

**HANDWRITTEN MATHEMATICAL EQUATION
RECOGNITION AND CALCULATION USING
CONVOLUTIONAL NEURAL NETWORK**

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Abstract

Mathematical equation solving is a very common task done by almost all the people in their day to day activities. It is stated that the most common way of solving mathematical equations is by using pen and paper and manually performing the calculations. However, this is time consuming and as humans we intend to do various mistakes when performing calculations. Also, if we are using calculators, there is a possibility of entering the incorrect digits and symbols by mistake.

Therefore, this research discusses a solution for that, which is recognizing handwritten mathematical equations by taking a photo of the equation and give out the calculated solution. However, because of the ambiguities of handwritten mathematical digits and symbols it is said that handwritten mathematical equations recognition is very challenging. Therefore, handwritten mathematical equations recognition and calculation using image processing and CNN is said to be very challenging and growing research component in the domain of software engineering.

Keywords: Equation recognition, CNN, image processing