Self Organizing Maps: An Applied Tutorial in R

R Programming, FOSSEE Team

Welcome to the guided tutorial on Self Organizing Maps in R, designed by the FOSSEE R Team at IIT Bombay in 2021.

The purpose of this tutorial is to introduce students, professionals and researchers to the topic of Self Organizing Maps, a type of artificial neural network used for dimensionality reduction. This tutorial is designed for students of all ages and fields, without any prerequisites, however a fundamental understanding of neural networks is recommended. For understanding the basics of R programming you may refer to the spoken tutorial on R here: https://spoken-tutorial.org/tutorial-search/?search_foss=R&search_language=English. This tutorial is divided into 3 modules, which will introduce the subject in an incremental manner. You may utilize the modules in any order, depending on your comfort.

Learning Modules

- Module 1: Introduction to Self Organizing Maps
- Module 2: Solved Example of Self Organizing Maps: Iris Dataset
- Module 3: Application of SOMs in Real Life: Modelling the COVID-19 Pandemic in India

If you wish to contribute to this open source work, or provide your suggestions to the existing work, please reach out to contact-r(at)fossee(dot)in.