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## Certificate

*It is here by certified that the paper ID : IJRASET51174, entitled  
Plant Disease Image Segmentation applying the K-Means Algorithm, Firefly, and  
Particle Swarm Optimisation*

*by  
Mandeep Kaur*

*after review is found suitable and has been published in  
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*(International Peer Reviewed and Refereed Journal)*

*Good luck for your future endeavors*

*By [Signature]*

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