



PERIYAR UNIVERSITY

(NAAC 'A' GRADE - STATE UNIVERSITY – NIRF RANK 83)

DEPARTMENT OF COMPUTER SCIENCE

(Supported by UGC - SAP)

Salem - 636011, Tamil Nadu, India

www.periyaruniversity.ac.in



M.Sc (DATA SCIENCE) PROGRAMME

(In Association with industry partner BOSTON IT SOLUTIONS, Bengalooru)

About the Department

ADMISSION OPEN

The department of Computer Science was established in the year 2002, with the objective of imparting high quality education in the domain of Computer Science & Applications. The department received Special Assistance Programme (SAP) DRS I & II from UGC in the year 2011 & 2018. With rapidly evolving technology and the continuous need for innovation, the department has always produced quality professionals, holding important positions in Information Technology industries in India and abroad. The academic activities of the department are focused on teaching and research programmes in computer science with a view to train post-graduates and researchers who can contribute significantly to the requirements of professional organizations in the field.

The department currently runs five academic programmes leading to the award of M.C.A., M.Sc.(CS), M.Sc.(Data Science), B.Voc.(AR/VR) and Ph.D. degrees. The mission of the department of Computer Science is to impart high quality post graduate education and carry out leading edge research in various research areas such as Image processing, Pattern Recognition, Mobile Computing, Machine Learning and Artificial Intelligence

About the M.Sc Data Science Programme

The Department of Computer Science introduce two year full time Post Graduate Programme M.Sc Data Science from the academic year 2020-21 in association with industry partner BOSTON IT SOLUTIONS, Bengalooru. Data Science is an interdisciplinary in nature and it involves Computer Science, Mathematics and Statistics.

The whole world is highly depending on automation and digitalization due to pandemic. Hence, the proposed programme is more suitable to train the students in collaboration with industry to face current challenges through the emerging technologies.

Data science is gaining prominence in academia and industry, witnessing applications in diverse research disciplines. Data scientist positions are new roles where industry is looking for trained resources. However, there is a perceivable large gap between the number of opportunities and the trained resources.

The programme aims to develop an analytical model which is one of the top 10 components of Industry 4.0. It is one of the digital transformation of all the process related industries and value creation. This also represents a new stage in the organization and control of the industrial value chain. The Government of India has also announced lot of schemes and digital India is one such schemes. The emerging technologies such as Block Chain, Internet of Things, Artificial Intelligence, Big Data Analytics and Cyber Security are also playing vital role in Data Science.

Curriculum Structure of the Programme

SEMESTER – I

Basic Statistics for Data Science
Mathematical methods for Data Science
Design and Analysis of Algorithms
Big data Technology (Hadoop)
Introduction to Economics

Laboratory

Intel Python LAB
Data Science LAB
Big Data LAB

SEMESTER – II

Principles & Techniques of Data Science
Advanced Probability & Time Series analysis
Machine Learning
Data Mining and Data Warehouse
Elective courses: (choose 1 from 2)
Multivariate Statistics
Decision Science

Laboratory

Advance Statistics LAB
Data Mining & Machine Learning
Elective LAB

SEMESTER – III

Principles of Management
Deep Learning for Unstructured Data
Elective Courses: (choose 3 from 4)
Introduction to Econometrics & Finance
Spark and Pyspark
Time series Analysis
Forecasting Bio Informatics

Laboratory

Deep Learning LAB
Elective LAB
Elective LAB

SEMESTER – IV

Internship based Project.

For Admission Contact :

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98654 13993



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Programme outcomes

- Develop the ability to solve business problems using deep learning and machine learning.
- Understand data – data gathering, data exploration, data manipulation and data visualization.
- Understand data engineering – demystifying semi-structured/unstructured data, big data framework, cloud architecture.
- Perform data analysis using advanced statistical techniques
- Understand functional aspects of Data Science
- Recognize analytics applications in various business verticals

Career opportunities

According to Analytical India magazine report job openings in Data science sector in 2019 : There has been an overall growth in the number of jobs in analytics and data science ecosystem with India contributing to 6% of open job openings worldwide. The total number of analytics and data science job positions available are 97,000. Out of these, 97% job openings in India are on a full-time basis while 3% are part-time or contractual. Companies which are currently hiring in the market are – Accenture, Amazon, KPMG, Honeywell, Wells Fargo, Ernst & Young, Hexaware Technologies, Dell International, eClerx Services & Deloitte.

DIVERSE BACKGROUNDS WELCOME

There are only a few basic technical prerequisites (knowledge of statistics and Python) for the program. Students are required to have a Bachelor's degree in a science or math discipline.

Key Highlights of the Programme

- Industry Certification with Intel / NVIDIA
- A regular Master course with Industry collaboration
- Curriculum provided by Industry
- Learn Latest Technology from an Industry practitioner
- 60% of the Courses will be delivered by Industry Expert
- Learn key Datascience skill such as Big data, python, Machine Learning & Deep Learning
- Internship opportunity with Boston and its associated companies
- Build application using Intel AI & HPC software tools
- Build & deploy data science on world class Intel AI lab

ELIGIBILITY FOR M.Sc DATA SCIENCE

A Pass in recognized Bachelors Degree in Electronics and Electrical Engineering/Electronics and communication Engineering / Computer Science and Engineering/Information Technology/Electronics and Instrumentation Engineering/Computer Science/Computer Technology / Software Engineering/BCA/Mathematics/Statistics/Physics/Data Science/Data Analytics under 10+2+3/4 system of this University or equivalent degree.

PROGRAMMES OFFERED BY THE DEPARTMENT OF COMPUTER SCIENCE

★ M.C.A - 2 Years ★ M.Sc (Computer Science) ★ M.Sc (Data Science) ★ B.Voc (AR & VR) ★ Ph.D (CS)

FURTHER DETAILS

Head of the Department
Department of Computer Science
Periyar University, Salem - 636011

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Admission Procedure

Admission will be done on the basis of entrance test conducted by Periyar University. Mode of submission of application and fee payment : Online
Website : www.periyaruniversity.ac.in
Last date for submission of online application : **17-08-2020**