



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		
2425824	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 computer systems, operating systems, file management, and software applications.								

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 fundamental concepts, architecture, and applications of Robotic Process Automation (RPA).
2. To learn the features and components of RPA platforms, including Web Control Room and Bot Creator tools.
3. To develop practical skills in creating, managing, and deploying software bots for automating business processes.
4. To study automation techniques using recorders, task editors, variables, workflows, and command libraries in RPA tools.
5. To analyze and implement automated solutions for real-world organizational tasks using robotic process automation technologies.

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

1. Demonstrate the usage of Automation in the Enterprise Platform to create bots based on typical RPA use cases.
2. Explore and navigate the Web Control Room and Client interface, including dashboard components, task activities, both management, and credential handling.
3. Analyze and manage device configurations, workload queues, audit logs, and administrative settings within the Web Control Room, including API exposure and client setup.
4. Apply bot development techniques using recorders, task editors, and command libraries to efficiently automate business processes.
5. Implement advanced functionalities using specialized commands such as PDF integration, FTP, PGP, error handling, and design workflows and reports for end-to-end automation.

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)

