



राष्ट्रीयइलेक्ट्रॉनिकीएवंसूचनाप्रौद्योगिकीसंस्थान,कालीकट  
National Institute of Electronics & Information Technology, Calicut



सत्यमेव जयते

Ministry of Electronics and  
Information Technology  
Government of India

# Online Courses Prospectus

ISO 9001-2015 Certified

## Data Analytics with Python, R & Hadoop

4<sup>th</sup> Aug – 3<sup>rd</sup> Sep 2021  
(2 live sessions daily)

### Course Description

This is a basic course on Big Data Analytics which will enable the students to use Python / R / Hadoop tools for doing Data Analytics. The course includes online live sessions, assignments and forums.

Theory and Lab sessions (Afternoon) will be provided via web conferencing and VPN.

[Click Here to Register](#)

## Who can attend?

Anyone who is interested in learning Data Analytics & designed for.

- Students pursuing engineering or any computer science degree,
- Working Professionals.
- Research students
- Teachers

## Course Content

No	Major Topics
1	Linux concepts
2	Data analytics - concepts
3	Programming and Data analysis using Python
4	Programming and Data analysis using R
5	Using Hadoop

## Prerequisite

Knowledge of Programming Language.

## Fee and important dates

Course Fee	Rs. 6000/- (Including GST)
Course Start Date	04 <sup>th</sup> Aug 2021
Course End Date	03 <sup>rd</sup> Sep 2021
Last date for registration and payment	02 <sup>nd</sup> Aug 2021
Sharing of course page	04 <sup>th</sup> Aug 2021

## Detailed Syllabus and time table (Session wise)

No	Date	Time	Topic (Faculty)
1	04 Aug 2021	02:00PM-03:00PM	Data Analytics – Introduction ( VM )
2	04 Aug 2021	03:30PM-04:30PM	Lab Session (PKG)
3	05 Aug 2021	02:00PM-03:00PM	Linux –Concept, Commands etc. (PKG)
4	05 Aug 2021	03:30PM-04:30PM	Linux Lab Session (PKG)
5	06 Aug 2021	02:00PM-03:00PM	R Programming basics (VM)
6	06 Aug 2021	03:30PM-04:30PM	R Lab Session (VM)
7	09 Aug 2021	02:00PM-03:00PM	Linux – native tools for data analysis (PKG)
8	09 Aug 2021	03:30PM-04:30PM	Linux Lab Session (PKG)
9	10 Aug 2021	02:00PM-03:00PM	Python programming (PKG)
10	10 Aug 2021	03:30PM-04:30PM	Python Lab Session (PKG)
11	11 Aug 2021	02:00PM-03:00PM	Reading/manipulating data in R –I (VM)
12	11 Aug 2021	03:30PM-04:30PM	R Lab Session (VM)
13	12 Aug 2021	02:00PM-03:00PM	Data structures in Python (PKG)
14	12 Aug 2021	03:30PM-04:30PM	Python Lab Session (PKG)
15	13 Aug 2021	02:00PM-03:00PM	Introducing Hadoop, HDFS (RCB)
16	13 Aug 2021	03:30PM-04:30PM	Python / Hadoop Lab Session (PKG/ RCB)
17	16 Aug 2021	02:00PM-03:00PM	R – Data Visualization (VM)
18	16 Aug 2021	03:30PM-04:30PM	R Lab Session (VM)
19	17 Aug 2021	02:00PM-03:00PM	Hadoop – Developing programs (RCB)
20	17 Aug 2021	03:30PM-04:30PM	Hadoop Lab Session (RCB)
21	18 Aug 2021	02:00PM-03:00PM	OOP, Database programming in Python (PKG)
22	18 Aug 2021	03:30PM-04:30PM	Python Lab Session (PKG)
23	24 Aug 2021	02:00PM-03:00PM	R – Correlation, Regression (VM)
24	24 Aug 2021	03:30PM-04:30PM	R Lab Session (VM)
25	25 Aug 2021	02:00PM-03:00PM	Hadoop- Mapreduce I (RCB)
26	25 Aug 2021	03:30PM-04:30PM	Hadoop Lab Session (RCB)

No	Date	Time	Topic (Faculty)
27	26 Aug 2021	02:00PM-03:00PM	R- Probability & Statistics (VM)
28	26 Aug 2021	03:30PM-04:30PM	R Lab Session (VM)
29	27 Aug 2021	02:00PM-03:00PM	Introduction to ML in R (VM)
30	27 Aug 2021	03:30PM-04:30PM	R Lab Session (VM)
31	31 Aug 2021	02:00PM-03:00PM	Python – numpy module (PKG)
32	31 Aug 2021	03:30PM-04:30PM	Python Lab Session (PKG)
33	01 Sep 2021	02:00PM-03:00PM	Hadoop- Mapreduce II (RCB)
34	01 Sep 2021	03:30PM-04:30PM	Hadoop Lab Session (RCB)
35	01 Sep 2021	02:00PM-03:00PM	Python – Data analysis using pandas (PKG)
36	01 Sep 2021	03:30PM-04:30PM	Python Lab Session (PKG)
37	02 Sep 2021	02:00PM-03:00PM	Hadoop- Mapreduce III (RCB)
38	02 Sep 2021	03:30PM-04:30PM	Hadoop Lab Session (RCB)
39	03 Sep 2021	02:00PM-03:00PM	Plotting using matplotlib, seaborn (PKG)
40	03 Sep 2021	03:30PM-04:30PM	Python Lab Session (PKG)

## Faculty Profile

Qualification and experience of the faculty handling the sessions

- Ms. Vimala Mathew, Scientist/Engineer ‘E’ (VM)
- Ms. Reshma C. B., Senior Technical Officer (RCB)
- Mr. Prasoon Kumar KG, Principal Technical Officer (PKG)

## Course Coordinator

### Prasoon Kumar KG

Principal Technical Officer

0495 2287266 (o)

## Certificate

Participation Certificate will be issued to all candidates who complete the program successfully.

## Minimum Requirements

Attendees must have a computer system with a good internet connection.

## For more details

For more details contact [itcourses@calicut.nielit.in](mailto:itcourses@calicut.nielit.in)  
9446732691 (from 9.00AM to 5.30PM)

## Terms and Conditions

*1. In case any registered candidate could not attend the online session due to technical issue at their side there will not be any refund of the course fee and the sessions will not be repeated.*

*2. In case the online course is cancelled /postponed due to some technical issue at NIELIT side and new date is not convenient to the candidate, our liability is limited to the refund of the course fee and NIELIT shall not be responsible for any consequential damages.*

For more details about our institution and facilities visit us

Website: <http://nielit.gov.in/calicut>

Twitter: [https://twitter.com/CAL\\_NIELIT](https://twitter.com/CAL_NIELIT)

Facebook: <https://www.facebook.com/CAL.NIELIT>

[Click Here to Register](#)

Autonomous Scientific Society of  
Ministry of Electronics & Information Technology,  
Govt. of India



### **NIELIT Calicut**

Post Box No. 5, P. O. NIT Campus,  
CALICUT – 673601, Kerala

Reach Us on WhatsApp 9446711666

Tel. : 0495-2287266

Mob. : 9446011266

Email : [trng@calicut.nielit.in](mailto:trng@calicut.nielit.in)

URL : <http://nielit.gov.in/calicut>