



eMasters IN DATA SCIENCE & DATA ANALYTICS

Master Insights, Excel as Leaders

2 Years | Online Immersive Sessions | Graduate from an IIT

Discover Brilliance, Define Tomorrow - Engage with IIT Bhilai's Legacy

Indian Institute of Technology (IIT) Bhilai was established in the state of Chhattisgarh by the Ministry of Education in the year 2016.

IIT Bhilai is presently housed in its permanent campus at Kutelabhata, Bhilai, Chhattisgarh.

At IIT Bhilai, we understand the demands of the dynamic corporate landscape, and our eMasters programs are meticulously crafted to provide a seamless blend of academic excellence and real-world applicability. Whether you aspire to advance in your current role, switch career paths, or stay ahead of industry trends, our eMasters courses offer the strategic edge you need to thrive in a competitive landscape.





Program Overview

The eMasters program in Data Science & Data Analytics is designed to provide students with a comprehensive understanding and skills in the fields of data science and analytics. The curriculum of eMasters in Data Science and Analytics focuses on teaching students to harness the power of data, employ analytics techniques, and apply these in real-world settings. Students will gain expertise in data handling, analysis, interpretation, and decision-making support, crucial for today's data-driven world.

Who Can Apply?

- Should be a working professional with at least two (2) years of experience.
- Should have B.Tech/ BE/ M.Tech/ MSc (4 Semester Program)/ MCA (4 Semester Program)/ MS Degree (min. 4 Semester Program).
- In the qualifying degree at least 55 percent marks or equivalent 5.5 CGPA/CPI must be there. In case of the candidate belonging to SC, ST, or Persons with Disability (PwD) category, this is relaxed to 50% or equivalent 5.0 CGPA/CPI.

For MCA/MSC passed graduates, the percentage score of MCA/MSC would be considered. For BE/BTech Engineering graduates without PG specialization, the percentage score of the undergraduate degree would be considered. For a post graduation in the Engineering field of study, PG score qualification can be considered.

- Selection process will be scheduled post counseling & application process, depending on the number of eligible applications as per seat availability for the program. This entire process will be online.

Who Is This Program For?

- Professionals who are already working in technology-related fields, including IT professionals, software engineers, and data science experts, this program provides an opportunity to deepen their expertise.
- Entrepreneurs, innovators, tech enthusiasts & engineers eager to master the field of Data Science and Data Analytics.
- Individuals passionate about this field and wants to stay ahead in the digital age.
- Engineers and software developers seeking a deep understanding of Data Science and Analytics will find this program invaluable for honing their skills.

PROGRAM OBJECTIVES

To provide an understanding of fundamental statistical concepts and their application in data analysis.

To develop skills in handling and analyzing large datasets using Big Data tools and platforms.

To learn about various Big Data processing techniques and their applications in real-world scenarios.

To explore various data mining algorithms and their applications in solving real-world problems.

Equip students with an in-depth understanding of advanced statistical modeling techniques and their applications.

Develop proficiency in interpreting complex data sets using modern statistical methods.

Enhance skills in selecting and applying appropriate statistical models for various types of data and research questions.

Foster critical thinking and analytical skills for evaluating model performance and validity.



PROGRAM HIGHLIGHTS

- An esteemed certification, campus immersion & alumni status from IIT Bhilai
- Learn through Virtual Instructor-Led Training (VILT)
- Explore top-notch learning with industry experts

PROGRAM STRUCTURE

Semester	Course Code	Course Name	Category
I	DSD501	Foundations of Data Science	Program Core (PC)
I	DSD502	Statistical Methods for Data Analysis	Program Core (PC)
I	DSD503	Big Data Technologies	Program Core (PC)
I	DSD504	Data Warehousing and Data Mining	Program Core (PC)
II	DSDXXX	Elective in Advanced Analytics	Program Elective (PE)
II	DSDXXX	Elective in Machine Learning	Program Elective (PE)
II	DSDOEX	Open Elective	Open Elective (OE)
III	DSDXXX	Elective in Big Data	Program Elective (PE)
III	DSD799	Thesis/Project in Data Science	Thesis
III	DSDXXX	Elective in Data Visualization	Program Elective (PE)
IV	DSD799	Thesis/Project in Data Analytics	Thesis

Category	Course Code	Elective Courses	Category
Advanced Analytics Electives	DSD600	Predictive Analytics	Program Elective (PE)
	DSD601	Text Mining and Natural Language Processing	Program Elective (PE)
	DSD602	Time Series Analysis and Forecasting	Program Elective (PE)
	DSD603	Advanced Statistical Modeling	Program Elective (PE)
	DSD604	Data Analytics in the Cloud	Program Elective (PE)
Machine Learning Electives	DSD605	Deep Learning and Neural Networks	Program Elective (PE)
	DSD606	Reinforcement Learning	Program Elective (PE)
	DSD607	Supervised and Unsupervised Learning Techniques	Program Elective (PE)
	DSD608	Machine Learning at Scale	Program Elective (PE)
Open Electives	DSD609	Business Intelligence and Analytics	Open Elective (OE)
	DSD610	Data Governance and Compliance	Open Elective (OE)
	DSD611	Advanced Topics in Data Science	Open Elective (OE)
	DSD612	Data-Driven Decision Making	Open Elective (OE)



CORE LEARNING OUTCOMES

- Ability to apply data science techniques to extract meaningful information from data.
- Development of a critical approach to evaluating data sources, data quality, and analytical methods.
- Ability to apply statistical concepts and techniques for data analysis.
- Capability to select and apply the correct statistical methods for different types of data.
- Ability to identify and utilize appropriate Big Data tools for different types of data and analysis tasks.
- Awareness of ethical, security, and privacy concerns in Big Data and the ability to address them in professional practices.
- Proficiency in applying predictive analytics techniques to solve real-world problems. Enhanced skills in using software tools for data analysis, model building, and validation.
- Ability to select and implement appropriate predictive models for various types of data and prediction tasks.
- Improved skills in presenting and communicating data findings to inform strategic decisions.
- Ability to apply analytical techniques to solve business problems.

PROGRAM ADMISSION JOURNEY



STEP 1:

Fill up an online application form, upload the required documents and submit application



STEP 2:

Make the application payment



STEP 3:

Shortlisting based on work, and education profile



STEP 4:

If shortlisted, you will receive an offer letter from IIT Bhilai



STEP 5:

Pay admission confirmation fee within 7 days of receiving the offer letter

Selection process will be scheduled post-counseling & application process, depending on the number of eligible applications as per seat availability for the program. This entire process will be online.

Note: The application fee once paid is not refundable. IIT Bhilai reserves the right to conduct the admissions process. By submitting the application, the students agree that any decision regarding Admissions from IIT Bhilai will be final and binding.

Fee Structure

Online eMasters in Data Science and Data Analytics

Head	Sem 1	Sem 2	Sem 3	Sem 4	Total
Application Fee (Non Refundable)	₹ 5000/-	₹ 0/-	₹ 0/-	₹ 0/-	₹ 5,000/-
Application Fee	₹ 80,000/-	₹ 80,000/-	₹ 80,000/-	₹ 80,000/-	₹ 3,20,000/-
Instalment 1	₹ 40000/-				
Instalment 2	₹ 40000/-				
Optional Virtual Labs	₹ 4,000/-	₹ 4,000/-	₹ 0/-	₹ 0/-	₹ 8,000/-
Optional Campus Immersion Fee	₹ 0/-	₹ 10,000/-	₹ 0/-	₹ 10,000/-	₹ 20,000/-
Optional Institute Alumni Fee	₹ 0/-	₹ 0/-	₹ 0/-	₹ 6,000/-	₹ 6,000/-

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भारतीय प्रौद्योगिकी संस्थान भिलाई
 शिक्षा परिषद की अनुमोदना पर एवं पाठ्यक्रम की निर्धारित
 अहंताओं एवं शोध को सफलतापूर्वक पूर्ण करने पर
XYZ शर्मा
 को
डेटा विज्ञान और डेटा विश्लेषण में
ई-मास्टर्स
 की उपाधि प्रदान करता है।
 संस्थान द्वारा मुद्रांकित यह उपाधि दिनांक अठारह जून दो हजार बाईस
 को प्रदान की गई।



INDIAN INSTITUTE OF TECHNOLOGY BHILAI
 upon the recommendation of the Senate hereby confers
XYZ Sharma
 With the degree of
eMasters in
Data Science & Data Analytics
 for successfully completing the prescribed program study
 and presenting the thesis.
 Given this day the Eighteenth of June, Two Thousand Twenty Two
 under the seal of the Institute.

कुलसचिव
Registrar

अध्यक्ष, शिक्षा परिषद
Chairman, Senate

अध्यक्ष, संचालक मंडल
Chairman, Board of Governors



Tools and Technologies

Programming Languages and Environments



Key data science language for tasks ranging from data manipulation to machine learning



Statistical analysis & visualization



Interactive coding environment that supports other code languages

Data Analysis and Visualization Tools



Data visualization and business intelligence



Creating static, interactive, & animated visualizations

Big Data Technologies



Handle large datasets & perform complex data processing



databricks

Integrated environment for big data processing

Database Management



Essential for querying & managing data - relational databases



Or similar NoSQL Databases for unstructured or semi-structured data

Machine Learning and Advanced Analytics



Implementing ML algorithms



TensorFlow
Deep learning application



Advanced statistical analysis

Cloud Computing Platforms



For cloud-based data storage, processing & analytics



Cloud service for ML & data analysis

Text Editors and IDEs



For code development & debugging



Get In Touch With Us

For registration and any other information please get in touch with us at admission.iitbhilai@digiversity.com

Contact us: 033-4058-6356