



**RUKMINI DEVI**  
Institute of Advanced Studies

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# DOSSIER

*On*

**Monthly "FDP - Cluster Analysis"**

**Research and Development Board**

*On*

**December 8 , 2018**



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## **FORM A**

### **Proposal :**

- **Name Of the event to be organized :** Monthly "FDP - Cluster Analysis"
- **Date :** December 8 , 2018
- **Time :** 10:00 AM-4:00 PM
- **Venue :** LAB 3, RDIAS
- **Organized By:** Research and Development Board
- **Motivation for the activity :** • The purpose of the FDP was to make the participants aware about cluster analysis with practical exposure. Dr. Seema Malik was the guest speaker who started lecture with the assumptions to be met for Cluster Analysis. Understanding the same will enable us to move in the right direction of our research work in terms of testing the hypothesis using SPSS. Thus, the primary objective of this programme was to enhance the research capabilities of faculty members and research scholars by making them equipped with the concepts related to Cluster Analysis.

## **Form B**

### **Part 1**

#### **Aim of the event :**

In current juncture of research, it is paramount requirement for the researchers to analyze their research work using proper statistical tool. For the same, researchers, academicians and industrialists often face problems in applying the test whenever there is heteroscedasticity. Hence, it is more important to enrich the intellectual capital by focusing on new knowledge integrated with the tools available like SPSS, Eviews, AMOS and R. Knowledge of applied research tools and methodology along with the use of software helps in integrating research and practice. To enrich the research skills of faculty members and research scholars, RDIAS conducted a One Day FDP on “Cluster Analysis” on December 8, 2018.

### **Part 2**

#### **Abstract :**

The FDP started with a brief welcome to all the participants by Ms. Akansha Rehani, Asst. Professor, RDIAS. The speaker of the day was Dr. Seema Malik. A warm welcome was given by presenting a bouquet to the guest by Mr. Miklesh Yadav, FDP Coordinator. Dr. Seema Malik enlightened the session with sharing her knowledge. The resource person set the momentum of the programme with a detailed session on Cluster Analysis. She started her session with few assumptions on Cluster analysis. Cluster analysis itself is not one specific algorithm, but the general task to be solved. It can be achieved by various algorithms that differ significantly in their understanding of what constitutes a cluster and how to efficiently find them. Popular notions of clusters include groups with small distances between cluster members, dense areas of the data space, intervals or particular statistical distributions. Clustering can therefore be formulated as a multi-objective optimization problem. The appropriate clustering algorithm and parameter settings (including parameters such as the distance function to use, a density threshold or the number of expected clusters) depend on the individual data set and intended use of the results. Cluster analysis as such is not an automatic task, but an iterative process of knowledge discovery or interactive multi-objective optimization that involves trial and failure. It is often necessary to modify data preprocessing and model parameters until the result achieves the desired properties. She made participants understand to check the normality and homogeneity of variance. Later on, she discussed various types of cluster analysis. She talked about hierarchical and non-hierarchical cluster analysis.

### **Part 3**

#### **Conclusion**

One Day FDP enriched all the external as well as internal participants with rigorous learning on various types of cluster analysis using SPSS. The FDP was very well appreciated by all the participants and equipped all the participants with new tools and techniques to apply in their respective research areas. Apart from this, she also talked about different measurement scales with suitable examples. Overall, the FDP proved to be highly fruitful, enjoyable and great learning experience for the entire participants.

## SnapShot



FDP Convener presenting bouquet to Dr. Seema Malik!!!



FDP Convener presenting a token of appreciation to Dr. Seema Malik!!!



Participants together at the end of session!!!