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FACULTY OF ENGINEERING & TECHNOLOGY

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LECTURE- 7

BSc (AG)
2nd Year , IIIrd Sem.
Statistical Methods
AES-213

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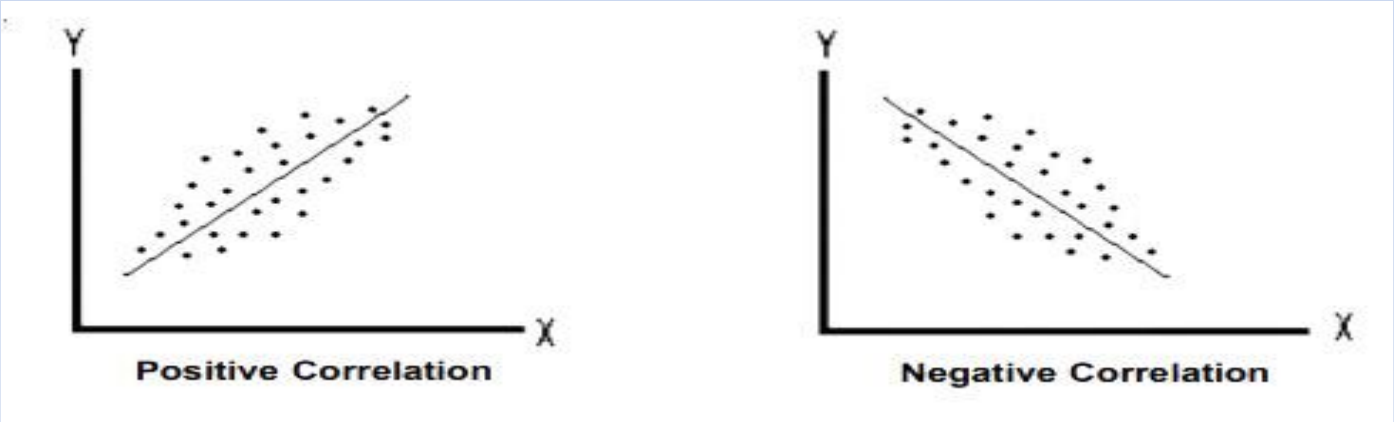
Outline of lecture

- Graphical Representation of data
- Scatter Diagram
- Pie Chart
- Conclusions
- Suggested Readings & References

Scatter Diagram

A scatter diagram or a dot chart enables us to find the nature of the relationship between the variables. If the plotted points are scattered a lot, then the relationship between the two variables is lesser. Scatter plots present data on the *x*- and *y*-axes and are used to investigate an association between two variables. A point represents each individual or object, and an association between two variables can be studied by analyzing patterns across multiple points. A regression line is added to a graph to determine whether the association between two variables can be explained or not.



Pie Chart

A pie chart, which is used to represent nominal data (in other words, data classified in different categories), visually represents a distribution of categories. It is generally the most appropriate format for representing information grouped into a small number of categories. It is also used for data that have no other way of being represented aside from a table (i.e. frequency table). the distribution of regular waste from operation rooms by their weight. A pie chart is also commonly used to illustrate the number of votes each candidate won in an election.

Conclusions

Text, tables, and graphs are effective communication media that present and convey data and information. They aid readers in understanding the content of research, sustain their interest, and effectively present large quantities of complex information.

As editors and reviewers will scan through these presentations before reading the entire text, their importance cannot be disregarded. For this reason, authors must pay as close attention to selecting appropriate methods of data presentation as when they were collecting data of good quality and analyzing them.

In addition, having a well-established understanding of different methods of data presentation and their appropriate use will enable one to develop the ability to recognize and interpret inappropriately presented data or data presented in such a way that it deceives readers' eyes.

Suggested Readings & References

1) Statistical Methods: P.N. Arora, Sumeet Arora & S. Arora; S. Chand & Company Ltd.

2) Fundamental of Mathematical Statistics: S.C. Gupta & V. Kapoor; Sultan Chand & Sons.

3) Statistics: M.R. Spiegel; Schaum's Outline Series, Mc-Graw Hill Publication.

4) Advanced Engineering Mathematics: Erwin Kreyszig; John Wiley & Sons Inc.

5) Elements of Statistics: J.P. Chauhan & S. Kumar; Krishna Publication.

* THANK YOU *