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Nota di contenuto	Structural Timber Design to Eurocode 5; Copyright; Contents; Preface to the Second Edition; 1 Timber as a Structural Material; 1.1 Introduction; 1.2 The structure of timber; 1.3 Types of timber; 1.3.1 Softwoods; 1.3.2 Hardwoods; 1.4 Natural characteristics of timber; 1.4.1 Knots; 1.4.2 Slope of grain; 1.4.3 Reaction wood; 1.4.4 Juvenile wood; 1.4.5 Density and annual ring widths; 1.4.6 Conversion of timber; 1.4.7 Seasoning; 1.4.8 Seasoning defects; 1.4.9 Cracks and fissures; 1.4.10 Fungal decay; 1.5 Strength grading of timber; 1.5.1 Visual grading; 1.5.2 Machine grading 1.5.3 Strength classes1.6 Section sizes; 1.7 Engineered wood products (EWPs); 1.7.1 Glued-laminated timber (glulam); 1.7.2 Cross-laminated timber (CLT or X-Lam); 1.7.3 Plywood; 1.7.4 Laminated Veneer Lumber (LVL); 1.7.5 Laminated Strand Lumber (LSL), TimberStrand®; 1.7.6 Parallel Strand Lumber (PSL), Parallam®; 1.7.7 Oriented Strand Board (OSB); 1.7.8 Particleboards and fibre composites; 1.7.9 Thin webbed joists (I-joists); 1.7.10 Thin webbed beams (box beams); 1.7.11 Structural Insulated Panels (SIPs); 1.8 Suspended timber flooring; 1.9 Adhesive bonding of timber

1.10 Preservative treatment for timber1.11 Fire safety and resistance; 1.12 References; 2 Introduction to Relevant Eurocodes; 2.1 Eurocodes: General structure; 2.2 Eurocode 0: Basis of structural design (EC0); 2.2.1 Terms and definitions (EC0, 1.5); 2.2.2 Basic requirements (EC0, 2.1); 2.2.3 Reliability management (EC0, 2.2); 2.2.4 Design working life (EC0, 2.3); 2.2.5 Durability (EC0, 2.4); 2.2.6 Quality management (EC0, 2.5); 2.2.7 Principles of limit state design: General (EC0, 3.1); 2.2.8 Design situations (EC0, 3.2); 2.2.9 Ultimate limit states (EC0, 3.3) 2.2.10 Serviceability limit states (EC0, 3.4)2.2.11 Limit states design (EC0, 3.5); 2.2.12 Classification of actions (EC0, 4.1.1); 2.2.13 Characteristic values of actions (EC0, 4.1.2); 2.2.14 Other representative values of variable actions (EC0, 4.1.3); 2.2.15 Material and product properties (EC0, 4.2); 2.2.16 Structural analysis (EC0, 5.1); 2.2.17 Verification by the partial factor method: General (EC0, 6.1); 2.2.18 Design values of actions (EC0, 6.3.1); 2.2.19 Design values of the effects of actions (EC0, 6.3.2); 2.2.20 Design values of material or product properties (EC0, 6.3.3)
2.2.21 Factors applied to a design strength at the ULS2.2.22 Design values of geometrical data (EC0, 6.3.4); 2.2.23 Design resistance (EC0, 6.3.5); 2.2.24 Ultimate limit states (EC0, 6.4.1-6.4.5); 2.2.25 Serviceability limit states: General (EC0, 6.5); 2.3 Eurocode 5: Design Of Timber Structures - Part 1-1: General - Comon Rules And Rules For Buildings (EC5); 2.3.1 General matters; 2.3.2 Serviceability limit states (EC5, 2.2.3); 2.3.3 Load duration and moisture influences on strength (EC5, 2.3.2.1); 2.3.4 Load duration and moisture influences on deformations (EC5, 2.3.2.2)
2.3.5 Stress-strain relations (EC5, 3.1.2)

Sommario/riassunto

Structural Timber Design to Eurocode 5 provides practising engineers and specialist contractors with comprehensive, detailed information and in-depth guidance on the design of timber structures based on the common rules and rules for buildings in Eurocode 5 - Part 1-1. It will also be of interest to undergraduate and postgraduate students of civil and structural engineering. It provides a step-by-step approach to the design of all of the commonly used timber elements and connections using solid timber, glued laminated timber or wood based structural products, and incorporates t