



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G. Chidambaram Nadar - C. Nagammal Campus
S.P.G.C. Nagar, K. Vellakulam - 625 701 (Near VIRUDHUNAGAR).

Department of Computer Science and Engineering

Industry certified Value Added Course

on

“Low Code No Code-N8N”

14.07.2025 to 19.07.2025

45 HOURS

Objectives

- To understand the overview of workflow automation in LCNC.
- To gain knowledge about Webhooks & Trigger setup environment.
- To identify the various development tools used in Gemini API Integration.
- To acquire knowledge about LCNC application with Email Bot.
- To learn about Telegram chat bot Development.

UNIT I Introduction to Low Code No Code (LCNC) Platforms

9 Hours

Introduction to automation and AI- Introduction to N8N UI and workflow building blocks - Build: Your first automated workflow -characteristics of Low Code / No Code tools-Benefits and limitations of LCNC development-Comparison of popular LCNC platforms-Use cases in business automation and integration-Overview of workflow automation

UNIT II Webhooks & Trigger Setup

9 Hours

Introduction to n8n-Architecture and key features of n8n-Installation methods (Cloud vs. Local)- n8n user interface: Workflow canvas, nodes, credentials-Creating your first simple workflow- Understand triggers: webhook, cron, form submission- Connect external tools to trigger workflows-Build: Form-triggered email responder

UNIT III Gemini API Integration

9 Hours

Introduction to Gemini API and Gemini Pro via Google AI Studio- Setting up Google Cloud and API keys- Gemini API documentation and developer tools- Understanding endpoints and authentication mechanisms- Basic Gemini API call using REST or Python- How to call Gemini from n8n - Design effective prompts - Handling JSON responses and parsing output- Error handling and rate limit management- Embedding Gemini in bots- Deploying apps using platforms like Render, Replit, or Firebase

UNIT IV **9 Hours**
Excel to Email Bot
 Introduction to Work flow automation - Overview of use cases: Email alerts, report sending, CRM updates
 - Working with Excel Data- Understanding Excel file structures- Reading and parsing Excel files- Data filtering and validation techniques-Bot implementation using Tools-Project Development and Deployment

UNIT-V **9 Hours**
Telegram Chatbot Development
 Introduction to Chatbots and Telegram API - Setting Up the Bot Environment - Message Handling and User Interaction - Advanced Features and APIs - Create and connect a Telegram bot - Build: Live Telegram Chatbot
 -
 Enable AI responses using OpenAI with n8n - Capstone project development and demo - Real-time workflow testing and feedback

COURSE OUTCOMES (COs):

On successful completion of this course, the students will be able to:

CO	Course Outcome	Knowledge Level
CO1	Apply the N8N architecture and installation methods.	K3
CO2	Build Webhook Systems using a form-triggered email responder .	K3
CO3	Identify the various tools used in Gemini API , Gemini Pro and Google AI Studio	K3
CO4	Develop and deploy the projects using an Email Bot.	K3
CO5	Construct real time workflow tests and a capstone project using a telegram Chatbot.	K3

PROGRAMME SPECIFIC OUTCOMES (PSOs):

PSO1: Professional Skills: The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexity.

PSO2: Problem - Solving Skills: The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product for business success.

CO - PO - PSO MAPPING

Course Name	CO. No.	POs										PSOs		
		1	2	3	4	5	6	7	8	9	10	11	1	2
N8N-LCNC	CO1	M	M	M	-	L	L	-	M	-	M	M	M	M
	CO2	M	M	M	-	L	L	-	M	-	M	M	M	M
	CO3	M	M	M	-	L	L	-	M	-	M	M	M	M
	CO4	M	M	M	-	L	L	-	M	-	M	M	M	M
	CO5	M	M	M	-	L	L	-	M	-	M	M	M	M

H - High, M - Moderate, L - Low

SDG MAPPING

VAC TITLE	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 14	SDG 15	SDG 16	SDG 17
Low Code No Code-N8N			Y	Y	Y			Y	Y							Y	Y

Basmitha
Trainer
 Ms.B.Sasmitha
 Bhaskaran
 Founder-CEO

Divya
Course Coordinator
 Mrs.T.Divya,AP-CSE

Athilakshmi
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 Mrs.S.Athilakshmi
 AP-CSE

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