M.Tech. Data Science & Engineering for Working Professionals

The global Data Science Market is estimated to grow at a CAGR of 30% to reach USD 140 billion by 2024, according to a MarketsandMarkets report. Prepare for a career in Data Science with India's most comprehensive & world class M.Tech. Data Science & Engineering Programme without taking a career break. The programme covers fundamentals to advanced skill & knowledge areas, and is a four-semester programme that helps software & IT professionals build skillset required to advance their career as a Data Analyst, Data Engineer, Data Architect, and Data Scientist, etc. Software and IT professionals working as Software Engineer, Programmer, Software Test Engineer, Support Engineer, Data Analyst, Business Analyst, who wish to transition to roles such as Data Scientist or Data Engineer should consider applying to this programme.

Who Should Apply?

M.Tech. Data Science and Engineering is a BITS Pilani Work Integrated Learning Programme (WILP). BITS Pilani Work Integrated Learning Programmes are UGC approved. The programme is of four semesters, with online classes conducted mostly on weekends or after business hours. You can pursue the programme without any career break. Offers the most comprehensive Data Science Curriculum for working professionals. The programme has an unmatched range & depth, and covers fundamentals to advanced skill & knowledge areas associated with the domain of Data Science. Aimed at transitioning software & IT professionals into Data Science careers tracks closest to their interest/passion. Curriculum maps knowledge and skill areas required to perform popular Data Science job roles such as Data Analyst, Data Engineer, Data Architect, and Data Scientist, etc. The programme offers a set of core courses and elective courses, allowing students to specialize in Data Management for Machine Learning, Ethics for Data Science, Optimization Techniques for Analytics, Natural Language Processing, etc. The programme makes use of Tools and Technologies. These include Apache Spark, Apache Storm for Big Data Systems/ Real time Processing; Tableau for data visualisation; Tensorflow for Deep Learning; Various Packages within Python for data processing, machine learning, data visualization etc. The Dissertation (Project Work) in the final semester enables students to apply concepts and techniques learned during the programme. The programme uses a Continuous Evaluation System that assesses the learners over convenient and regular intervals. Such a system provides timely and frequent feedback and helps busy working professionals stay on course with the programme. The education delivery methodology is a blend of classroom and experiential learning. Experiential learning consists of lab exercises, assignments, case studies and work-integrated activities. Participants who successfully complete the programme will become members of an elite & global community of BITS Pilani Alumni Option to submit fee using easy-EMI with 0% interest and 0 down payment. What are the Highlights of the Programme?

What are the programme objectives?

The most lucrative jobs in the areas of Data Science, Data Engineering and Advanced Analytics go to professionals who have mastered a combinations of critical skills such as Mathematical modeling, Machine learning, Artificial Intelligence, Product development and Scripting languages. The programme aims to help participants build a solid foundation in these areas by developing skills in: Mathematical and Statistical modelling using concepts such as linear algebra and probability to model and solve physical problems. Data structures and algorithms and managing time and space-related complexities. Computer organisation, architecture and Operating systems and advanced techniques for data processing. Data Mining aspects including preprocessing, cleaning & classification, and Data engineering & processing through distributed computing and cloud

computing. Advanced computing and analytical skills in areas such as Machine Learning, Artificial Intelligence, Deep Learning and Natural Learning Processing.