



Department of Data Science

St. Joseph's College (Autonomous)

Accredited at A++ Grade (4<sup>th</sup> Cycle) by NAAC,

Special Heritage Status awarded by UGC

Tiruchirappalli – 620 002, India.



**DATASCIENCE ASSOCIATION**

**Department of Data Science**

**ST. JOSEPH'S COLLEGE (AUTONOMOUS)**

ACCREDITED AT A++ BY NAAC (CYCLE IV)

COLLEGE WITH SPECIAL HERITAGE STATUS

COLLEGE WITH POTENTIAL FOR EXCELLENCE

TRICHY, TAMIL NADU

# **VALUE ADDED COURSE ON " DATA SCIENCE TOOLS"**

**PROGRAMME COORDINATOR**

**Dr. A. Beatrice Dorothy**

**Assistant Professor**

**Department of Data Science**

**St. Joseph's College (Autonomous)**

**Trichy**



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**Report on” Value-Added Courses for the academic year 2022-2023”**

|   |                    |  |            |  |   |
|---|--------------------|--|------------|--|---|
| <b>DATE FROM:</b>                         | 02/08/2022         | <b>To:</b>                             | 09/11/2022 |  |   |
| <b>Name of the Course and Coordinator</b> | Data science tools |  |            | Dr. A. Beatrice Dorothy                          |   |
| <b>No. of Students Enrolled</b>           | 59                 |  |            |  |   |
| <b>Mode (Online/Offline / Blended)</b>    | Offline            |  |            |  |   |
| <b>Course Code</b>                        | 21PDS3VAC7         | <b>Duration of the Course (in hrs)</b> | 60         | <b>No. of Times offered during the Same Year</b> | 1 |



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## **Report on Value Added Programme**

### **Data science tools**

**Course Code:** 21PDS3VAC7

**Academic Year:** 2022-2023

**Course in-charge:** Dr. A. Beatrice Dorothy

**Semester:** III

### **Objective:**

To nurture the students with various tools used in the industry in regards with the field data science

### **Report:**

- The Department of Data Science for the academic year (2022– 2023) organized a Value-Added Programme “Data science tools” for the II PG students.
- The course started by 2<sup>nd</sup> August 2022 and ended on 9<sup>th</sup> November 2022 .A Total of 59 students enrolled and completed the “Data science tools” Course handled by Dr. A. Beatrice Dorothy, Assistant Professor, Department of Data Science, St. Joseph's College (Autonomous), Tiruchirappalli.
- The flow of the course mainly concentrates on amplifying the abilities of the students in concern with the various tools and software like Microsoft Excel, Talend, Informatica, QlikView
- The fundamentals and installation procedure of the respective tools were provided
- The course aims to create a greater understanding about the tools and its functions to bring up the efficient usage of it in the workplace and in industry
- Hand-on training were provided and assessments were held .

Signature of the Head

**HOD**  
Department of Data Science  
St. Joseph's College (Autonomous)  
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## **SYLLABUS**



**Semester II**

**Hours/Week: 6**

**21PDS2VAC4**

## **Data Visualization**

### **Course Outcomes**

On successful completion of this course, the students will be able to

1. Recall the basic concepts of Data Connectivity.
3. Examine the features of Power BI and Tableau.
3. Perform Data manipulation using Power BI and Tableau.
4. Interpret the Mappings and Workflows of Power BI and Tableau.
5. Evaluate the performance of the model.
6. Visualize the data to get the meaningful insights.

### **Unit – I**

**(12 hrs)**

**Introduction to Power BI** - Features of Power BI - Building Blocks of Power BI - Power BI Tools - Installing the Power BI Desktop App - Connecting to Data Sources - Getting Data from Excel Files - Using Power BI Desktop - Installing the Power BI Gateway.

### **Unit – II**

**(12 hrs)**

**Getting Online Data** - Getting Data from Facebook - Getting Data from other Web Sources - Getting Data from Twitter - Creating Datasets - Creating a Dataset from a Single Data source - Creating a Dataset from a Multiple Data Sources - Refreshing Data in a Dataset - Creating Visualizations from Datasets - Creating Reports - Creating Dashboards.

### **Unit – III**

**(12 hrs)**

**Introduction to Tableau Desktop** - Analyzing Data - Connecting to your data in Tableau - Understanding Tableau worksheets - Starting to analyze data - Enhancing the analysis - Creating Dashboards - Understanding the Basics - Working with Dimensions and Measures



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### Unit – IV

(12 hrs)

**Visualizing Data** - Using the Shelves and Cards - The Columns shelf - The Rows shelf - Using a quick filter to exclude data - The Filters shelf - Pages shelf - Marks card - Modifying the View - Fitting the space - Adding annotations - Adding mark labels - Understanding the Tableau Desktop Environment.

### Unit – V

(12 hrs)

**Understanding the Chart Options** - Viewing Your Data - Adding Worksheets - Creating Dashboards

## PHOTOGRAPHS





## Department of Data Science

St. Joseph's College (Autonomous)



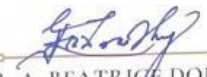

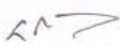
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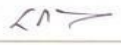
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### CERTIFICATES:

|  |  |   |
|--|--|---|
|   | <p>Department Of Data Science<br/>St. Joseph's College (Autonomous)<br/>Accredited at A** by NAAC (Cycle IV)<br/>College with Special Heritage Status<br/>College with Potential for Excellence<br/>Tiruchirappalli - 620002,<br/>Tamil Nadu, India.</p> |    |
| <p><b>CERTIFICATION OF PARTICIPATION</b><br/>THIS IS TO CERTIFY THAT</p>   |  |   |
| <p><u>SHIVANI . A</u></p>  |  |   |
| <p>Participated in the value added course " DATA SCIENCE TOOLS "<br/>during the period from 02/08/2022 to 09/11/2022 conducted by the<br/>Department of Data Science, St. Joseph's College (Autonomous),<br/>Tiruchirappalli - 620002.</p> |  |   |
| <p><br/>DR. A. BEATRICE DOROTHY<br/>Programme Coordinator</p>   |   | <p><br/>DR. L. AROCKIAM<br/>Head of the Department</p> |

|  |  |   |
|--|--|---|
|   | <p>Department Of Data Science<br/>St. Joseph's College (Autonomous)<br/>Accredited at A** by NAAC (Cycle IV)<br/>College with Special Heritage Status<br/>College with Potential for Excellence<br/>Tiruchirappalli - 620002,<br/>Tamil Nadu, India.</p> |    |
| <p><b>CERTIFICATION OF PARTICIPATION</b><br/>THIS IS TO CERTIFY THAT</p>   |  |   |
| <p><u>REGIO ANTONY DASS S</u></p>  |  |   |
| <p>Participated in the value added course " DATA SCIENCE TOOLS "<br/>during the period from 02/08/2022 to 09/11/2022 conducted by the<br/>Department of Data Science, St. Joseph's College (Autonomous),<br/>Tiruchirappalli - 620002.</p> |  |   |
| <p><br/>DR. A. BEATRICE DOROTHY<br/>Programme Coordinator</p>   |   | <p><br/>DR. L. AROCKIAM<br/>Head of the Department</p> |





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**ATTENDANCE SHEET**

**I M. Sc. Data Science (2022-24) Batch**

| S.NO | D. NO.   | NAME                 | SIGNATURE |
|------|----------|----------------------|-----------|
| 1    | 22PDS801 | DEEPAN P             |           |
| 2    | 22PDS802 | CHARULATHA D         |           |
| 3    | 22PDS803 | NISHIN JERRY X I     |           |
| 4    | 22PDS804 | NIRMAL JOEL X I      |           |
| 5    | 22PDS805 | HARIVIGNESH S        |           |
| 6    | 22PDS806 | MADHAVAN S A         |           |
| 7    | 22PDS807 | HATLIN JOHEIT J A    |           |
| 8    | 22PDS808 | EDWIN PRAKASH J      |           |
| 9    | 22PDS809 | SUJITH NAMASIVAYAM P |           |
| 10   | 22PDS810 | AARTHI S             |           |
| 11   | 22PDS811 | KANIMOZHI A          |           |
| 12   | 22PDS812 | NIXON L              |           |



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|    |          |                         |                                |
|----|----------|-------------------------|--------------------------------|
| 13 | 22PDS813 | LEANDER PIOUS X         | <i>Leander Pious X</i>         |
| 14 | 22PDS814 | JESTIN.S                | <i>J. Jestin</i>               |
| 15 | 22PDS815 | BHUVANA N               | <i>Bhuvana N</i>               |
| 16 | 22PDS816 | ARUN PRASATH            | <i>Arun Prasath</i>            |
| 17 | 22PDS817 | SARA ROVENA S           | <i>S. Sara Rovena</i>          |
| 18 | 22PDS818 | AGNES SALOMI TANIA P    | <i>Agnes Salomi Tania P</i>    |
| 19 | 22PDS819 | DIVINE REGAN A          | <i>Divine Regan A</i>          |
| 20 | 22PDS820 | ANCELIN GENO A          | <i>Ancelin Geno A</i>          |
| 21 | 22PDS821 | MICHEAL ANTONY A        | <i>A. Michael Antony</i>       |
| 22 | 22PDS822 | CINCIYA THOMAS MELATHIL | <i>Cinciya Thomas Melathil</i> |
| 23 | 22PDS824 | JACKSHINIS              | <i>Jackshinis</i>              |
| 24 | 22PDS825 | JOE AROWIN A            | <i>Joe Arowin A</i>            |
| 25 | 22PDS826 | DEVADHARSHINI R         | <i>Devadharshini R</i>         |
| 26 | 22PDS827 | DOUGLAS JAMES P         | <i>Douglas James P</i>         |
| 27 | 22PDS828 | MARTIN PRABHU S         | <i>Martin Prabhu S</i>         |
| 28 | 22PDS829 | MERWIN RAGUL I          | <i>Merwin Ragul I</i>          |
| 29 | 22PDS830 | JANANIMEENA R           | <i>Jananimeena R</i>           |
| 30 | 22PDS831 | SHIVASHANKARI E         | <i>Shivashankari E</i>         |
| 31 | 22PDS832 | JASMINE A B             | <i>Jasmine A B</i>             |
| 32 | 22PDS833 | SIVAPRIYA K             | <i>Sivapriya K</i>             |
| 33 | 22PDS834 | JOSEPH T J              | <i>Joseph T J</i>              |
| 34 | 22PDS835 | INFANT JEYABAL A        | <i>A. Infant Jeyabal</i>       |
| 35 | 22PDS837 | DHANASEKAR D            | <i>Dhanasekar D</i>            |
| 36 | 22PDS838 | STEPHEN RAJ S           | <i>S. Stephen Raj</i>          |
| 37 | 22PDS839 | M.LEENA                 | <i>M. Leena</i>                |
| 38 | 22PDS840 | ANUBHARATHI P           | <i>Anubharathi P</i>           |
| 39 | 22PDS841 | ESTHER JENIFER P        | <i>Esther Jenifer P</i>        |
| 40 | 22PDS842 | SUMAIYA SULTAN          | <i>Sumaiya Sultan</i>          |
| 41 | 22PDS843 | ESWAR E                 | <i>E. Eswar</i>                |
| 42 | 22PDS844 | MUGISHA CIELLA DANILLA  | <i>Mugisha CIELLA Danilla</i>  |





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|    |          |                         |                |
|----|----------|-------------------------|----------------|
| 43 | 22PDS845 | NANDINI K               | K. R. S. S. S. |
| 44 | 22PDS846 | PRASANTH R              | R. R. R.       |
| 45 | 22PDS847 | UDHAYA P                | P. Udhaya      |
| 46 | 22PDS849 | PADMAVATHI S            | S. Padma       |
| 47 | 22PDS850 | NIRANJANA               | A. K. P.       |
| 48 | 22PDS851 | AHAASRAJ RR             | A. R. R.       |
| 49 | 22PDS852 | GOBINATH T              | T. G. S.       |
| 50 | 22PDS853 | KULARANJITH K           | K. K. S.       |
| 51 | 22PDS854 | RAMANAN P               | P. R. S.       |
| 52 | 22PDS857 | PRAVEEN KUMAR P         | P. P. S.       |
| 53 | 22PDS858 | PILAVENDRAN A           | A. P. S.       |
| 54 | 22PDS859 | AMALORPAVA BELCIYA S    | S. A. S.       |
| 55 | 22PDS860 | JOE NICKSON V           | V. N. S.       |
| 56 | 22PDS862 | LILLY J S               | S. L. S.       |
| 57 | 22PDS863 | INFANT JEGAN FERNANDO H | H. J. S.       |
| 58 | 22PDS864 | HARIHARAN R             | R. H. S.       |
| 59 | 22PDS865 | RITHICK T               | T. R. S.       |