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In Collaboration with
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Recognition and Simplification System for Handwritten Mathematical Equations
- ImageMathic -

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Abstract

Handwritten mathematical equations are commonly used in various educational and professional settings. However, these equations can be difficult to read, understand, and use effectively, especially when they contain complex mathematical functions. Advanced mathematical equations recognition and simplification tools are developed widely for linear equations and polynomial equations. Even though certain tools are capable of solving more complex equations but, most of them are limited in their service for a specific count of equations and the accuracy level is very low. Hence the users have to spend a lot of money to get the services.

Therefore there is a need for a reliable approach to the recognition and simplification of mathematical equations, especially when they contain radicals or trigonometric functions.

After conducting a deep analysis of the functionalities offered by the existing handwritten mathematical equations recognition and simplification systems, the author focuses on implementing the solution for recognizing and simplifying handwritten equations such as radical equations and trigonometric equations. The proposed system combines a series of computer vision, image processing, and mechanisms of feature extraction to recognize and simplify the radical and trigonometric equations.

Keywords: Simplifying equations, Image Processing, Radical Equations, Trigonometric Equations, Feature Extraction