Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

CERTIFICATE COURSE ON MACHINE LEARNING FOR ENGINEERING AND SCIENCE APPLICATIONS

Date of Introduction of the Course: 28.03.2019

5. Neural Networks

COURSE OBJECTIVES

This course helps to understand Functional programming is an elegant, concise and powerful programming paradigm. This style encourages breaking up programming tasks into logical units that can be easily translated into provably correct code. Haskell brings together the best features of functional programming and is increasingly being used in the industry, both for building rapid prototypes and for actual deployment.

Specifically, the course has the following objectives:

Students will learn

1. Understand why and how machine learning methods may improve engineering problem-solving
2. Quantify risk and clarify salient features from data in complex systems.
3. Learn how researchers make better predictions with missing or sparse data.
4. Transfer machine learning approaches developed in one industry to another industry.
5. Assess conditions when a machine learning approach may not be helpful or worth the extra effort
6. Should be of interest to companies trying to employ engineers familiar with Machine Learning

DINATOR

HEAD OF THE DEPARTMENT

HEAD OF DEPARTMENT
Department of Computer Sci... & Engg

COURSE COO

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed-to-be University under section 3 of UGC Act 1956)

CERTIFICATE COURSE ON MACHINE LEARNING FOR ENGINEERING AND SCIENCE APPLICATIONS

Date of Introduction of the Course: 28.03.2019

...gs are 9:30 AM to 12:30 PM (FN) and 1:30 PM to 4:30 PM(AN)
Saturday (FN&AN).

Time Table & Lesson plan

CLASS	DATE	TOPIC
1,	28-03-2019(FN) Thursday	**1. Mathematical Basics 1** Introduction to Machine Learning, Linear Algebra
2	29-03-2019 (FN) Friday	**2. Mathematical Basics 2** Describes about Probability and its basic
	30-03-2019 (FN) 30-03-2019 (AN) Saturday	**3. Computational Basics** Explains Numerical computation and optimization, Introduction to Machine Learning packages
	01-04-2019(FN) Monday	**4. Linear and Logistic Regression** Describes about Bias/Variance Tradeo, Regularization, Variants of Gradient Descent, MLE, MAP, Applications
6	02-04-2019 (FN) Tuesday	**5. Neural Networks** Describes about Multilayer Perceptron, Backpropagation, Applications
7,8	03-04-2019 (FN) 03-04-2019 (AN) Wednesday	**6. Convolutional Neural Networks 1** Explains CNN Operations, CNN architectures
9	04-04-2019 (FN) Thursday	**7. Convolutional Neural Networks 2** Explains Training, Transfer Learning, Applications
10,11	05-04-2019 (FN) 05-04-2019 (AN) Friday	**8. Recurrent Neural Networks** Explains RNN, LSTM, GRU, Applications
12	06-04-2019 (FN)	**9. Classical Techniques 1**

Bharath Institute of Science and Technology
Department of Computer Science and Engineering

School of Computing

E APPLICATIONS

MACHINE LEARNING FOR ENGINEERING AND SCIENC

List

Registered Students Name

S.No	RegNo	Student Name
1	U18CS001	KICHANAGARI YASHWANTH REDD
2	U18CS002	MUPPARAJU CHIRANJEEVI
3	U18CS003	Katam Mahendra Reddy
4	U18CS004	KOTA VENKATA VISHNU VARDHAN REDDY
5	U18CS005	DARAM SRINIVASAREDDY
6	U18CS006	PEDDIGIRI JALANDHER
7	U18CS007	BURRA PRANAY KUMAR
8	U18CS008	ISWARYA.V
9	U18CS010	PRANAY KUMAR REDDY SAMMIDI
10	U18CS011	NARAYANAM VAMS
11	U18CS012	VIKAS RAJ R
12	U18CS013	JOTHIKA K
13	U18CS014	CALVIN JOSHVUA R
14	U18CS015	DUGGINENI MOUNIK
15	U18CS016	KAKI SIDDHU SRINI
16	U18CS017	NEETU
17	U18CS018	UDAGANDLA HIMAJA
18	U18CS019	POTHIREDDY YOGESWARA REDDY
19	U18CS021	VIKASH KUMAR SINGH
20	U18CS022	UTHAYA A
21	U18CS023	TELLAKULA SAI RAM
22	U18CS024	PEDDI GNANA SURYA
23	U18CS027	SURAPAREDDY MANASA
24	U18CS028	SARAN P T
25	U18CS029	Shiva Dhuru Vel S
26	U18CS030	DEVI CHANDANA D
27	U18CS032	VISHWANATH J
28	U18CS033	KANDULA CHAITANYA SAI
29	U18CS034	SHARAVATI EGIRIDHAR
30	U18CS035	DOMMETI

SARATH KRISHNA

Bharath UNIVERSITY

பாரத் பல்கலைக்கழகம்

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared as Deemed-to-be-University, u/s 3 of the UGC Act, 1956)

34 YEARS OF EXCELLENCE

CERTIFICATE OF PARTICIPATION

COURSE FEEDBACK FORM

Academic Year	2018-2019
Term	
Course Number	
Course Title	Machine Learning for Engineering and Science Applications
Number of Credits	
Type of Course	Regular / Elective / Add on

I. Information on the Respondent: (Tick (√) Appropriately)

1. **Percentage of classes attended**

0-20		20-40		40-60		60-80		80-100	

2. **Number of hours per week spent on the course (Other than lecture hours)**

0-2		2-4		4-6		6-8		8-10	

3. **Preparation for the course by the student:**

(i)	Have done part of this course earlier
(ii)	Has adequate prior exposure to the prerequisites
(iii)	Had to pickup relevant additional topics through concurrent study
(iv)	Have no exposure to the background material

4. **The expectations for taking the course by the stude**

(a)	Enhance by skill base in the area of specializa
(b)	Get exposed to a relevant subject
(c)	Curiosity
(d)	Better Employment Opportunity
(e)	Complete Course requirements
(f)	To Improve CGPA

About the Instructor: Information on the Respondent: (Tick (√) Appropriately)

	A	B	C	D	E
1	Pace of the Teaching/lectur				

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Term						
Course Number						
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Number of Credits						
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(iii)	Had to pickup relevant additional topics through concurrent study
(iv)	Have no exposure to the background material

4. **The expectations for taking the course by the student are:**

(a)	Enhance by skill base in the area of specializations
(b)	Get exposed to a relevant subject
(c)	Curiosity
(d)	Better Employment Opportunity
(e)	Complet
(f)	To Impro

Course requirements

ve CGPA

formation on the Respondent: (Tick (√) Appropriately)

About the Instructor: I

	A	B	C	D	E
ng/lecture	✓				
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4.	Level of prepara
5.	Level of interact
6.	Accessibility ou
7.	Others (please sp

B: Very Good | C: Good | D: Satisfact | A: Excellent

CERTIFICATE COURSE ON MACHINE LEARNING FOR ENGINEERING AND SCIENCE APPLICATIONS