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Titolo	Shear Strengthening of T-beam with GFRP [[electronic resource] ] : A Systematic Approach // by Kishor Chandra Panda, Sudhirkumar V. Barai, Sriman Kumar Bhattacharyya
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Nota di contenuto	Chapter 1: Introduction -- Chapter 2: Shear Strengthening - a State of the Art Review -- Chapter 3: Technique for Shear Strengthening - An Experimental approach -- Chapter 4: Major Findings from Experiments on Shear Strengthening of Beams -- Chapter 5: Theoretical approach on Shear Strengthening of Beams -- Chapter 6: Numerical Approach on Shear Strengthening of Beams. .
Sommario/riassunto	This book presents a systematic approach to the experimental, theoretical, and numerical investigation of reinforced concrete (RC) T-beams strengthened in shear with glass-fibre-reinforced polymers (GFRP) with variation in transverse steel reinforcements. It discusses experiments conducted on simply supported RC T-beams for control beams with and without transverse steel reinforcements and beams

strengthened in shear with GFRP sheets and strips in different configurations, orientations, and variation of layers for each type of stirrup spacing. The book also includes a detailed numerical study using ANSYS performed in two stages. The first stage consists of selecting and testing relevant materials in the laboratory to establish the physical and mechanical properties of the materials. The second stage then involves testing beams for shear under two-point static loading systems. The test results demonstrate the advantage of using an externally applied, epoxy-bonded GFRP sheets and strips to increase the shear capacity of the beams. The finite element method (FEM) analysis results verify the experimental results. The book will serve as a valuable resource for researchers and practicing civil engineers alike.

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