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Nota di contenuto	From the content: The Role of Geotechnics in Addressing New World Problems -- Geosystem Sensing and Measurement -- Soil properties: Physics Inspired, Data Driven -- Linking Soil Water Adsorption to Geotechnical Engineering Properties.
Sommario/riassunto	This single-volume thoroughly summarizes advances in the past several decades and emerging challenges in fundamental research in geotechnical engineering. These fundamental research frontiers are critically reviewed and described in details in lights of four grand challenges our society faces: climate adaptation, urban sustainability, energy and material resources, and global water resources. The specific areas critically reviewed, carefully examined, and envisioned are:

sensing and measurement, soil properties and their physics roots, multiscale and multiphysics processes in soil, geochemical processes for resilient and sustainable geosystems, biological processes in geotechnics, unsaturated soil mechanics, coupled flow processes in soil, thermal processes in geotechnical engineering, and rock mechanics in the 21st century.

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