

Generalization and classes of probability distributions

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Highlights of various methods for constructing probability distributions are given. The distributions are based on : power series, transformations, mixtures, sums of independent random variables, recursive relations, differential equations, geometry, generators, life-time, special functions and weighted functions . Distributions arising from stochastic processes are also discussed. Some of the distributions are generalizations of other distributions while others form classes. In this paper we shall present work done on constructions, properties, estimations and applications of these distributions in the School of Mathematics University of Nairobi.

Keywords: Generalizations; class of distributions; mixtures; recursive relations.