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Patent Search

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## Abstract:

We are living in the computer world where we can have the simplest answer of any deep problem by computer and with advanced software, many mathematical problems can also be solved easily by converting or applying latest tolls and languages like python, machine learning etc. In the same way there is a very complicated topic in mathematics named as tracing of curves. This topic play very important role but the tracing of any curve is very tough. In this Invention called "THE GRADIENT DESCENT ALGORITHIM FOR FINDING EQUATION OF THE TANGENTS FOR TRACING OF ANY CURVES" we have developed a new approach to draw the equation of the tangent on various points. This will help students to draw the tangent in minimum time. This invention helps us to save time and gives appropriate result. The gradient descent method used to get the exact equation of the tangent on the basis of input and output technique. The equation of the tangent play very wide role in our emerging technology where we have to trace a curve then the equation of the tangents must be drawn. To obtain equation of the tangent by this method is far better and much reliable in comparison with other methods. In the end of the invention, application of finding equation of the tangent during curve tracing and role of this method in various branches of engineering, has been explained briefly.

## Complete Specification

## Description:FIELD OF THE INVENTION

The current invention is related to find equation of the tangent with the help of the gradient descent method which is part of the machines learning, the invention having fast and updated concept by using latest computer technique of gradient descent method. The new invented method will helpful in almost all branch of engineering and engineering maths problems on tracing of curves.

#### BACKGROUND OF THE INVENTION

Tangent, in geometry is defined as a straight line that touches a given curve at one point. It is obvious that, at that point the slope of the curve is equal to that of the tangent. The extension of that line to all values of x is called the tangent line.

If we look on the background of tangent then it is obvious that many research have been taken and various definition to examined tangent on any curve has been published.

The first study has been taken by Euclid(c. 300 BC), in which the equation of the tangent to a circle presented. Another definition of tangent was presented by Apollonius(c. 225 BC), in this the definition of the tangent was defined as a line where no other straight line could fall between it and the curve. By considering a tangent as a pint moving along the curve, Archimedes (c.? 287 – c. ?212 BC) developed a model.

At different time slot different mathematician have explained the various definition of the equation of the tangent and various methods to draw the tangents was developed

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