POTENTIAL APPLICABILITY OF MESHFREE METHOD

USING LAGRANGE MULTIPLIER

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ABSTRACT

An example has been illustrated to demonstrate the potential application of EFG mesh – free method without the use of background mesh. MLS procedure is deployed to arrive at the shape function. Lagrange Multiplier method is used to enforce the boundary condition. An algorithm based on MATLAB coding is developed to obtain displacement profile along the length of the 2-D cantilever. The result obtained shows good agreement with the analytical solution.

KEYWORDS: Mesh-Free Method, Moving Least Square Method, Lagrange Multiplier