SJB Institute of Technology

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)
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Department of MBA

Course Title: EMERGING EXPONENTIAL TECHNOLOGIES			Course Code: 20MBA301
Semester: III B	Academic Year:2020-21	Total hrs.:50	Hrs./Week: 04
Int. Exam Hrs.: 01.30	Internal Evaluation Max. Marks: 40		
Ext. Exam Hrs.: 03	Ext. Exam Max.Marks:60		
Lesson Plan Author / Desgn. : Dr. Roopa Temkar V./ Mrs. Roopa Karnam, Associate Professor / Assistant Professor,MBA			

Course Objectives:

1. To understand the emerging technologies applicable in field of Management.
2. To study data science as a tool for decision making in Management
3. To understand the concept of AI, IOT and AR.
4. To study other emerging technologies in Management

Course Outcomes:

CO1:Identify different emerging technologies

CO2:Select appropriate technology and tools for a given task

CO3:Identify necessary inputs for application of emerging technologies

CO4: Understand the latest developments in the area of technology to support business

Syllabus

Course Title : EMERGING EXPONENTIAL TECHNOLOGIES   Course code: 20MBA301

Module: I	Teaching Hours
Title: Introduction to Emerging Technologies Evolution of technologies; Introduction to Industrial revolution; Historical background of the Industrial Revolution; Introduction to Fourth industrial revolution (IR 4.0); Role of data for Emerging technologies; Enabling devices and networks for emerging technologies (programmable devices); Human to Machine Interaction; Future trends in emerging technologies.	09
Blooms Taxonomy:L1 – Remembering, L2 – Understanding, L3 – Applying	

Module: II		Teaching Hours
Title: Data Science Overview for Data Science; Definition of data and information; Data types and representation; Data Value Chain; Data Acquisition; Data Analysis; Data Curating; Data Storage; Data Usage; Basic concepts of Big Data.		07
Blooms Taxonomy: L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analyzing.		

Module: III		Teaching Hours
Title: Artificial Intelligence(AI) Concept of AI, meaning of AI, History of AI, Levels of AI, Types of AI, Applications of AI in Agriculture, Health, Business (Emerging market), Education, AI tools and platforms (eg: scratch/object tracking).		09
Blooms Taxonomy: L1 – Remembering, L2 – Understanding, L3 – Applying, L4 – Analyzing.		

Module: IV		Teaching Hours
Title: Internet of Things (IoT) Overview of IOT; meaning of IOT; History of IOT; Advantages of IOT; Challenges of IOT; IOT working process; Architecture of IOT; Devices and network; Applications of IOT at Smart home; Smart grid; Smart city; Wearable devices; Smart farming; IOT tools and platforms; Sample application with hands on activity.		09
Blooms Taxonomy: L2 – Understanding, L3 – Applying, L4 – Analyzing.		

Module: V		Teaching Hours
Title: Augmented Reality (AR) and Virtual Reality (VR) Introduction to AR, Virtual reality (VR), Augmented Reality (AR) vs mixed reality (MR), Architecture of AR systems. Application of AR systems (education, medical, assistance, entertainment) workshop oriented hands demo.		09
Blooms Taxonomy: L2 – Understanding, L3 – Applying, L4 – AnalysingL5 – Evaluating.		

Module: VI		Teaching Hours
Title: Ethics, Professionalism and Other Emerging Technologies Technology and ethics, Digital privacy, Accountability and trust, Treats and challenges. **Other Technologies:** Block chain technology, Cloud and quantum computing, Autonomic computing, Computer vision, Cyber security, Additive manufacturing (3D Printing)		07
Blooms Taxonomy:L2 – Understanding, L3 – Applying, L4 – Analyzing		

DAYS	Unit No. & Title	Date	SUB TOPICS	CO
1	Module I: **Introduction to**	11-11-2021	Evolution of technologies; Introduction to Industrial revolution	CO1

2	**Emerging Technologies**	12-11-2021	Historical background of the Industrial Revolution	CO1
3		15-11-2021	Introduction to Fourth industrial revolution (IR 4.0)	CO1
4		16-11-2021	Role of data for Emerging technologies	CO1
5		17-11-2021	Enabling devices and networks for emerging technologies (programmable devices)	CO1
6		18-11-2021	Human to Machine Interaction	CO1
7		19-11-2021	Human to Machine Interaction	CO1
8		20-11-2021	Future trends in emerging technologies	
9		23-11-2021	Future trends in emerging technologies	
10	Module II: **Data Science**	24-11-2021	Overview for Data Science	CO1,CO2
11		26-11-2021	Definition of data and information	CO2
12		29-11-2021	Data types and representation	CO2
13		30-11-2021	Data Value Chain, Data Acquisition	CO2
14		1-12-2021	Data Analysis; Data Curating	CO1,CO2
15		2-12-2021	Data Storage; Data Usage	CO1, CO2
16		3-12-2021	Basic concepts of Big Data	CO2
17	Module III: **Artificial Intelligence(AI)**	6-12-2021	Concept of AI, meaning of AI	CO3
18		7-12-2021	Concept of AI, meaning of AI	CO3
19		13-12-2021	History of AI	CO3
20		14-12-2021	Levels of AI, Types of AI	CO3
21		16-12-2021	Applications of AI in Agriculture	CO3
22		17-12-2021	Health, Business (Emerging market)	CO3
23		18-12-2021	Education	CO3
24		20-12-2021	AI tools and platforms (eg: scratch/object tracking)	CO3
25		21-12-2021	AI tools and platforms (eg: scratch/object tracking)	CO3
26	Module IV: **Internet of Things (IoT)**	23-12-2021	Overview of IOT; meaning of IOT	CO3
27		24-12-2021	History of IOT; Advantages of IOT	CO3
28		27-12-2021	Challenges of IOT; IOT working process	CO3
29		28-12-2021	Architecture of IOT; Devices and network	CO3
30		30-12-2021	Applications of IOT at Smart home	CO3
31		31-12-2021	Smart grid; Smart city; Wearable devices	CO3

32		1-1-2022	Smart farming; IOT tools and platforms	CO3
33		22-6-2021	Sample application with hands on activity	CO3
34		23-6-2021	Sample application with hands on activity	CO3
35	Module V: **Augmented Reality (AR) and Virtual Reality (VR)**	24-6-2021	Introduction to AR	CO4
36		25-6-2021	Virtual reality (VR),	CO4
37		28-6-2021	Augmented Reality (AR) vs mixed reality (MR)	CO4
38		29-6-2021	Augmented Reality (AR) vs mixed reality (MR)	CO4
39		30-6-2021	Architecture of AR systems	CO4
40		1-7-2021	Application of AR systems (education, medical, assistance, entertainment)	CO4
41		2-7-2021	Application of AR systems (education, medical, assistance, entertainment)	CO4
42		5-7-2021	workshop oriented hands demo.	CO5
43		6-7-2021	workshop oriented hands demo.	CO5
44	Module VI: **Ethics, Professionalism and Other Emerging Technologies**	7-7-2021	Technology and ethics, Digital privacy	CO4
45		8-7-2021	Accountability and trust, Treats and challenges	CO4
46		9-7-2021	**Other Technologies:** Block chain technology	CO4
47		10-7-2021	Cloud and quantum computing	CO4
48		12-7-2021	Autonomic computing	CO4
49		13-7-2021	Computer vision, Cyber security	CO4
50		14-7-2021	Additive manufacturing (3D Printing)	CO4

Module Wise Plan

Reference / Text Book Details

Sl.No.	Title of Book	Author	Publication	Edition
1	Human Resource Management: Theory and Practices	R. C. Sharma	Nipun Sharma Sage Publication India Pvt. Ltd.	2019
2	Human Resource Management: Concepts Amitabha Sengupta Sage Publication India Pvt. Ltd. 2019	Amitabha Sengupta	Sage Publication India Pvt. Ltd.	2019
3	Leadership: Theory and Practices Peter G. Northouse Sage Publication 2016	Peter G.	Northouse Sage Publication	2016
4	Human Resources Management	T.PRenukaMurthy	HPH.	2015

	T.PRenukaMurthy HPH. 201			
Reference Books				
1	The HR Scorecard: Linking Strategy People Strategy	Brian Becker, Dave Ulrich, and Mark A. Huselid	Harvard Business School Press 2001	2001
2	The HR Answer Book: An Indispensable Guide for Managers and Human Resources Professionals	Shawn Smith and Rebecca Mazin	AMACOM	2011
3	Performance Management and Appraisal Systems HR Tools for Global Competitiveness	T. V. Rao		First Edition, 2004
4	Human Resource Management	Appasaba L.V and Kadakol A M	College Book House	2016
5	Human Resource Management V.S.P Rao 2014	V.S.P Rao		2014

CO-PO Mapping

CO	PO						PO7
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2		2		2		
CO2		2		2			
CO3			2		2	2	
CO4				2		2	

Faculty In-Charge Rwha Temkurv

Head of the Department

Date: 2. 11. 2021