



GUJARAT TECHNOLOGICAL UNIVERSITY
Syllabus for Bachelor of Vocation (B.Voc.), 6th Semester
Branch: Information Technology
Subject Name: Internet of Things
(SSC/Q8209)
Subject Code: 1160507

Type of course: On-Job Training (Elective)

Prerequisite: NA

Rationale: - On-job training, also known as OJT, is a hands-on method of teaching the skills, knowledge, and competencies needed for students to Performa specific task within the workplace. Students learn in an environment where they will need to practice the knowledge and skills obtained during their training.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE(E)	PA(M)	ESE(V)	PA(I)		
0	0	30	15	0	0	100	100	200

L- Lectures; T- Tutorial/Teacher Guided Student Activity; P- Practical; C- Credit; ESE- End Semester Examination; PA-Progressive Assessment

OJT Hands on Exercise/Training:

Sr. No.	Training/Hands on Exercise	Hrs
1	<p>Develop simulations and manage tests for end-to-end IoT solutions</p> <p>PC1. Simulate the IoT solution during or prior to the development process PC2. Test IoT device discovery and device communications processes PC3. Test device performance (such as battery, heating and signal strength tests, etc.) PC4. Test all interfaces of IoT solution PC5. Test performance and security of end-to-end solution PC6. Identify Automation suites PC7. Develop Automation Infrastructure PC8. Develop and execute automation for each test case</p>	40
2	<p>Develop design methodology for functional testing of end-to-end IoT solutions</p> <p>PC1. Create or modify test scenarios relevant to the requirements PC2. Create or modify automated scripts relevant to the requirements PC3. Access or create test data relevant to the requirements PC4. Run the simulated test cases and evaluate the outcomes PC5. Ensure that individual codes of the IoT solution are functional PC6. Ensure that individual codes of the IoT solution work as per specifications PC7. Ensure that the integrated IoT solution works as per specifications</p>	50
3	<p>Create technical documents and manuals</p> <p>PC1. Identify the purpose and the scope of the activity for which technical documentation is to be produced PC2. Obtain information for the technical document from relevant sources and</p>	50



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	stakeholders PC3. Review technical document content with relevant stakeholders and document owners PC4. Ensure that technical document is formatted and designed as per specifications PC5. Transfer technical document to relevant stakeholders for sign-off and publishing	
4	Manage and collaborate with stakeholders for project success PC1. Identify the larger business and organizational context behind the requirements of the stakeholder PC2. Consult stakeholders early in critical organization-wide decisions PC3. Keep stakeholders updated on changes in project requirements PC4. Define the frequency of communication with all the stakeholders PC5. Use suitable tools to represent numbers and pictures to present details PC6. Respond to requests in a timely and accurate manner	60
	Total	200

Course Outcomes

Sr.No.	Co statements:	Marks % Weightage
CO 1	Simulate the IoT solution during or prior to the development process	40
CO 2	Create or modify test scenarios relevant to the requirements	50
CO 3	Identify the purpose and the scope of the activity for which technical documentation is to be produced	50
CO 4	Identify the larger business and organizational context behind the requirements of the stakeholder	60
	TOTAL	200

Reference

https://nsdcindia.org/sites/default/files/SSCQ8206_IoT_Test_Analyst_v1_20_09-2019.pdf