



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

COURSE CONTENT

ROBOTIC PROCESS AUTOMATION								
II Semester: CSE								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
2525818	Foundation	L	T	P	C	CIA	SEE	Total
		3	0	0	3	40	60	100
Contact Classes: 45	Tutorial Classes: Nil	Practical Classes: Nil			Total Classes: 45			
Prerequisites: Basic understanding of software development life cycle and testing fundamentals.								

Course Overview:

This course introduces the fundamentals of Robotic Process Automation, focusing on automating repetitive and rule-based business processes using software bots. It covers RPA architecture, tools (such as UiPath and Automation Anywhere), workflow design, screen scraping, data manipulation, and integration techniques.

Course Objectives:

1. To understand the fundamentals, architecture, and applications of Robotic Process Automation (RPA).
2. To learn automation tools and bot creation techniques using platforms such as Automation Anywhere and UiPath.
3. To develop skills in workflow design, task automation, and business process integration.
4. To explore web control room management, device configuration, and enterprise automation features.
5. To implement advanced RPA solutions using recorders, command libraries, error handling, and workflow designers.

Course Outcomes: After Completion of the Course, Students should be able to

1. Apply RPA concepts and Automation Anywhere features for automating repetitive business processes.
2. Analyze web control room components to manage enterprise-level automation tasks effectively.
3. Evaluate device pools, workloads, and administration settings to ensure secure, scalable, and efficient deployment of RPA solutions in organizations.
4. Distinguish recording tools and command libraries to optimize task automation in real-world scenarios.
5. Create advanced automation workflows using object cloning, error handling, PDF/FTP/PGP integration, and workflow designers for end-to-end digital transformation.

UNIT - I:

Introduction to Robotic Process Automation & Bot Creation Introduction to RPA and Use cases – Automation Anywhere Enterprise Platform – Advanced features and capabilities – Ways to create Bots

UNIT - II:

Web Control Room and Client Introduction - Features Panel - Dashboard (Home, Bots, Devices, Audit, Workload, Insights) - Features Panel – Activity (View Tasks in Progress and Scheduled Tasks)

- Bots (View Bots Uploaded and Credentials)

UNIT - III:

Devices (View Development and Runtime Clients and Device Pools) - Workload (Queues and SLA Calculator) - Audit Log (View Activities Logged which are associated with Web CR) - Administration (Configure Settings, Users, Roles, License and Migration) - Demo of Exposed API's – Conclusion – Client introduction and Conclusion.

UNIT - IV:

Bot Creator Introduction – Recorders – Smart Recorders – Web Recorders – Screen Recorders - Task Editor – Variables - Command Library – Loop Command – Excel Command – Database Command - String Operation Command - XML Command

UNIT - V:

Terminal Emulator Command - PDF Integration Command - FTP Command - PGP Command - Object Cloning Command - Error Handling Command - Manage Windows Control Command - Workflow Designer

- Report Designer.

TEXT BOOKS:

1. Learning Robotic Process Automation: Create Software robots and automate business processes with the leading RPA tool - UiPath: Create Software robots. with the leading RPA tool – UiPath Kindle Edition)

REFERENCE BOOKS:

1. Robotic Process Automation a Complete Guide - 2020 Edition Kindle Edition.

ELECTRONIC RESOURCES:

1. <https://www.uipath.com/academy>
2. <https://www.coursera.org/learn/automation-techniques-in->
3. <https://www.mygreatlearning.com/academy/learn-for-free/courses/robotic-process-automation>
4. <https://www.udemy.com/course/uipath-rpa-tool-description-with-demos>

MATERIALS ONLINE:

1. Course template
2. Tutorial question bank
3. Tech talk and Concept Video topics
4. Open-ended experiments
5. Definitions and terminology
6. Assignments
7. Model question paper – I
8. Model question paper – II
9. Lecture notes
10. E-Learning Readiness Videos (ELRV)

