RGPV WING)	(DIPLO BHOPAL	AMC	OBE CUR THE COURS		DR FO	ORM	1	Sheet No. 1/5
Branch	Informati	on Te	chnology		Seme	ster		V
Course Code	50	2	Course Name	Artificial Int Learning	elligen	ce v	vith M	achine
Course 0 - 1	Outcome		ze AI tools teo 1 its behaviou				Teach Hrs	Mark s
Learning Outcome	1	Sum	marize AI con	cepts			6	10
Contents		ty ● A	rtificial Intellig /pes, application I building block I production sys	ns, challenges s & Infrastructu		ures	& limi	tations,
Method Assessme	of ent	Exterr	nal: End semeste	r theory examina	ition (Per	n pap	er test).	
Learning Outcome	2	Ехр	lain AI algorit	hms & technic	ques		5	10
Contents		fi ● Ir a	ninformed Sear rst search nformed Search Igorithms ocal Search: Hil	n Strategy(Heu				
Method Assessme		Exterr	nal: End semeste	r theory examina	ition (Per	n pap	er test).	
Learning Outcome	3	Iden	tify AI tools a	nd technologi	es		4	10
Contents		Ir ● Ir	lake use of p mplementation nstall & configu umpy, nltk, ma	re AI libraries	for pyth	•		
Method Assessme		Exterr	nal: Laboratory o	bservation and v	iva voce.			
Learning Outcome	4	Solve	e AI problems				4	10

Contents		basic AI prol em, Optimal Pa		-		-	-
Method of Assessment	•	al: Lab Observat	2,	5.7		gramm	
RGPV (DIPL WING) BHOPAL	OMA	OBE CUR THE COURS	RICULUM SE	FOR	FORM 3	N	iheet lo. 2/5
Branch Informat	ion Te	chnology		Ser	nester		v
Course Code 50	2	Course Name	Artificial Learning	Intellig	ence v	vith Ma	achine
Course Outcome - 2	Apply areas	y AI search s	strategy	in diff		Teach Hrs	Mark s
Learning Outcome 5		line Knowled ogic concept	ge Repres	sentatio	n for	8	10
Contents	• Pr	nowledge Repre opositional and emantic Networ	Predicate lo	ogic		Approa	ches
Method of Assessment	Intern	al: Mid semester	r theory exan	nination (I	Pen pape	er test).	
Learning Outcome 6		lain Natural ning Strategy	language	process	sing &	8	10
Contents	bo • Ga	P: Introductio ottom up senter aming Strategy uning	nce parsing		-	·	
Method of Assessment	Exterr	nal: End semeste	r theory exa	mination (Pen pap	er test).	
Learning Outcome 7		e use of AI Pro viour	ocessing &	Predicti	ng	4	10
Contents	for c	use of availabl reating convers mental analysis	sational ap	-			
Method of Assessment	Exterr	nal: Laboratory o	bservation a	nd viva vo	ce.		

RGPV WING)	(DIPL) BHOPAL	ОМА	OBE CUR THE COURS		DR FOR 3		Sheet No. 3/5
Branch	Informat	ion Te	chnology		Semeste	r	V
Course Code	50	2	Course Name	Artificial Inte Learning	elligence	with M	achine
Course - 3	Outcome		sify Artificial etic algorithm	l neural netw Is	vork and	Teach Hrs	Mar ks
Learning Outcome			lain concept work	of Artificia	l Neural	7	10
Contents	3	• Al	NN: Introduct	lligence, Biologi ion, Structure eural network, I	e of Ne	ural N	ons, etwork,
Method Assessm		Exteri	nal: End semeste	r theory examina	tion (Pen pa	iper test).	
Learning Outcome		Class	sify Genetic al	gorithm		8	10
Contents	5			Concept, Flowch & Mutation ope		ithm of (GA,
Method Assessm	of ent	Interr	nal: Mid semester	theory examinat	ion (Pen pa	per test).	
RGPV WING)	(DIPL) BHOPAL	ОМА	OBE CUR THE COURS		DR FOR 3		Sheet No. 4/5
Branch	Informat	ion Te	chnology		Semeste	r	V
Course Code	50	2	Course Name	Artificial Inte Learning	elligence	with M	achine
Course - 4	Outcome	Cons	struct Machine	Learning activ	vities	Teach Hrs	Mar ks
Learning Outcome		Expla	ain machine le	earning from e	xamples	10	10

Contents	• Su	upervised learr gression, logist	dels, ML need & ning: Regressio ic regression, Kl arning: K-means	n & classi NN		Linear
Method of Assessment	Exteri	nal: End semeste	r theory examina	tion (Pen pa	per test).	
Learning Outcome 11		ain reinforcen 1L processing	nent learning	& datase	t 6	10
Contents	• Da		arning : Introdu uction, steps c extraction			
Method of Assessment	Interr	nal: Mid semester	theory examinat	ion (Pen pap	er test).	
Learning Outcome 12		eriment witl elopment envir	-	n source	8	10
Contents	vario	us available s	L datasets (Trai ources (Kaggle Google dataset s	e datasets,	UCI m	
Method of Assessment	Interr	nal: Lab Observat	ion/Assignment			
RGPV (DIPL WING) BHOPAL	ΟΜΑ	OBE CUR THE COURS		DR FORM 3	N	Sheet lo. /5
Branch Informat	ion Te	chnology		Semester		V
Course Code 50)2	Course Name	Artificial Intel Learning	elligence	with Ma	achine
Course Outcome - 5		y Machine lea fuzzy system	arning model	activities	Teach Hrs	Mar ks
Learning Outcome 13	Class mod	-	learning clas	sification	8	10
Contents	d	ecision tree,	concepts, basic <, Finding precis			tion of
Method of Assessment	Exter	nal: End semeste	r theory examina	tion (Pen pa	per test).	

Learning Outcome 14	Explain fundamental of fuzzy logic 9 10 system
Contents	 Fuzzy logic: Introduction, Crisp Sets, fuzzy sets & its operations Membership function, Defuzzification & its methods Arithmetic operation on fuzzy numbers
Method of Assessment	External: End semester theory examination (Pen paper test).
Learning Outcome 15	Make use of Machine learning techniques1010
Contents	 Perform various activity with machine to recognize images, sound and poses (Open Web sources eg. AI.google, teachable machine, machinelearningforkids) Make a simple ML Model.
Method of Assessment	External: Laboratory observation and viva voce.

REFERENCE BOOKS:

S No	Title & Publication	Author
1	Artificial Intelligence (3 rd edition) published by Tata McGraw Hill	Elanlne Rich & Kevin Knight
2	Artificial intelligence and soft computing behavioural & cognitive modelling of human brain Published by CRC Press	Amit Konar
3	Artificial intelligence: A modern Approach(3 rd Edition) Published by Pearson educ. Inc.	Stuart Russell , Peter Norvig
4	Machine learning- published by Tata McGraw Hill	Tom M. Mitchell
5	Advanced machine learning with python- published by PACKT	John Hearty
9	https://www.ai.google/	Open Web Resource
10	https://www.machinelearningforkids.co.uk	
11	https://teachablemachine.withgoogle.com	
12	https://www.javatpoint.com/artificial-intelligence- tutorial	Open Web Resource

RC	GPV (Diplon	na Wing) Bhopal	SCHEME FOR OUTCO		Bra	anch (Code	C	ourse C	Code	CO Code	LO Code	For	mat No. 4
			00100	OWIE	Ι	0	4	5	0	2	1	1		
COUR	SE NAME	Artificial Intellige	ence with Machine Lear	ning										
CO Des	scription	Utilize AI tools te	chnique & algorithms t	o learn its behav	viour an	d app	licatio	ns						
LO Des	scription	Summarize AI co	ncepts											
		1		SCHEME O	F STUI	DY								
S. No.		Learning Co	ntent	Teaching – Learning Method	D		otion of rocess	f T-L	Teac h Hrs.	Pract /Tut Hrs.		Rs Requ	ired	Remarks
1	limitati AI buil 	al Intelligence: d ons, types, application ding blocks & Infras luction system & its	ons, challenges structure	Interactive classroom teaching, demonstration, quiz, assignments, tutorial	MethodHrs.Hrs.InteractiveTeacher will explain6classroomthe contents and6teaching,provide handouts to6demonstration,students. Teacher will6quiz,conduct assignments/6						boa boo	ndouts, cl rd, PPT, k, charts eo film.	text	
				SCHEME OF A	SSESSI	MENT	[
S. No.	Methoo	l of Assessment	Description of A	ssessment		imum ırks			Resour	ces Requ	uired			External / Internal
1	Pen paper	test	Student will be asked (basics of artificial intel	•	1	0		Qu	estion pa	aper + Ra	ting sca	le		External
			ADDITIONAL INSTI	RUCTIONS FO	R THE	HOD/	' FACU	JLTY	(IF ANY	Y)				
• 5	Students can only the answ	act out with a list of vers given, while an	f Artificial intelligence v questions and answers. other will act as the hum back to the class, which	There will be thr nan, answering q	ee stude uestions	nts. Or as the	ne stude y see fi	ent wil it; both	l act as t should	he compu be locate	uter, res d outsic	ponding le the cla	to que	U

RG	RGPV (Diploma Wing) Bhopal		E FOR LEARNI	NG	Bra	nch C	ode	C	ourse Co	ode	CO Code	LO Code	Format No. 4	
			(DUTCOME		Ι	0	4	5	0	2	1	2	
COUR	SE NAME	Artificial Intellig	ence with Machin	ne Learning	I	I								
CO Des	scription	Utilize AI tools te	chnique & algor	ithms to learn its	behavi	iour aı	nd app	licatio	ns					
LO Des	scription	Explain AI algori	ithms & techniqu	ies										
		·		SCHE	ME OF	STUE	Y							
S. No.		Learning Conte	ent	Teaching – Learning Method		iption Proces			ach rs.	Pract. /Tut Hrs.		LRs Req	uired	Remarks
1	searchInformSearch	 Uninformed Search Strategy: Breadth first search, Depth first search Informed Search Strategy(Heuristic Search): A* & AO* algorithms 		Interactive classroom teaching, demonstration, quiz, assignments, tutorial	explai and pri hando studer will co assign quiz/tr make	uts to nts. Tea onduct ments/ utorial studen ce their	ontents acher to ts		5	NIL	Handouts, chalk board, PPT, text book, charts, video film.			
				SCHEME	OF AS	SESSN	IENT							
S. No.	Method	l of Assessment	Descriptio	n of Assessment		Maxi Ma				Resourc	es Re	quired		External / Internal
1	Pen paper	test	Student will be a to AI algorithm	asked question rel and techniques	ated	1	0]	Fest Pape	er + rat	ting scale		External
			ADDITIONAL	INSTRUCTION	S FOR	THE	HOD/	FACU	LTY	(IF ANY)			
]	Instructor ca	n perform various g	ames related to Bl	FS, DFS, Hill clin	nbing. (eg. pac	man ga	ume for	r unde	rstanding	g the co	oncept of	DFS)	

RG	RGPV (Diploma Wing) Bhopal	SCHEME FOR LE OUTCOM			nch (Code	С	ourse Co	ode	Code Co		Format No. 4	
					Ι	0	4	5	0	2	1	3	
COUR	SE NAME	0	ence with Machine Learnin	0									
CO Des	cription	Utilize AI tools te	chnique & algorithms to le	earn its behavi	our an	d ap	plication	IS					
LO Des	cription	Identify AI tools a	and technologies										
				SCHEME OF	STUD	Y							
S. No.	I	earning Content	Teaching – Learning Method	Descriptio Proc		·L	Teach Hrs.		act. /Tut Hrs.	I	.Rs Requ	uired	Remarks
1	• Install	ges (Python) f nentation & configure AI python (Scikit, v, nltk, ma	amming Interactive lab for AI classroom teaching, libraries demonstration, pandas, quiz, tplotlib, assignments, tutorial	Teacher will demonstrate components the lab to stu- students will provide quiz assignment teacher will remedial an- tutorials.	e major inside udents, l practi z, etc., conduc		NIL		4	boa boo Cor	ndouts, c Ird, PPT, Ik, charts mputers/t tors/IDE	text	
			SCI	HEME OF ASS	SESSM	ENT	Г					i	
S. No.	Method	of Assessment	Description of Ass	essment	-	axim Mark	-		Resou	rces F	Required	l 	External / Internal
1	Lab Obser	vation/Assignment	Student will be asked to and install python librar important for artificial inte	ries which are		10		Ob			dule/chec s /rubrics		External
			ADDITIONAL INSTRUC	CTIONS FOR	THE H	IOD/	/ FACUI	LTY (IF ANY)			
				NIL					-				

RG	PV (Diplon	na Wing) Bhopal		E FOR LEAR	NING	Br	anch (Code	С	ourse Co	ode	CO Code	LO Code	Format No. 4
	` I	<i>6,</i> 1		OUTCOME		Ι	0	4	5	0	2	e Code Code		
COUR	SE NAME	Artificial Intellige	ence with Machi	ine Learning										
CO Des	scription	Utilize AI tools te	chnique & algo	rithms to learn	its beha	viour a	nd ap	olicatio	ns					
LO Des	cription	Solve AI problem	IS											
		1		SCH	IEME O	F STU	DY							
S. No.		Learning Conte	nt	Teaching – Learning Method		ption o Process			ach rs.	Pract /Tut Hrs.		LRs Rec	luired	Remarks
1	problem,	ic AI problems (8-Queen problem, ing python program	Optimal Path	Interactive lab classroom teaching, demonstratio n, quiz, assignments, tutorial	ajor side ents, de ent ill lial	N	IL	4	bo bo Co	oard, PPT ook, chart omputers/				
				SCHEM	IE OF A	SSESS	MENT	1						
S. No.	Method	of Assessment	Descripti	on of Assessme	nt		imum arks			Resourc	es Re	quired		External / Internal
1	Lab observ	ration/Assignment	Student will be report to implet problems using		e		10	O	bserva		dule/c s /rub	check-list rics	/rating	Internal
			ADDITIONAL	INSTRUCTIO			HOD	FACU	LTY	(IF ANY)			·
					NII	_								

RG	RGPV (Diploma Wing) Bhopal	SCHEME FO		Br	anch C	ode	C	ourse C	ode	CO Code	LO Code	Format No. 4	
		87 1	OUTC	COME	Ι	0	4	5	0	2	2	5	
COURS	SE NAME	Artificial Intellig	ence with Machine Lo	earning									
CO Des	cription	Apply AI search	strategy in different a	ireas									
LO Des	cription	Outline Knowled	lge Representation for	· AI logic concep	t								
				SCHEME O	F STU	DY							
S. No.	Lea	arning Content	Teaching – Learning Method	Description of Process	T-L	Teach Hrs.		ract. ut Hrs.	Ι	Rs Re	quired		Remarks
1	 Knowledge Representati Concept, Issues, Approaches Propositional and Predic logic Semantic Network, Concept Dependency 		es classroom icate teaching, demonstration,	Teacher will exp the contents and provide handour students. Teacher conduct assignm quiz/tutorial to r students practice knowledge.	ts to er will nents/ nake	8		NIL			halk boar ook, chart	· ·	
				SCHEME OF A	SSESS	MENT							
S. No.	Method	of Assessment	Description of A	Assessment		imum arks			Resour	ces Re	quired		External / Internal
1	Pap	er pen test	Student will be asked of knowledge represer			10		Т	est pape	er + Rat	ing scale		Internal
	1		ADDITIONAL INST	RUCTIONS FO	R THE	HOD/	FACI	J LTY (IF AN	Y)			1
				NI						-			

RG	PV (Diplon	a Wing) Bhopal		FOR LEARNING	Br	Branch Code			Course Code			LO Code	Format No. 4
		8) I	Ol	JTCOME	Ι	0	4	5	0	2	2	Code 6 Code 6	
COURS	SE NAME	Artificial Intellig	ence with Machine	Learning							'		
CO Des	cription	Apply AI search	strategy in differer	nt areas									
LO Des	cription	Explain Natural	language processin	g & Gaming Strategy									
				SCHEME OF	STU	DY							
S. No.		Learning Cont	tent	Teaching –Learnin Method	g]	-	otion of rocess	T-L	Tea Hr		Pract. /Tut Hrs.	LR Requi	Remark
1	down & • Gaming	bottom up sentence	Ain-max Search	Interactive classroom teaching, demonstration, quiz, assignments, tutorial	th pr str cc qu st	e conte ovide l udents. onduct a uiz/tuto	will exp nts and nandout Teache assignm rial to n practice ge.	s to er will nents/ nake	8		NIL	board, PPT, te	xt
			_	SCHEME OF AS	SESS	MENT	[
S. No.	Method	of Assessment	Description	of Assessment		kimum arks			Resour	ces R	equired		External / Internal
1	Pen paper 1	est	Student will be as NLP and gaming s	*		10		Ques	stion pa	per +	Rating scal	e	External
	1		ADDITIONAL IN	ISTRUCTIONS FOR	THE	HOD	' FACU	LTY (IF ANY	2)			

RG	RGPV (Diploma Wing) Bhopa DURSE NAME Artificial Intel		SCHEME FO		Br	anch (Code	Co	Course Code			LO Code	Format No. 4
			0010	JUME	Ι	0	4	5	0	2	2	7	
COURS	SE NAME	Artificial Intellige	ence with Machine Lea	arning									
CO Des	cription	Apply AI search s	strategy in different a	reas									
LO Dese	cription	Make use of AI P	rocessing & Predictin	g behaviour									
		·		SCHEME (OF STU	DY							
S. No.		Learning Co	ntent	Teaching – Learning Method		ription Proce	of T-L ss		ach rs.	Pract. /Tut Hr		s Requir	ed Remarks
1	(eg. Pythor	of available AI pr n) for creating conv anslator, sentimental	Interactive lab classroom teaching, demonstration , quiz, assignments, tutorial	lab to s student provide assignm teacher	strate n nents in tudents s will p e quiz, nent et will co	nside the s, practice		L	4	boar boo Con	idouts, ch rd, PPT, t k, charts, nputers/te ors/IDE.	ext	
				SCHEME OF A	ASSESS	MENT	Γ						
S. No.	Method	of Assessment	Description of A	Assessment		imum arks			Resou	irces Req	uired		External / Internal
1	Lab Obser	vation/Assignment	Student will be asked conversational application]	10	O	oservat		hedule/cł ales /rubr		/rating	External
	1		ADDITIONAL INST	RUCTIONS FC	R THE	HOD/	/ FACU	LTY (IF AN	NY)			1
		Teacher will	l teach production rules	for AI problems	so stude	ents cai	n be eas	ly imp	lemei	nt it on ma	achine.		

RG	PV (Diplon	na Wing) Bhopal	SCHE	ME FOR LEARN	NING	Br	anch (Code	C	ourse C	Code	CO Code	LO Code	Format No. 4
_		8) I		OUTCOME		Ι	0	4	5	0	2	3	8	
COUR	SE NAME	Artificial Intellige	ence with Mac	hine Learning										
CO Des	cription	Classify Artificial	l neural netwo	rk and genetic al	gorithm	S								
LO Des	cription	Explain concept of	of Artificial Ne	eural network										
				SCH	EME O	F STU	DY							
S. No.		Learning Conten	ıt	Teaching – Learning Method	Desc	ription Proce			Гeach Hrs.	Pra /Tut		LRs R	equired	Remarks
1	ArtificiANN: Network	Human intelligence, al Neurons, Introduction, Struct k, Applications k, Hebb network	C	Interactive classroom teaching, demonstration, quiz, assignments, tutorial	the con provid studen condu quiz/tu	er will ntents a le hand its. Tea ct assig itorial t its prac- edge.	nd outs to cher wi nments o make	111 s/	7	N	IL	Handout board, Pl book, ch film.	· ·)
	1			SCHEM	E OF A	SSESS	MENT	,						
S. No.	Method	l of Assessment	Descrip	tion of Assessme	nt		imum arks			Resour	·ces R	equired		External / Internal
1	Pen paper	test	Student will b ANN	be asked Questions	s on		10		Que	estion pa	aper +	Rating sca	le	External
	1		ADDITIONA	L INSTRUCTIO	ONS FOI	R THE	HOD/	FAC	ULTY	(IF AN	Y)			
represer	ting input la	monstrate neural neary neary neary hidden layer , but layer finally gets	hidden layer 2	2 and output layer	respec	tively.	Input	layer						

RG	SPV (Diplon	na Wing) Bhopal	SCHI	EME FOR LEAR	NING	Br	anch (Code	Co	urse C	ode	CO Code	LO Code	Format No. 4	
_		6/ I ^{**}		OUTCOME		Ι	0	4	5	0	2	3	9		
COUR	SE NAME	Artificial Intellige	ence with Ma	chine Learning									-		
CO Des	scription	Classify Artificia	l neural netw	ork and genetic al	lgorithm	IS									
LO Des	cription	Classify Genetic a	algorithm												
				SCH	IEME O	F STU	DY								
S. No.		Learning Conten	t	Teaching – Learning Method	Des	scriptio Proc		-L	Teach Hrs.	Pra /T Hr	ut	LRs Re	equired	Remarks	
1	Algorithm	gorithm : Concept, of GA, Crossover & Mutati		Interactive classroom teaching, demonstration, quiz, assignments, tutorial	conter hando Teach assign quiz/tu	er will nts and uts to s er will ments/ utorial t nts prac edge.	provide tudents conduc	e s. e	8	NI	L	board, PP	Handouts, chalk board, PPT, text book, charts, video film.		
				SCHEM	IE OF A	SSESS	MENT	[
S. No.	Method	l of Assessment	Descrij	ption of Assessme	nt		imum arks]	Resour	ces R	equired		External / Internal	
1	Рај	per pen test	Student will of Genetic a	be asked basic cor lgorithm	ncept		10		Quiz	Test pa	nper +	- Rating sca	lle	Internal	
	1		ADDITION	AL INSTRUCTIO	ONS FO	R THE	HOD/	' FAC	ULTY (FAN	Ŋ				
					NII										

RG	PV (Diplon	a Wing) Bhopal		OR LEARNING	B	ranch (Code	Co	ourse Co	de	CO Code	LO e Code	Format No. 4
		8) T	OUT	COME	Ι	0	4	5	0	2	4	10	
COURS	SE NAME	Artificial Intellige	ence with Machine Lo	earning									
CO Des	cription	Construct Machin	ne Learning activities	5									
LO Des	cription	Explain machine	learning from examp	oles									
				SCHEME O	F STU	DY							
S. No.		Learning Cor	itent	Teaching – Learning Metho		Descrip P	otion of rocess	f T-L	Teach Hrs.		ract. It Hrs.	LRs Require	ed Remarks
1		ised learning:	ML need & future Regression & regression, logistic means	Interactive classroom teachin demonstration, quiz, assignments tutorial	g, th pi , st co qu st	eacher vie conte covide h udents. onduct a uiz/tutor udents j nowledg	nts and aandout Teache assignm rial to r practice	ts to er will nents/ nake	10	1	NIL	Handouts, chalk boar PPT, text book, char video film	rd, rts,
				SCHEME OF AS	SSESS	SMENT	ר -						
S. No.	Method	of Assessment	Description of	Assessment		kimum arks			Resource	es Re	quired		External / Internal
1	Pen paper	rest	Student will be asked ML	d Questions on		10		Que	stion pape	er + R	lating so	cale	External
			ADDITIONAL INS	FRUCTIONS FOR	R THF	E HOD/	' FACI	JLTY (IF ANY)				
				NIL									

RG	SPV (Diplon	na Wing) Bhopal	SCHEME FOR L		Br	anch C	Code	Co	urse C	ode	CO Code	LO Code	Format No. 4
		8/ F	OUTCON	ЛЕ	Ι	0	4	5	0	2	4	11	
COUR	SE NAME	Artificial Intellige	ence with Machine Learn	ing								·	
CO Des	scription	Construct Machi	ne Learning activities										
LO Des	scription	Explain reinforce	ement learning & dataset	for ML proc	essing								
		·		SCHEME C	F STU	DY							
S. No.		Learning (Content	Teachin Learning N	0	Dese	cription Proce			ach rs.	Pract. /Tut Hrs.	LRs Requi	Remarks
1	applicaDatase	tions	: Introduction, types & s of data processing, data	Interactive classroom teaching, demonstrativ quiz, assign tutorial	,	the co provid stude condu quiz/t stude	her will ontents de hand nts. Tea act assi- tutorial nts prac- ledge.	and louts to acher w gnment to make	ill s/	6	NIL	Handou chalk board, PPT, te book, charts, video fi	xt
			SC	HEME OF A	SSESS	MENT	ר -						
S. No.	Method	of Assessment	Description of Asse	essment		timum arks			Resour	ces R	Required		External / Internal
1	Paj	oer pen test	Student will be asked bas of dataset and reinforcem			10		Quiz	Test pa	aper +	⊦ Rating sca	le	Internal
	1		ADDITIONAL INSTRU	CTIONS FO	R THE	HOD/	FACU	LTY (FAN	Ŋ			
				NI	L								

RG	PV (Diplon	na Wing) Bhopal	SC	HEME FOR LEAR OUTCOME	NING	Br	anch (Code	C	ourse C	ode	CO Code	LO Code	Format No. 4
				OUICOME		Ι	0	4	5	0	2	4	12	
COURS	SE NAME	Artificial Intellige	ence with N	Aachine Learning										
CO Des	cription	Construct Machin	ne Learnin	g activities										
LO Des	cription	Experiment with	ML open s	ource development	environi	nent								
		·		SCH	IEME O	F STU	DY							
S. No.		Learning Content		Teaching – Learning Method		ption o Process		Teacl Hrs.		Pract. / Hrs.		LRs R	quired	Remarks
1	(Training s available s machine	Le			Teache demons compor the lab student practice quiz, as etc., tea conduc and tut	strate m nents in to stude s will e, provi- ssignme icher w t remed	side ents, de nt ill	NIL	. 8			Handout: board, Pl book, cha Compute editors/II		
	·			SCHEM	IE OF A	SSESS	MENT	1						
S. No.	Method	l of Assessment	Desc	cription of Assessme	nt		imum ırks			Resour	ces R	equired		External / Internal
1	Lab observ	evelop simple machi pplication					serva	vation schedule/chec scales /rubrics			/rating	Internal		
			ADDITIO	NAL INSTRUCTIO	ONS FO	R THE	HOD/	FACUI	LTY (IF AN	Y)			1
			Ins	truct to do Machine le	earning n	nodel e	cercise	through	Kagg	le				

RG	PV (Diplom	a Wing) Bhopal	SCH	EME FOR LEAF	RNING	Br	anch (Code	0	Course C	Code	CO Code	LO Code	Format No. 4
	` I	8, 1		OUTCOME		Ι	0	4	5	0	2	5	13	
COUR	SE NAME	Artificial Intellig	gence with M	lachine Learning										
CO Des	cription	Apply Machine	learning mod	del activities with	fuzzy sys	tem								
LO Des	cription	Classify Machin	e learning cl	assification mode	1									
		·		SC	HEME O	F STU	DY							
S. No.		Learning Content	t	Teaching – Learning Method		iption Proces	of T-L s		ach rs.	Pract. Hr		LRs I	Required	Remark
1	 Decision structure tree, Confus & recal 	re, construction o	of decision	Interactive classroom teaching, demonstration, quiz, assignments, tutorial	the con provide student conduc quiz/tu student	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.				NIL		Handout board, Pl book, ch film.)	
				SCHEM	ME OF A	SSESS	MENT	1						
S. No.	Method	of Assessment	Descr	iption of Assessm	ent		timum arks			Resour	ces R	equired		External / Internal
1	Pen paper to		be asked Questions on e and confusion matrix 1 cal problems				Qu	Question paper +		Rating sca	le	External		
			ADDITION	AL INSTRUCTI	IONS FO	R THE	HOD/	FACU	JLTY	(IF AN	Y)			
		Fa		enhanced the decis						`	· · ·			

RG	PV (Diplon	a Wing) Bhopal	SCHEME FOI		Br	anch C	ode	Co	ourse C	ode	CO Code	LO Code	Format No. 4
		8) 1	OUTC	COME	Ι	0	4	5	0	2	5	14	
COURS	SE NAME	Artificial Intellig	gence with Machine Lea	arning									·
CO Des	cription	Apply Machine	learning model activitie	es with fuzzy syst	em								
LO Des	cription	Explain fundam	ental of fuzzy logic syst	em									
				SCHEME O	F STU	DY							
S. No.	Learn	ing Content	Teaching –Learning Method	Description of Process	T-L	Teach Hrs.		ract. 1t Hrs.	Ι	.Rs Re	quired		Remarks
1	 Sets, operat Memb Defuzz method Arithm 	ership function, zification & its ds	Teacher will exp the contents and provide handour students. Teacher conduct assignm quiz/tutorial to n students practice knowledge.	ts to er will nents/ nake	9]	NIL	PPT,		halk boar ook, chart	· ·		
				SCHEME OF A	SSESS	MENT							
S. No.	Method	of Assessment	Description of A	ssessment		imum arks			Resour	ces Re	quired		External / Internal
1	1Pen paper testStudent will be asked Questions related to fuzzy logic, membersh function & simple arithmetic					10		Ques	uestion paper + R		Rating sca	le	External
	1		ADDITIONAL INST	RUCTIONS FO	R THE	HOD/	FACU	LTY (IF ANY	Y)			1
				NII						,			

RG	PV (Diplon	na Wing) Bhopal	SCHEME FOI		Br	anch C	ode	Co	ourse C	ode	CO Code	LO Code	Format No. 4	
	× I	87 I	OUTC	OME	Ι	0	4	5	0	2	5	15		
COURS	SE NAME	Artificial Intellig	ence with Machine Lea	arning										
CO Des	cription	Apply Machine le	earning model activitie	es with fuzzy syst	em									
LO Des	cription	Make use of Mac	hine learning techniqu	es										
		·		SCHEME O	F STU	DY								
S. No.	Learn	ing Content	Teaching –Learning Method	Description of Process	T-L	Teach Hrs.		Pract. Tut Hrs.	Ι	.Rs Re	quired		Remarks	
1	recogni sound Web AI.goo machin	with machine to ize images, and poses (Open sources eg. gle, teachable	Interactive lab classroom teaching, demonstration, quiz, assignments, tutorial	Teacher will Te will demonstrate major componer inside the lab to students, student practice, provide quiz, assignmen teacher will com- remedial and tutorials.	e nts ts will e t etc.,	NIL		10		opmen	PT, ML t IDE		ent must be re with skfuzzy	
	1			SCHEME OF A	SSESS	MENT								
S. No.	Method	of Assessment	Description of A	ssessment		arks			Resour	ces Re	quired		External / Internal	
1	Lab Obser	vation/Assignment	ML fuzzy based ap	Student will be asked to develop an ML fuzzy based application or to recognize content as image, audio and positions				Observat	ation schedule/check-lis scales /rubrics			/rating	External	
			ADDITIONAL INST	RUCTIONS FO	R THE	HOD/	FAC	CULTY (IF ANY	Z)				
give at r	estaurant. It	can be design into t	uzzy control system as a hree steps.	•										

Create membership values [import skfuzzy, numpy libraries; create fuzzy set (restaurant service: poor, acceptable, amazing; Quality: bad, decent, great)]
 Specify Fuzzy rules [Tip: low, medium, high (eg: if service was good or food quality was good then tip will be high]
 Deffuzification for output [if rate the service as 9.5 & quality 6.5 then leave 20% tip].