Ramakrishna Mission Vivekananda Educational And Research Institute

Department of Computer Science
School of Mathematical Science
RKMVERI, Belur, Howrah
Organising

AICTE Sponsored
5 Days
FACULTY DEVELOPMENT PROGRAMME
in the thrust area
ARTIFICIAL INTELLIGENCE

Date: *01 February - 05 February,2021*
Registration Fees: *Nil*
Last Date of Registration: *15 January,2021*
Venue: *RKMVERI, Belur, Howrah*

Faculty Development Programme on Machine Learning and Big Data Analytics

Department of Computer Science, Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI), an A++ institution as declared by NAAC, aims at the professionals from the industry, academia, scientific and research communities to give a thorough understanding of Machine Learning and Deep Learning algorithms and their applications in real life and Big Data analytics. RKMVERI is now pleased to announce its *first,* AICTE sponsored Faculty Development Programme, dated between 1st Feb, 2021 and 5th Feb, 2021.

For Whom

The FDP is designed for teachers and researchers working in colleges, universities and professional institutes which teach computer science and allied subjects. It is also suited for scientist and tech-enthusiasts, seeking to learn and adopt Big Data tools, Machine Learning and Deep Learning techniques, and gain familiarity with essential aspects of carrying out research studies.

Topics To Be Covered

Data Curation and Visualization, Optimization: Scopes & Techniques, Supervised Machine Learning, Unsupervised Machine Learning, Reinforcement Learning, Deep Learning and Applications, Big Data Analytics and Case Studies by Industry personnel.

Application Procedure

Application form and brochure are available online at here. Applicants need to fill up the application form online and submit the completed form before/on the application deadline, 15th January, 2021.

Contact Details

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Introductory Videos

The objective of this FDP is presented in 4 Introductory Videos as given below.

1. Python + Big Data Technologies
2. Regression Technique
3. Machine Learning
4. Deep Learning

There are five invited talks, one on each day. Please see the linked brochure for full details.

Machine Learning and Big Data-FDP BROCHURE

About The Institute

Established in 2005, RKMVERI, formerly known as Ramakrishna Mission Vivekananda University, is an institution deemed-to-be university as declared by the Ministry of Human Resource Development, Govt. of India, under Section 3 of University Grants Commission (UGC) Act, 1956. The multi-campus university houses many departments including Computer Science and conducts programmes at various levels ranging from undergraduate/diploma to doctoral.

About The Department

The Department of Computer Science, RKMVERI, was formed in 2009. The department has a prosperous research environment with active research groups in the areas of Algorithms and Theory, Artificial Intelligence, Machine Learning, Computer Vision, Data and Web Mining, Software Engineering, Reliability and Big Data Analytics, etc.. The department launched India's first M.Sc. degree programme in Big Data Analytics in the year of 2016. The programme leverages the world-leading expertise in research at RKMVERI with our strategic partnership with TCS to offer the students a foundational M.Sc. in the field of Data Analytics. Graduates from the department are heavily recruited by both academia and industry all over the India.

Programme Details

Day	Session	Time	Topic
Day 1		09:30 – 10:00	Inauguration by Prof. Bimal Roy (ISI, Kolkata)
	Session 1	10:00 – 11:00	Big Data Analytics, AI, ML, DL Landscape by Dr. Tinku Acharya (Videonetics)
		11:00 – 12:00	Data pre-processing using R
		12:00 – 13.:00	Data pre-processing using R
	Lunch		
	Session 2	14:00 – 15:00	Data pre-processing using Python
		15:00 – 16.:00	Data pre-processing using Python
		16:00 – 17:00	Visualization using Tableau
Day 2	Session 1	10:00 – 11:00	Machine Learning (ML): Concepts; Demystifying ML
		11:00 – 12:00	Machine Learning: Simple Linear Regression
		12:00 – 13.:00	Machine Learning: Multiple Linear Regression
	Lunch		
	Session 2	14:00 – 15:00	Machine Learning: Logistic Regression; Model Fit
		15:00 – 16.:00	Machine Learning: Logistic Regression; Prediction
		16:00 – 17:00	A case study on Banking Analytics by Dr. Prithwis Dey (TCS)
Day 3	Session 1	10:00 – 11:00	Decision Tree
		11:00 – 12:00	Ensemble Learning: Bagging, Boosting
		12:00 – 13.:00	Ensemble Learning: Random forest
	Lunch		
	Session 2	14:00 – 15:00	Support Vector Machine
		15:00 – 16.:00	Gaussian Process
		16:00 – 17:00	Application of ML in Bioinformatics by Dr. Pralay Mitra (IIT, KGP)

Programme Details (Contd.)

Day	Session	Time	Topic
Day 4	Session 1	10:00 – 11:00	Dimension Reduction
		11:00 – 12:00	Clustering
		12:00 – 13.:00	Introduction to Deep Learning: Multi layer perceptron, classification, back propagation, activation functions
	Lunch		
	Session 2	14:00 – 15:00	Introduction to Deep Learning: CNN
		15:00 – 16.:00	Deep Learning: in Computer Vision
		16:00 – 17:00	A case study on Computer Vision by Dr. Zhaozeng Yin (Stonybrook University)
Day 5	Session 1	10:00 – 11:00	Introduction to Deep Learning: RNN
		11:00 – 12:00	Introduction to Deep Learning: GAN
		12:00 – 13.:00	Overview of Big Data Technologies
	Lunch		
	Session 2	14:00 – 15:00	Data Processing Using Big Data Technologies: Map Reduce with Hadoop
		15:00 – 16.:00	Data Processing Using Big Data: PySpark
		16:00 – 17:00	A case study Automatic Document Summarization by Dr. Sriparna Saha (IIT, Patna)
		17:00 – 17:30	Valediction