Glossary

1. Poisson Distribution

The Poisson distribution is a discrete probability distribution that expresses the probability of a given number of events occurring in a fixed interval of time and/or space if these events occur with a known average rate and independently of the time since the last event.

2. Poisson Process

A Poisson process is a stochastic process which counts the number of events and the time that these events occur in a given time interval.

3. Probability

The likelihood or chance of occurring of a particular event is known as Probability.

4. Binomial Distribution

The binomial distribution is the discrete probability distribution of the number of successes in a sequence of n independent experiments, each of which yields success with probability p.

5. Lambda

In probability theory, lambda represents the density of occurrences within a time interval, as modelled by the Poisson distribution. Lambda uppercase symbol is Λ and lowercase symbol is λ .

6. Fractional

The factorial of a non-negative integer n, denoted by n (!), is the product of all positive integers less than or equal to n.

7. Summation

Summation is the operation of adding a sequence of numbers; the result is their sum or total and is denoted as Σ .

8. Moments Distribution

The moment distribution method is a structural analysis method for statically indeterminate beams and frames developed by Hardy Cross. In the moment distribution method, every joint of the structure to be analysed is fixed so as to develop the fixed-end moments.

9. Moment Generating Function (mgf)

The moment-generating function of a random variable is an alternative specification of its probability distribution. Thus, it provides the basis of an alternative route to analytical results compared with working directly with probability density functions or cumulative distribution functions.

10. Cumulants

The Cumulants of a probability distribution are a set of quantities that provide an alternative to the moments of the distribution.

11. Coefficient

A coefficient is a number in front of a variable. It is a constant by which a variable is multiplied.

12. Skewness

Skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable. The skewness value can be positive or negative, or even undefined.

13. Kurtosis

Kurtosis is derived from Greek word kurtos which means bulging. Kurtosis is any measure of the "peakedness" of the probability distribution of a real-valued random variable.

14. **Meu**

The lower-case letter meu (μ) is used as a special symbol in many academic fields. The upper case mu is not used, since it is normally identical to Latin M. Meu represents the population mean or expected value in probability and statistics.

15. Variate

Variate is a single item in a group.