GANPAT UNIVERSITY									
FACULTY OF TECHNOLOGY									
Programme	Bachelor of Technology					Branch/Spec.	Computer Science & Engineering		
Semester	VII					Version	1.0.0.0		
Effective from Academic Year			2018-19			Effective for the batch Admitted in			June 2015
Subject code	2CSE70E23		Subject Name			Cognitive Computing			
Teaching scheme						Examination scheme (Marks)			
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	3	0	1	0	4	Theory	40	60	100
Hours	3	0	2	0	5	Practical	30	20	50

Pre-requisites:

English Proficiency
Exposure to the IBM Skills Academy Portal learning environment

Learning Outcome:

- Describe the field of AI and its subfields machine learning, NLP and computer vision
- Describe how Watson technology is being applied to solve real world problems
- Describe the evolution of Watson services from the original DeepQA architecture to the present
- List the Watson services available on the IBM Cloud
- Explain the capabilities of each Watson service
- Describe the purpose of training the various Watson services to adapt them to a closed-domain
- Use Watson API Explorer to interact with the Watson services REST API, to rest your calls to the API and to view live responses from the server
- Understand the relationship between AI and NLP
- Describe the main components that are involved when building a chatbot and explain their purpose
- Describe how to build a chatbot by using the IBM Watson Conversation service
- Define what Computer Vision is
- Know the history and advancement of Computer Vision
- Identify some of the tools and services of Computer Vision
- Understand Computer Vision components

Theory syllabus

Unit	Content	Hrs
1	UNIT I – ARTIFICIAL INTELLIGENCE OVERVIEW Introduction to Artificial Intelligence, Machine Learning, NLP, Computer Vision, Cogitive computing	**8**
2	UNIT II – ARTIFICIAL INTELLIGENCE FOUNDATIONS Introduction to IBM Watson, Evolution from Deep QA to Watson services on IBM Cloud, Build with Watson	**9**
3	UNIT III – ARTIFICIAL INTELLIGENCE ANALYST Natural Language Processing, Pipelne & concepts, NLP and IBM Watson	**9**
4	UNIT IV – Computer Vision Introduction to Computer Vision, Computer Vision fundamentals,IBM Watson visual recognition service	**8**

5	UNIT V – Chatbots Introduction to Chatbots, Chatbot fundamentals, IBM Watson conversation service	**8**
Self learning: CASE studies		
Practical content		
To be designed by IBM		
Text Books		
1		
2		
Reference Books		
1		
2		
3		