

**Faculty Development Programme on
“Data Science and Optimization”
(DSO-2018)
28th May to 11th June, 2018**

REGISTRATION FORM

Name :

Gender :

Designation :

Institution :

Contact Number :

E-mail ID :

Communication
Address :



DD Number :

Date :

Bank Drawn :

Declaration

The above information is true to the best of my knowledge. I agree to abide by the rules and regulations governing the seminar. If selected, I shall attend the seminar for the entire duration. I also undertake the responsibility to inform the Convener in case I am unable to attend the seminar.

Place : Signature of the Applicant

Date :

REGISTRATION FEE

Registration fee per participant : Rs.1500/-

Research Scholars, Faculties and Industry Persons can participate in this programme. Participants are requested to make their own arrangements for their accommodation. The registration fee will cover FDP Kit and Snacks.

IMPORTANT DATES

Last date for Registration: 21-05-2018

Notification of Selection : 23-05-2018

MODE OF PAYMENT

Payment may be made through either NEFT or DD in favour of “Thangavel K Coordinator UGC-SAP”, Payable at Salem.

The registration amount may also be deposited in the following account:

Account Number: **8450101002634**

IFSC Code : CNRB0008450

Branch : Canara Bank

Periyar University, Salem

CONTACT ADDRESS

Dr. K. Thangavel

Coordinator, DSO – 2018

Professor and Head

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**Faculty Development Programme on
“Data Science and Optimization”
(DSO-2018)**



28th May to 11th June, 2018



Organized by

**DEPARTMENT OF COMPUTER SCIENCE
(Supported by UGC-SAP)**

PERIYAR UNIVERSITY

(Re- Accredited by NAAC with A Grade)

Salem – 636 011

Tamilnadu

India

ABOUT THE UNIVERSITY

The Periyar University was established by the Government of Tamilnadu in the year 1997. The University got the 12(B) and 2f status from the University Grants Commission and has been reaccredited by NAAC with A grade in 2015. The University is named after a great social reformer popularly called Thanthai Periyar E.V.Ramasamy. He fought for the cause of protecting and promoting the interest of the oppressed and the downtrodden in India especially in Tamilnadu. One of his missions was to provide equal opportunity for all including the oppressed and the downtrodden in education and employment. Periyar University covers four backward districts namely Salem, Namakkal, Krishnagiri and Dharmapuri. The University at present has 27 Departments, six Constituent Colleges and one PG extension centre offering various UG, PG, M. Phil, and Ph. D. programmes.

ABOUT THE DEPARTMENT

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 and Applications. The Department received Rs. 54.50 Lakhs for Special Assistance Programme (SAP) from UGC in the year 2011. 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 mission of the Department is to impart the high quality post graduate education and carry out leading edge research in various research areas such as Image processing, Pattern Recognition, Data Mining, Mobile Computing and Bioinformatics. The Department currently offers four academic programmes leading to the award of M.C.A., M.Sc. (CS), M. Phil. and Ph.D. degrees.

ABOUT THE FDP

Data science is a "concept to unify statistics, data analysis, machine learning and their related methods" in order to "understand and analyze actual phenomena" with data. It employs techniques and theories drawn from many fields within the broad areas of mathematics, statistics, information science, and computer science, in particular from the sub-domains of machine learning, classification, cluster analysis, uncertainty quantification, computational science, data mining, databases, and visualization. One can become an expert in data analytics using Matlab, R and Python programming in this Data Science and Optimization programme. Data exploration, data visualization, data analytics and Implementing Optimization techniques with Matlab, R and Python will be explored. Further one can implement various real-life, industry-based projects in the domains of healthcare, retail, insurance, finance, airlines, music industry, and unemployment.

TOPIC TO BE COVERED

Module 1 : Matlab

Course Plan

- Fundamentals of Matlab
- Data Processing using Matlab
- Genetic Algorithm(GA) and PSO : Basics
- Implementing GA and PSO in Matlab
- Numerical functions for data analysis
- Graphical functions for data analysis
- Practical Assignments
- Group Discussions

Module 2 : R Programming

Course Plan

- Fundamentals of R
- Data Processing using R
- Data Exploration Techniques in R –Basics
- Data Exploration Techniques in R –Advance

- Data Visualization Techniques in R – Introduction
- Optimization Packages in R
- Module Development

Module 3 : Python Programming Course Plan

- Fundamentals of Python
- Data Processing using Python
- Data Analysis in Python – Basics
- Classification and Regression in Python – (SVM, PCA ,Logistic Regression, Decision Tree, Random Forest)
- Python Packages For Data Mining
- Distributed Evolutionary Algorithms in Python
- Project Development

ORGANIZING COMMITTEE

Chief Patron : Prof. Dr. P. Kolandaivel
Vice Chancellor

Patron : Dr. M. Manivannan
Registrar

Coordinator : Dr. K. Thangavel
Professor and Head

Members : Dr. C. Chandrasekar
Professor
Mr. S. Sathish
Assistant Professor
Dr. H. Hannah Inbarani
Assistant Professor
Dr. I. Laurence Aroquiaraj
Assistant Professor
Dr. R. Rathipriya
Assistant Professor