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

NAAC

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai , T.N - 600 073.

Requisition Letter

From

Date: 28.11.2018

Dr. K.P.Kaliyamurthie,
Professor & Head,
Department of CSE,
Bharath Institute of Higher Education and Research,
Chennai

To
The Dean Engineering,
Bharath Institute of Higher Education and Research,
Chennai

Respected sir

Subject: Request of Permission to conduct a value added course on **"Recent Trends and Technology"** -Reg

With reference to above subject, I would like to bring to your kind notice that, our department interested to organize value added course on **"Recent Trends and Technology"** in our campus premises on **05/12/2018**.

50 students would be participating in this course. We request you kindly to give permission to organize this event.

Venue: **CSE Smart Room**

Timing : **9 am to 4.30 pm**

Submitted to Principal for approval to organize this value added course.

HOD/CSE

DEAN ENGINEERING

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CIRCULAR

03.12.2018

The School of computing, Bharath Institute of Higher Education and Research is planned to conduct a certification value added course on **Recent Trends and Technology** for the benefit of II, III and IV year students. This course is scheduled from 05.12.2018 for 30 hours which includes theory and practical. The timings are 9:30 AM to 12:30 PM from Friday (FN) and Saturday (FN&AN).

All Registered Students must attend all the classes without fail. The following faculty members are assigned to handle the course. S.NO	Name of the Faculty	Designation
1	Dr.G.Michael	Professor
2	Mrs.R.Velvizhi	Assistant Professor

Head of Department

To

Copy to CSE

Copy to IT

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TO THE STARS BY HARD WORK
BIHER UNIVERSITY
INDIA

CERTIFICATE COURSE ON RECENT TRENDS AND TECHNOLOGY

Date of Introduction of the Course: 05.12.2018

COURSE SYLLABUS

1. Artificial Intelligence

Introduction to AI-Problem formulation, Search Algorithms, Knowledge Representation, Knowledge Inference, Game Playing, Planning.

2. Machine Learning

Machine Learning Algorithms, Supervised Learning, Unsupervised Learning, Reinforcement Learning, Generative Adversarial Networks.

3. Deep Learning

Introduction to Neural Nets, Deep Networks, Dimensionality Reduction, Optimization and Generalization, Applications.

4. Neural Networks

Basics of Neurons, Perception Algorithm, Feed Forward and Back Propagation Networks, Installation of TensorFlow and Keras.

5. Robotic Process Automation

Robotic Spectrum, 6 Step RPA, Difference between Regular Automation and RPA, C-level decision-making around RPA, Applications of RPA.

6. Data Science

Linear Algebra, Statistics, Data Mining, Data Visualization, Applications of Data Science.

7. Internet of Things

Introduction to IOT, Sensor networks, Embedded systems, Real-time systems, Cloud, Resource and application models.

8. Blockchain

Bitcoins, Blockchain Architecture, Security measures, Blockchain smart contracts, Blockchain Standards, Use cases.

9. Augmented Reality and Virtual Reality

Three I's of VR, Classic components of VR system, VR Development Process, Content creation considerations of VR, VR on Web, Vr on Mobile, Applications.

10. Cognitive Cloud Computing

Introduction, Brain Inspired Architecture, Neuroscience, Nano Technology, Super Computing, Cognitive Computing Power Efficient Architecture.

11. Edge Computing

Introduction, Three-level Architecture, Content Delivery Network, Fog Nodes- Cloudlets, Micro Datacentres, Edge x, AWS Lambda.

12. Big Data Analytics

Big Data Characteristics, Big Data Storage, HDFS, Map Reduce, Clustering and Classification, NoSQL Data Management.

13. Data Visualization

Context of Data Visualization, Visualizing Data Methods, Visualizing Data Process, Interactive Data Visualization, Security Data Visualiztion.

14. DevOps

Infrastructure Automation, Configuration Management, Deployment Automation, Performance Management, Log Management, Monitoring.

15. Intelligent Apps

Introduction to Intelligent Apps, Four Stage Framework, Key Functionalities, Natural Language Processing, Real-Time Applications.

COURSE OBJECTIVES

In this course we plan to give students an overview of the recent upgraded Trends and Technology in the field of Computer Science and Information Technology, and an in-depth study into its enabling technologies and main building blocks. Students will gain hands-on experience solving relevant problems through projects that will utilize existing public cloud tools. It is our objective that students will develop the skills needed to become a practitioner or carry out research projects in this domain.

Specifically, the course has the following objectives:

Students will learn

1) Design a project plan that incorporates a new and emerging technology and illustrates its impact on organizations and industries.

2) Compare and contrast current and emerging technologies and their implications for social ethics and the global workplace.

3) Appreciate the unique characteristics of and differences between disruptive technologies and their impacts.

4) Recognize the importance of ethical practices with new technologies.

COURSE COORDINATOR

HEAD OF THE DEPARTMENT

CERTIFICATE COURSE ON RECENT TRENDS AND TECHNOLOGY

Date of Introduction of the Course: 05.12.2018

The timings are 9:30 AM to 12:30 PM from Friday (FN) and Saturday (FN&AN).

Time Table & Lesson plan

CLASS	DATE	TOPIC
1,2	05-12-2018(FN)	**1.Artificial Intelligence** Introduction to AI-Problem formulation, Search Algorithms, Knowledge Representation, Knowledge Inference, Game Playing, Planning.
3,4	07-12-2018(FN)	**2. Machine Learning** Machine Learning Algorithms, Supervised Learning, Unsupervised Learning, Reinforcement Learning, Generative Adversarial Networks.
5,6	08-12-2018 (FN) 08-12-2018(AN)	**3. Deep Learning** Introduction to Neural Nets, Deep Networks, Dimensionality Reduction, Optimization and Generalization, Applications.
7,8	14-12-2018(FN)	**4. Neural Networks** Basics of Neurons, Perception Algorithm, Feed Forward and Back Propagation Networks, Installation of TensorFlow and Keras.
9,10	15-12-2018(FN) 15-12-2018(AN)	**5. Robotic Process Automation** Robotic Spectrum, 6 Step RPA, Difference between Regular Automation and RPA, C-level decision-making around RPA, Applications of RPA.
11,12	21-12-2018(FN)	**6. Data Science** Linear Algebra, Statistics, Data Mining, Data Visualization, Applications of Data Science.
13,14	22-12-2018(FN)	**7. Internet of Things** Introduction to IOT, Sensor networks, Embedded systems, Real-time systems, Cloud, Resource and application models.
15,16	22-12-2018(AN)	**8. Blockchain** Bitcoins, Blockchain Architecture, Security measures, Blockchain smart contracts, Blockchain Standards, Use cases

17,18	28-12-2018(FN)	**9. Augmented Reality and Virtual Reality** Three I's of VR, Classic components of VR system, VR Development Process, Content creation considerations of VR, VR on Web, Vr on Mobile, Applications.
19,20	29-12-2018(FN) 29-12-2018(AN)	**10. Cognitive Cloud Computing** Introduction, Brain Inspired Architecture, Neuroscience, Nano Technology, Super Computing, Cognitive Computing Power Efficient Architecture.
21,22	04-01-2019(FN)	**11. Edge Computing** Introduction, Three-level Architecture, Content Delivery Network, Fog Nodes- Cloudlets, Micro Datacentres, Edge x, AWS Lambda.
23,24	05-01-2019(FN)	**12. Big Data Analytics** Big Data Characteristics, Big Data Storage, HDFS, Map Reduce, Clustering and Classification, NoSQL Data Management.
25,26	05-01-2019(AN)	**13. Data Visualization** Context of Data Visualization, Visualizing Data Methods, Visualizing Data Process, Interactive Data Visualization, Security Data Visualiztion.
27,28	11-01-2019(FN)	**14. DevOps** Infrastructure Automation, Configuration Management, Deployment Automation, Performance Management, Log Management, Monitoring.
29,30	12-01-2019(FN) 12-01-2019(AN)	**15. Intelligent Apps** Introduction to Intelligent Apps, Four Stage Framework, Key Functionalities, Natural Language Processing, Real-Time Applications.

COURSE COORDINATOR

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CERTIFICATE COURSE ON RECENT TRENDS AND TECHNOLOGY
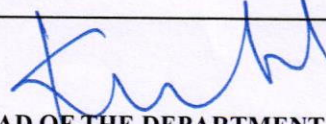### Date of Introduction of the Course: 05.12.2018
School of Computing
Registered Students Name List

S.NO	REG.NO	NAME OF THE STUDENT
1	U15CS001	Abhijeet kumar
2	U15CS002	Abhijit Kumar Gupta
3	U15CS003	ABHISHEK KUMAR SINGH
4	U15CS004	Allu Sai Siva Priyanka Naidu
5	U15CS005	AMBIKE KUMAR SINGH
6	U15CS006	ANBUMANI S
7	U15CS007	ANJAR ALI
8	U15CS031	Ch.l.n.Avinash
9	U15CS032	Chandra kant Choudhary
10	U15CS034	CHIDIPOTHU PRATHYUSHA
11	U15CS035	Ch. V s s sravya
12	U15CS036	Ch.Prasanna kumar
13	U15CS706	AHENUO MERE
14	U15CS709	NINGSANGPENLA
15	U15CS071	John Param Jyothi Jyothula
16	U15CS073	K Thulasiram
17	U15CS074	Kadali Vinaynarasimha
18	U15CS075	Kadumu Mounika
19	U15CS076	Kaipu Pranay Reddy
20	U15CS077	Kalyanam Jaswanth Naidu
21	U15CS078	Kamble Nikhil Kumar
22	U15CS079	Kancharlapalli Lokeshwar Rao
23	U15CS125	Molapanti Siva Kalpana
24	U15CS126	Mooraboina Naresh
25	U15CS704	Karam
26	U14CS008	AJAY.D
27	U14CS009	AKASH CHANDRA AMBASTHA
28	U14CS010	AKHIL REDDY.G
29	U14CS011	AKSHAY.R

30	U14CS090	MAL REDDY GANESH REDDY
31	U14CS091	MALLISETTI SAI SANDEEP
32	U14CS092	MANDELA SAIKIRAN
33	U14CS093	MANIMALA.G
34	U14CS144	RAKESH KUMAR
35	U14CS145	RAKHI PRASAD
36	U14CS146	RAM KUMAR PANDEY
37	U14CS147	RAMANATHAN.J
38	U14CS228	ELACATI JAGANNADHA HARSHITHA
39	U14CS230	MARAM REDDY RAJASEKHAR
40	U14CS234	DANDU MOHAN RAJENDRA VARMA
41	U14CS706	RAFTEN WANCHU
42	U14CS217	CHILLIMUNTA VENKATESH
43	U14CS218	MAKKAPTI SIDDHARDHA
44	U14CS223	ARUN
45	U14CS226	SARAVANAN.B
46	U14CS227	I.SUKAPATLA AVINASH
47	U14CS237	CHARAN KUMAR
48	U14CS701	BALAJI
49	U14CS707	ARNISHA DAS
50	U14CS708	SUSMITA MOG

COURSE COORDINATOR

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COURSE CO-ORDINATOR

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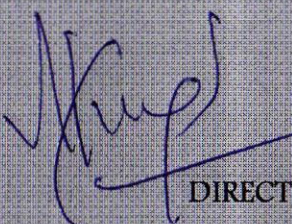
CERTIFICATE OF PARTICIPATION

This certificate is presented to

SHAIK YASMEEN

For actively participating in the value added course "Recent Trends and Technology" Conducted by School of Computing, BIHER from 05.12.2018 to 12.01.2019.

COURSE COORDINATORS

HEAD OF THE DEPARTMENT

DIRECTOR

COURSE FEEDBACK FORM

Academic Year			2018 - 2019			
Term			ODD.sem			
Course Number						
Course Title			Recent Trends & Technology.			
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:**

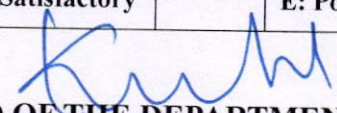| (i)	Have done part of this course earlier	yes
(ii)	Has adequate prior exposure to the prerequisites	yes
(iii)	Had to pickup relevant additional topics through concurrent study	yes
(iv)	Have no exposure to the background material	yes

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

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

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

		A	B	C	D	E
1.	Pace of the Teaching/lecture	✓				
2.	Comment of the Subject		✓			
3.	Clarity of expression	✓				
4.	Level of preparation			✓		
5.	Level of interaction	✓				
6.	Accessibility outside the class		✓			
7.	Others (please specify			✓		

A: Excellent		B: Very Good		C: Good		D: Satisfactory		E: Poor	

HEAD OF THE DEPARTMENT

COURSE FEEDBACK FORM

Academic Year			2018 – 2019.				
Term			ODD Sem.				
Course Number							
Course Title			Recent Trends & Technology.				
Number of Credits							
Type of Course	Regular		Elective			Add-on	✓

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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	Yes
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(iii)	Had to pickup relevant additional topics through concurrent study	Yes
(iv)	Have no exposure to the background material	Yes

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

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(b)	Get exposed to a relevant subject	Yes
(c)	Curiosity	Yes
(d)	Better Employment Opportunity	Yes
(e)	Complete Course requirements	Yes
(f)	To Improve CGPA	Yes

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

		A	B	C	D	E
1.	Pace of the Teaching/lecture	✓				
2.	Comment of the Subject		✓			
3.	Clarity of expression			✓		
4.	Level of preparation		✓			
5.	Level of interaction		✓			
6.	Accessibility outside the class			✓		
7.	Others (please specify	✓				

A: Excellent		B: Very Good		C: Good		D: Satisfactory		E: Poor	

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