

INDUS UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE

Departmental Vision:

The department of Computer Applications aims to generate groomed, technically competent and skilled intellectual professionals to meet the current challenges of the modern computing industry with greater social impact.

Departmental Mission:

The missions of department are:

M1: To offer high-grade, value-based Graduate and Post-graduate program in the field of Computer Applications.

M2: To provide conducive environment so as to achieve excellence in teaching-learning, research and development activities.

M3: To facilitate students to nurture skills and professional competency to meet the ever-changing needs of society and industry.

M4: To provide students with the tools to become productive, participating global citizens and life-long learners.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1. Ability to demonstrate and implement the core concepts of Information Technology, principles and Tools to design IT systems effectively.

PSO2. Able to prepare students with the base of computer science skills and practical knowledge to meets social and global requirement.

Program Outcomes(POs)

Computer Application & Information Technology graduates will be able to:

PO1. IT knowledge: Apply the knowledge of mathematics, science, IT fundamentals and specialization to the solution of complex problems.

PO2. Problem analysis: Ability to identify and formulate problems related to information technology and applies knowledge to solve industry problems.

PO3. Design/development of solutions: Ability to design, develop, test and maintain system as per the needs of industry.

PO4. Conduct investigations of complex problems: Ability to apply mathematical models, algorithms in the computer based system.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern IT tools including prediction with an understanding of the limitations.

PO6. The digital youth and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional skill-set.

PO7. Ethics: Recognize and apply the ethical role and responsibility.

PO8. Individual and team work: Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary.

PO9. Communication: Communicate effectively on complex activities with the IT community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO10. Project management and finance: Demonstrate knowledge and understanding of the IT and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO11. Life-long learning: Ability to engage in lifelong learning in the broadest context of technological change.

A.Y.2019-2020

SEMESTER-VIII

Subject Name: Internet of Things (IMSC0809)

Course Outcomes

CO 1: Analyze the vision of IoT from a global context. (BT-1,2)

CO 2 Determine hardware and software components of IoT. (BT- 3)

CO 3: Integration of other technologies in IoT (BT- 3)

CO 4: Use of devices, protocols and data management in IoT. (BT-4,5)

CO 5: Application of IoT in industrial and commercial automation. (BT-5,6)

CO 6: Apply IoT integration knowledge with cloud and big data. (BT-6)

COURSE OUTCOME (CO) and PROGRAM OUTCOME (PO) Matrix

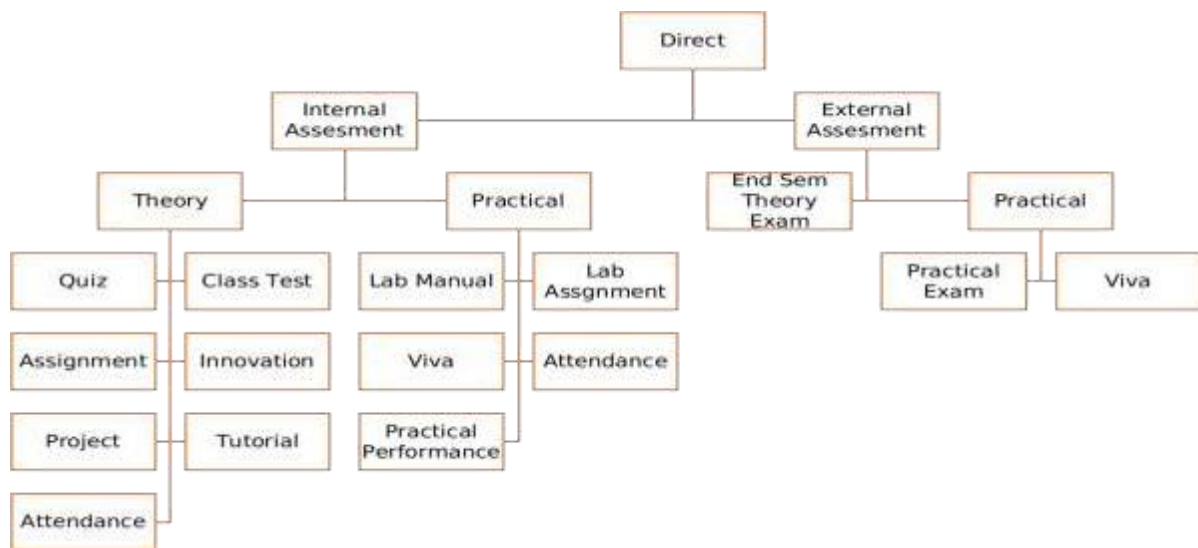
(1- Low, 2-Medium, 3- High) (Average of COs course

wise for each POs)

CO	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO10	PO11	PO12
CO 1	2	1	3	1	1	-	-	-	-	1	-	-
CO 2	-	2	2	3	1	-	-	-	-	1	-	-
CO 3	1	3	1	2	2	-	-	-	-	2	-	-
CO 4	-	-	2	-	3	-	-	-	-	1	-	-
CO 5	2	1	1	1	2	-	-	-	-	3	-	-
CO 6	-	3	2	2	1	-	-	-	-	1	-	-

COURSE OUTCOME and PROGRAM SPECIFIC OUTCOME Matrix

CO	PSO 1	PSO 2
CO 1	2	1
CO 2	1	-
CO 3	1	2
CO 4	1	2
CO 5	2	1
CO 6	3	-
MSC0211	2.5	2



Direct Assessment method – The knowledge and skills learnt by the students are assessed directly from their performance through internal assessment and external assessment processes.

External assessment- Performance of student is recorded in university theory exams, laboratory exams and project evaluation.

Internal assessment- Performance of student is recorded through class assignments and tutorials, internal assessment tests, laboratory assignments, seminars and project progress review and evaluation.

Attainment of Course Outcomes (CO's) Test

For End Semester Theory and Practical Exams

1. Attainment Level 1: If <45% students scoring $\geq 60\%$ marks
2. Attainment Level 2: If >45-75% students scoring $\geq 60\%$ marks
3. Attainment Level 3: If >75-100% students scoring $\geq 60\%$ marks

For Internal Theory and Practical Exams

1. Attainment Level 1: If <45% students scoring $\geq 75\%$ marks
2. Attainment Level 2: If >45-75% students scoring $\geq 75\%$ marks
3. Attainment Level 3: If >75-100% students scoring $\geq 75\%$ marks

Internal Component with COs mapping

Component-1: Assignment/Class Participation (CO1, CO2, CO3, CO4, CO5, CO6)

Component-2: Class Test (CO1, CO2, CO3, CO4, CO5, CO6)

Component-3: Internal Practical (CO1, CO2, CO3, CO4, CO5, CO6)

Course Attainment Academic Year 2019-2020

Course Name with Code	Internet of Things - IMSC0809
Class	Integrated MscIT Semester-VIII
Faculty Name	Prof. Madhavi Dave

CO Attainment	1	2	3	Internal assessment component total (1 to 3)
Internal component				
CO 1	2	1	1	1.3
CO 2	1	2	2	1.7
CO 3	1	1	2	1.3
CO 4	2	1	1	1.3
CO 5	1	1	2	1.3
CO 6	1	1	1	1.0

Indirect Attainment from the students feedback for each COs

S.N	Course Outcome	L	M	H
1	Are you able to understand the vision of IoT from a global context?	2	2	2
2	Determine hardware and software components of IoT	3	1	2

3	Integration of other technologies in IoT	2	3	1
4	Use of devices, protocols and data management in IoT.	3	1	2
5	Application of IoT in industrial and commercial automation.	1	4	1
6	Apply IoT integration knowledge with cloud and big data.	3	2	1

1-Low(L), 2-Medium(M), 3- High(H) Total

studentgivenfeedback:6 outof 16

S.N	Course Outcome	Value
1	Are you able to understand the vision of IoT from a global context?	2.2
2	Determine hardware and software components of IoT	2.1
3	Integration of other technologies in IoT	2.0
4	Use of devices, protocols and data management in IoT.	2.2
5	Application of IoT in industrial and commercial automation.	2.4
6	Apply IoT integration knowledge with cloud and big data.	2.1

% CO Attainment	Internal Exam	Internal Exam *0.6	End sem Exam	End sem Exam*0.4	Direct Attainment (DA)	Indirect Attainment (IA)	Overall = 0.8*DA + 0.2*IA
CO 1	2.2	1.3	2	0.8	2.1	2.3	2.156
CO 2	2.1	1.3	2	0.8	2.1	2.3	2.108
CO 3	2	1.2	3	1.2	2.4	2.4	2.4
CO 4	2.2	1.3	2	0.8	2.1	2.4	2.176
CO 5	2.4	1.4	3	1.2	2.6	2	2.51
CO 6	2.1	1.3	3	1.2	2.5	2.1	2.388
	OverallCourseAttainment						2.29
	SetTargetforthe course						2.1
	Course Attainment Status(Yes/No)						Yes

Best Performing CO:	6
Least Performing CO	1

Observations:

1	The target attainment for course outcome is approximately to the achieved course outcome.
2	The students are more inclined towards implementation of IoT
3	It gives a encouraging feedback that students are getting more practical knowledge.

Plan of Action:

1	More emphasize is to be given on Aurdio Programming
2	Creating case study for implementation

Faculty Signature