

# ANL505 Hyperautomation

**Level:** 5

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JULY

## Synopsis:

ANL505 Hyperautomation aims to equip students with practical knowledge and skills using workflow automation tools, process discovery, process mining, inter-business process management system, low-code, business rules engine, optical character recognition (OCR) with robotic process automation (RPA), and machine learning (ML) in data acquisition and analysis. Students will learn essential concepts, skills, and techniques in machine learning, JavaScript and Python to design and implement workflows in a scalable and reproducible manner. By the end of this course, students will be competent in using RPA and ML for data acquisition, analysis, and automated reporting.

## Topics:

- Introduction to hyperautomation
- Megatrends in hyperautomation and robotics
- Introduction to Software-as-a-Service
- Essentials of Configuration Management Database (CMDB)
- Introduction to robotic process automation (RPA)
- Use of optical character recognition (OCR) capabilities
- Essential Python programming
- Python debugging and logging best practices
- Introduction to artificial intelligence and neural networks
- Essential mathematics for neural networks
- Implementing neural networks and machine learning
- Evaluating machine learning models

## Learning Outcome:

- Assess hyperautomation approaches based on mega trends and data configuration
- Design data acquisition types and methods to populate CMDB with enterprise level tools
- Formulate possible machine learning solutions for different problems
- Evaluate performance of machine learning models
- Create table structures, workflow, and front-end scripts to meet automation needs with enterprise grade tools
- Construct scripted workflows for automation with enterprise grade tools

## Assessment Strategies (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	PRE-COURSE QUIZ 1	10
	TUTOR-MARKED ASSIGNMENT 1	30

Overall Continuous Assessment	PARTICIPATION 1	10
Overall Examinable Components	ECA	50
<b>Total</b>		<b>100</b>