

National-Level 8 Days Online Workshop on Fundamentals of Data Analysis Using R

Department of Economics, Kanchrapara College

First thing first:

Hi, there! We, the Department of Economics, Kanchrapara College, extend a hearty welcome to you all. We are glad that you could join us amid the worst nightmare of our lifetime and therefore we sincerely thank you for taking part in this workshop. We believe, by the time we conclude the workshop you should be intrigued enough to explore the ever expanding world of “R”. Well, as JMK aptly said, “future is fundamentally uncertain”, let us all try our best to get the most of this workshop and let time and internet services decide the rest. In this regard, we would need your cooperation and active participation as much as you would need our sincere and relentless efforts to have a smooth and engaging learning experience. Okay, with these words let’s get down to business.

Logistics

Since you are *already* here, we refrain from going on talking about the usefulness of R. Moreover, isn’t that the whole purpose of this workshop - to demonstrate before you, as you go along, why we cannot afford to ignore one of the best data analysis softwares of our time, and especially when the software is free? As you all know, this workshop is spanned over four weeks and as of now the plan is to conduct the classes every Saturday and Sunday. So, stay tuned. Kindly note down the following information and do the needful.

1. Telegram Installation:

Install Telegram on your PC (in the most unlikely event you can’t do so, install it on your phone). It would be very handy to communicate during the class. Why? You will see it for yourself. Here is the link to join our Telegram group(click on it): **Link to Join Telegram Group**

2. Google Classroom:

Now that almost all of us are accustomed to Google Classroom, we thought to create one for our workshop. The link to join the classroom can be accessed by clicking on **Google Classroom Link**. We presume this would ease sharing the materials and other necessary links and documents with all the participants at one go. No worries, we shall have our Telegram group for quick communication, doubt clearance etc. If you face any issue regarding this, please feel free to contact us.

3. Class Timings and Course Outline:

- 5th June, 2021: 3:30 pm - 6:00 pm (First day we shall have to start a bit early)
- 6th June, 2021 to 27th June, 2021: 3:45 pm - 6:00 pm [Remember, classes are ONLY on Saturdays and Sundays]

We shall share the course outline as a separate document just to keep things a bit tidy.

You all will receive the links to join the Google meet.

4. Installation of R and RStudio (Yes these two are different):

We provide the official links below using which you can download and install both R and RStudio on your PC as per the configuration of your system. Remember, R is both necessary and sufficient, RStudio is necessary (to make life simpler, faster, beautiful and more exciting) but not sufficient alone. To work with RStudio we need R (Base). So please install both [Keep on reading please. You can install them later].

Necessary Links (Click on the options):

- **Install R**
- **Install RStudio**

You can download the softwares and install them just like any other software.

When you go to the RStudio website, scroll down and you might see something like this:

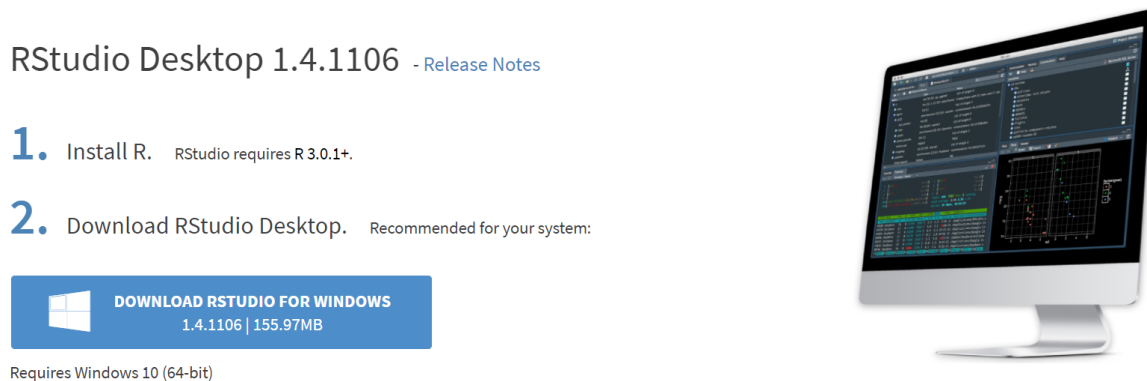


Figure 1: Install as per your need

Scroll down further and you will see the list of all the options. You can choose from there as well if the previous step (shown in the image) does not serve your purpose. For Windows 8 we might have to search a bit. [No worries. Keep reading.]

There are many sources online which can guide you about how to install R and RStudio. We are sharing a random and relatively newer video (literally the first one that was shown to us on YouTube search). We found this one - **video tutorial for installing R and RStudio on Windows**. You are more than welcome to find some good source for the same and pass it on to others. To recall, we have already shared the links from which you can chose your desired version of R and RStudio.

But, what if we were to tell you that you can complete this entire workshop without bothering about installing R and RStudio on your PC? You can just focus on learning to work with (R and) RStudio and worry about installing the softwares later. HOW ABOUT THAT?

5. RStudio Cloud:

While having the software installed on your PC is desirable in the long run, we shall however conduct the classes using what is known as **RStudio Cloud**. Basically, whatever you can do in your PC, you can do that on the cloud. What's the benefit of using a cloud? Since we shall be time-bound, we would like to minimize the time needed to address technical the glitches associated with installing R (in case you face it), RStudio and the potential conflicts between the OS in your PC and the R-packages you might want to use etc. It is not that you would experience such turmoils all the time, but we are doing this just to be on the safer side during the workshop. Using RStudio would help us immensely in avoiding those unwarranted albeit educating halts. In short, you don't *need* to install the softwares (**AS OF NOW**) and hopefully the configuration of your system would not create any issue if we do the whole class on RStudio Cloud. However, you can have the softwares ready in your system which you can use to practice on your own. But for now, Hail RStudio Cloud!

Watch these following videos for some introduction to RStudio Cloud

A. RStudio Cloud Video 1

B. RStudio Cloud Video 2

Each one of you would receive an invitation link from our resource person in your respective email (the one you have provided while registering). If you just click on that, it will navigate you to open an account in RStudio. You open an account and voila! You are all set. It is similar to joining a Google classroom through invitation from the teacher.

6. Registration Fee:

The following is our fee structure for joining this workshop.

- Students (UG/PG): Rs. 1000/-
- Research Scholars: Rs. 1200/-
- Faculties/Professionals: Rs. 3000/-

Please do pay the registration fee by 29th June, 2021. It should be paid to:

Name: Saswata Guha Thakurata
A/C No: 30442321870
Bank Name: State Bank of India
Branch: Kanchrapara
Branch Code: 001487
IFSC Code: SBIN0001487
Gpay number: 9177694604
UPI: saswata.economics@oksbi

Kindly note, while you are paying the fee, there should be some option like “remarks” or like that blank box in GPay where we write something about the transaction. Please mention the first three letters of your first name (in capital letters) followed by _RWS there. For example, if your first name is Natasha, you should write NAT_RWS.

Once you have paid the registration fee, please do the following:

1. Keep a proof of the same which you would then have to email to: **saswata@kpcoll.ac.in**

Once we hear from you, we shall try our best not to delay much in confirming the receipt of your payment.

2. Fill up this **Google Form**. This finally confirms a window seat for you. Welcome on board.

We need your active participation:

As you understand, it is not that easy, and sometimes even weird, to conduct online classes. We all wish this ends sooner. But now that we have to do this, why don't we try to make the most of it. Allows us to reiterate that your active participation (*especially during the class*) plays a decisive role in making this virtual journey an effective one. So, we decided to begin with some warm up.

R has many in-built data sets which one can use at any point. However, for our workshop we have wished a bit differently. We thought of collecting some data from our own context and use them for the workshop. For this, open this (click on it) **SURVEY FOR R WORKSHOP**.

Each participant has to collect at least **10 responses** (including herself/himself). You can just share the link with your friends, colleagues, teachers, relatives or anyone else interested (*please try not to stay confined to people of your age group alone*). Those of you who are from the same institution please ensure that you don't end up surveying the same set of people. That would just kill the fun and we would not be able to do any useful statistical analysis. The last date of the survey is 30th June, 2021. The sooner we collect the data,

the sooner we can start getting it ready to be used during the workshop. You can say, this is assignment number 0.0 - just joking! Let's do this.

The Participants:

Before we conclude this document, why don't we present a quick overview of our participants in terms of who they are (designation and organization)? In stead of writing some boring numbers, let's look at this graph below:

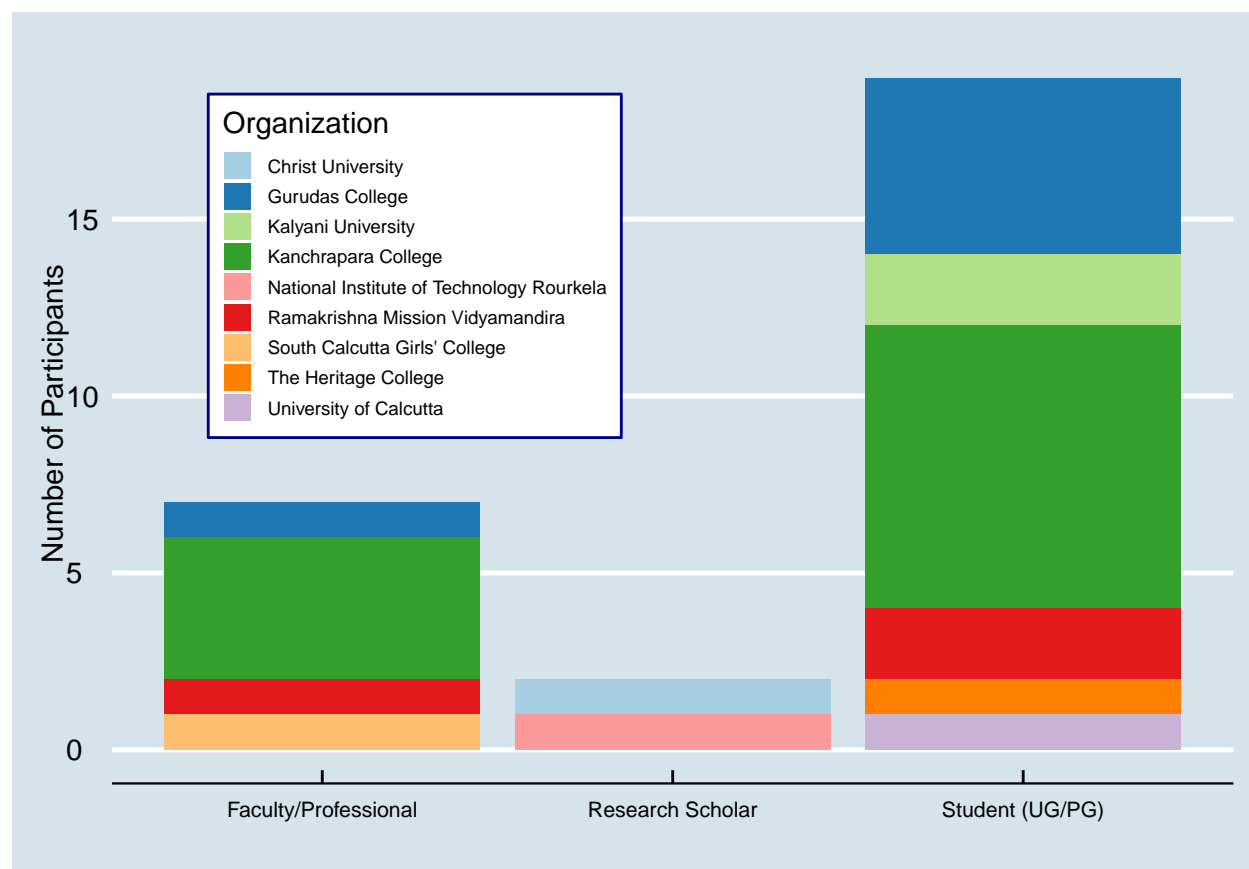


Figure 2: Composition of Participants

We hope this graph serves its due purpose. Now, you have a broad idea about the composition of the workshop. By the way, this whole document including this graph was prepared using Rmarkdown (inside RStudio). Yes, you can - write, calculate, generate graphs - do everything at one place and reproduce it later almost effortlessly. That's just one of the many reasons why people love RStudio and specially RMarkdown, something that you are going to learn very soon (assuming you don't know it already).

Let's Buckle Up:

Oh! that was a lot of info. It's time to conclude this document. Once again, we welcome you all and hope that you have a nice learning experience with us. We look forward to your participation. At any stage, if you have any question/query please don't hesitate to communicate with us.

Reach us at: +91-9177694604 (call/text message/Telegram message) or saswata@kpcoll.ac.in

Stay safe.