

AN INVESTIGATION OF THE STRESS IN THE ADHESIVE LAYER OF SQUARE MORTISE AND TENON JOINTS USING THE FINITE ELEMENT METHOD

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Abstract: *The work is concerned with research into modelling square mortise and tenon joints in parametric form. The generic objectives can be formulated as follows: to accurately model the wood structure and adhesive in order to develop a finite element model of square open and stub mortise and tenon joints in parametric form; to obtain stress distributions through mortise, tenon and adhesive layer; to study the influence of the adhesive area; to study the influence of the modulus of elasticity of the adhesive.*

Key words: *joints, FEM, stresses, adhesive.*