For studies session with subcomms and exco. The study sessions will divide into "Lecture" and "Tutorials":

Lecture: The Exco will in-turn host workshops that focuses on particular topics with example problems for the Subcomms to get a clue of what a topic is and how to apply technical concepts to solve example problems. For example, for "Data analytics with pandas", on lecture sessions, the Exco will go through how to use pandas and the analytics functionality of pandas. Using those functionalities to solve problems like "Analyzing sales data of a company in an Annum".

Tutorials: Will focus on problem solving, The Subcomms will be presented with problems and they can use the tools taught in lectures to solve the problems. For example, use pandas (and numpy, scipy, ...) to analyze the dataset of a company's HR fee and extract insight from it.

Presentations: We present "BIGGER" problems as compared to the Tutorials session and assign groups (randomly rotated) to solve the problems. Example: https://www.kaggle.com/pierpaolo28/stock-market-analysis-and-time-series-prediction. And we assign deadlines for them to present in front of the club. The presentation should adequately be inclusive of data visualization, analysis and proposed method to the problem.

The benefit of this framework is that we are not "spoon feeding" too much. Even though we do teach them on Lecture sessions like we do traditionally, on Tutorial sessions, they still got to brainstorm and think. Slacking is a no-no.

Descriptive & Inferential Statistics

- Data analytics with Pandas and Numpy
- Data Visualization Matplotlib
- Statistical testing Scipy
- Data analytics reporting with jupyter notebook (Automating reporting works with Jupyter).

Machine learning (Scikit-learn)

- Simple classification algorithms
- Simple regression algorithms
 - A bit on computer vision with opency
 - Sentiment analysis with simple ML.

Deep Learning

- Only the very fundamentals of simple
- fully connected network.
 - Overview of CNN on mnist classification.

Python fundamentals

- Syntax specifics