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This invaluable research monograph presents a unified and fascinating theory of generalized functionals of Brownian motion and other fundamental processes such as fractional Brownian motion and Levy process - covering the classical Wiener-Ito class including the generalized functionals of Hida as special cases, among others. It presents a thorough and comprehensive treatment of the Wiener-Sobolev spaces and their duals, as well as Malliavin calculus with their applications. The presentation is lucid and logical, and is based on a solid foundation of analysis and topology. The monograph develop