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	Nota di contenuto	Chapter 1. Introduction -- Part 1. Techniques -- Chapter 2. Meteorological Observations -- Chapter 3. River Flow and Catchment Monitoring -- Chapter 4. Meteorological Forecasting -- Chapter 5. Hydrological Forecasting -- Chapter 6. Demand Forecasting -- Chapter 7. Impact-based Forecasting and Warning -- Part 2. Selected Applications -- Chapter 8. Flood Forecasting -- Chapter 9. Flash Flood Warning -- Chapter 10. Drought Early Warning Systems -- Chapter 11. Reservoirs and Tidal Barriers -- Chapter 12. Water Quality Forecasting -- Chapter 13. Water Resources and Seasonal Forecasting -- Chapter 14. Climate Change Prediction.
	Sommario/riassunto	An award-winning text introducing the latest operational hydrometeorological forecasting and warning techniques for flood, drought, reservoir, hydropower, irrigation, water supply and water pollution applications. Hydrometeorology: Forecasting and Applications is the latest edition of this award-winning book intended for practicing engineers and scientists. It also provides useful background for undergraduate and postgraduate courses in engineering, earth sciences, environmental sciences, geography, meteorology and

hydrology. Operational examples include applications from the USA, UK, the Netherlands, Bangladesh and Nepal. Throughout, there is a focus on end-to-end warning systems, forecast uncertainty and risk-based and impact-based approaches. Hydrological forecasting topics include rainfall-runoff, flow routing, data assimilation, forecast verification and ensemble techniques. There are also updates to the text on weather radar, satellite precipitation estimates, hydrometry, low cost monitoring, numerical weather prediction, demand forecasting and dissemination of warnings, including the role of social media and citizen science. Applications include national and community based flood warning systems, flash flood guidance, famine and drought early warning systems, reservoir operations, and surface water, debris flow, ice jam, bathing water and harmful algal bloom alerts. Seasonal forecasting, land surface and global hydrological models are now discussed in more detail, including the opportunities from 'Big Data' and artificial intelligence, and a new chapter discusses approaches to predicting the hydrological impacts of climate change. The extensive sets of references have been revised and updated. "There are few books that have ever attempted to discuss all aspects of hydrometeorology in one volume. This one does so." From a review of the 1st edition in the Bulletin of the American Meteorological Society. Kevin Sene FRGS, FRMetS, CEng (MICE) is a scientist and writer with wide experience in flood risk management, water resources and hydrometeorology. His previous publications include books on flood warning, forecasting and emergency response and flash flood forecasting and warning (Springer, 2008, 2013).