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Autore	Hsu Thomas T. C (Thomas Tseng Chuang), <1933->
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Nota di contenuto	 UNIFIED THEORY OF CONCRETE STRUCTURES; Contents; About the Authors; Preface; Instructors' Guide; 1 Introduction; 1.1 Overview; 1.2 Structural Engineering; 1.2.1 Structural Analysis; 1.2.2 Main Regions vs Local Regions; 1.2.3 Member and Joint Design; 1.3 Six Component Models of the Unified Theory; 1.3.1 Principles and Applications of the Six Models; 1.3.2 Historical Development of Theories for Reinforced Concrete; 1.4 Struts-and-ties Model; 1.4.1 General Description; 1.4.2 Struts-and-ties Model for Beams; 1.4.3 Struts-and-ties Model for Knee Joints; 1.4.4 Comments 2 Equilibrium (Plasticity) Truss Model 2.1 Basic Equilibrium Equations; 2.1.1 Equilibrium in Bending; 2.1.2 Equilibrium in Torsion; 2.1.5 Summary of Basic Equilibrium Equations; 2.2 Interaction Relationships; 2.2.1 Shear-Bending Interaction; 2.2.2 Torsion-Bending Interaction; 2.2.3 Shear-Torsion-Bending Interaction; 2.3.4 CI Shear and Torsion Provisions; 2.3.1 Torsional Steel Design; 2.3.2 Shear Steel Design; 2.3.3 Maximum Shear and Torsional Strengths 2.3.4 Other Design Considerations 2.3.5 Design Example; 2.4

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Sommario/riassunto	Unified Theory of Concrete Structures develops an integrated theory that encompasses the various stress states experienced by both RC & PC structures under the various loading conditions of bending, axial load, shear and torsion. Upon synthesis, the new rational theories replace the many empirical formulas currently in use for shear, torsion and membrane stress. The unified theory is divided into six model components: a) the struts-and-ties model, b) the equilibrium (plasticity) truss model, c) the Bernoulli compatibility truss model, d) the Mohr compatibility truss model, e) the