions: Compared with the over-fitting problem of traditional convolution neural network, the convolution neural network proposed in this paper improves the image classification performance of the model for image classification, and achieves better classification results on CIFAR-10 data set.

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076 | Use of solar energy and ITC to reduce the carbon footprint in irrigation systems. The case study on a semiarid zone (Pliego) in the southeast of Spain

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Objectives: Due to the geographical characteristics and its irradiation index, the South of the European Union (EU) delimited by the Mediterranean Sea, is a perfect scenario for the employment of renewal energies. One of the applied fields where these energies can be used is the Agriculture. Moreover, Spain is the country of the EU with the highest number of annual sunshine hours. This allows obtaining a biggest efficiency in solar panel use.

The work will be finished with a comparison of economic saving and return on investment after the implementation of photovoltaic energy in our study area. Additionally the reduction of the carbon footprint in this cases study according to the last Unit Nations Conference about Global Change will be analyzed.

Methods: Firstly we need to know climatology, thermal regime, agroclimatic traits, and precipitation regime, for it has been studied the water needs and available resources and the economical expenses of the electric consumptions of different sources. Secondly, the Co2 emissions generated with the existing operation have been valued. Third, the possible measures to be taken to reduce emissions are studied As a result of these data it is obtained that in our case the best alternative is the use of solar energy through the design of a photovoltaic system controlled by sensors and ICT that allows us to optimize this energy applied to the governance of water and enhancing the use of reclaimed water for agricultural production of high quality fruit.

It should be noted that in semi-arid areas of the Mediterranean we should not only think of fruit / agricultural plantations as primary means of production, but also as an ecological method of protection against climate change, particularly against desertification.

In summary, this study seeks to collaborate to meet the three objectives of European policy within the Framework on Climate and Energy by 2030.

Conclusions: the application of these measures means an annual reduction of 782.5 tons of CO2 eqv not discharged into the atmosphere. These methods of primary production, such as agriculture, must be integrated into sustainable technological development and their objective is to mitigate climate change and improve the uses of reclaimed water applied to agriculture.

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077 | Production of fructo-oligosaccharides from levan treated with compressed hot water fluids

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Objectives: Fructooligosaccharides (FOSs) obtained from the hydrolysis of fructans can be used as additives in the