



Khentawas, Farrukh Nagar, Gurugram, Haryana  
Approved by: All India Council for Technical Education (AICTE), New Delhi  
Affiliated to: Gurugram University, Gurugram

**DEPARTMENT OF Computer Science and Engineering-Artificial Intelligence &  
Machine Learning**

**ACADEMIC YEAR 2023-24**

**SEMESTER VIth**

**Statistical Machine Learning (PCC-AI-302G)**

Course Outcome(CO)	DetailsofCourseOutcomes
(C01)	Acquire the knowledge on Statistical machine learning techniques.
(C02)	Acquire the ability to build model based on logistic regression and random forest techniques
(C03)	Understand the basic ideas of probability and work on probabilistic approaches like Naïve Bayes, Bayes Theorem
(C04)	Apply the knowledge of Kernel functions in practical applications
(C05)	Apply the knowledge of K- means clustering on real world examples
(C06)	Acquire the knowledge on using PCA and SVD with Scikit-learn

**Principles of Artificial Intelligence (PCC-AI-304G)**

Course Outcome(CO)	DetailsofCourseOutcomes
(C01)	Formulate a problem and build intelligent agents
(C02)	Apply appropriate searching techniques to solve a real world problem
(C03)	Analyze the problem and infer new knowledge using suitable knowledge representation schemes
(C04)	Develop planning and apply learning algorithms on real world problems
(C05)	Design an expert system and implement natural language processing techniques
(C06)	Implement advance techniques in Artificial Intelligence

### **Data Mining and Analytics (PCC-DS-303G)**

<b>CourseOutcome(CO)</b>	<b>DetailsofCourseOutcomes</b>
<b>(CO1)</b>	Gain knowledge about the concepts of Data Mining
<b>(CO2)</b>	Understand and Apply Association rule mining techniques
<b>(CO3)</b>	Understand and Apply various Classification algorithms
<b>(CO4)</b>	Gain knowledge on the concepts of Cluster Analysis
<b>(CO5)</b>	Gain knowledge on Outlier analysis techniques
<b>(CO6)</b>	Understand the importance of applying Data mining concepts in different domains

### **Data Science with R Programming (PCC-AI-306G)**

<b>CourseOutcome(CO)</b>	<b>DetailsofCourseOutcomes</b>
<b>(CO1)</b>	Able to comprehend basic methods of processing data from real world problems
<b>(CO2)</b>	Able to convert data into actionable insights
<b>(CO3)</b>	Build clustering and classification models using R environment
<b>(CO4)</b>	Apply statistical techniques for evaluation
<b>(CO5)</b>	Analyze and validate the models using appropriate performance metrics
<b>(CO6)</b>	Present the results using effective visualization techniques

### **Project-I (LC-AI-342G)**

<b>CourseOutcome(CO)</b>	<b>DetailsofCourseOutcomes</b>
<b>(CO1)</b>	Design a system / process or gain research insight into a defined problem as would be encountered in engineering practice taking into consideration its impact on global, economic, environmental and social context.

### **Advanced Programming Practice (PCC-DS-310G)**

<b>CourseOutcome(CO)</b>	<b>DetailsofCourseOutcomes</b>
<b>(CO1)</b>	Create Programs using structured, procedural and object oriented programming paradigms
<b>(CO2)</b>	Create Programs using event driven, declarative and imperative programming paradigms
<b>(CO3)</b>	Create Programs using parallel, concurrent and functional programming paradigms
<b>(CO4)</b>	Create Programs using logic, dependent type and network programming paradigms
<b>(CO5)</b>	Create Programs using symbolic, automata based and graphical user interface programming paradigms
<b>(CO6)</b>	Create Programs using different programming paradigms using python language

### **Business Intelligence & Analytics (PCC-DS-312G)**

<b>CourseOutcome(CO)</b>	<b>DetailsofCourseOutcomes</b>
<b>(CO1)</b>	Understand the fundamental of Business Intelligence and to design a customized solution
<b>(CO2)</b>	Familiarize on the concepts, techniques and reporting methods of descriptive analytics and predictive analytics
<b>(CO3)</b>	Explore the methods used to analyze speech and text and implement optimized search engines
<b>(CO4)</b>	Design and implement Decision Support systems
<b>(CO5)</b>	Familiarize on the processes needed to develop, report, and analyze business data.

### **Nature Inspired Computing Techniques (PEC-AI-308G)**

<b>CourseOutcome(CO)</b>	<b>DetailsofCourseOutcomes</b>
<b>(CO1)</b>	Illustrate the basic concepts of Swarm Intelligence processes
<b>(CO2)</b>	Examine the principle of Immuno computing techniques
<b>(CO3)</b>	Skills for planning, estimating, and resourcing for Natural design considerations
<b>(CO4)</b>	Manage the scope changes of nature inspired techniques which influence computing
<b>(CO5)</b>	Ability to identify optimization Techniques as a means to provide functionality and value to apply context in specific case studies
<b>(CO6)</b>	Ability to understand the needs and familiarize the DNA Computing

### **Predictive Analytics Essentials (PEC-DS-315G)**

<b>CourseOutcome(CO)</b>	<b>DetailsofCourseOutcomes</b>
<b>(CO1)</b>	Ability to develop and use various quantitative and classification predictive models based on various regression and decision tree methods
<b>(CO2)</b>	Ability to select the appropriate method for predictive analysis
<b>(CO3)</b>	Ability to search, identify, gather and pre-process data for the analysis.
<b>(CO4)</b>	Ability to formulate predictive analytics questions.

### UI/UX Design (PEC-DS-316G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(C01)	Identify various color models for design
(C02)	Create the design as per the design law
(C03)	Construct the task for requirement gathering
(C04)	Create wire frames and prototypes
(C05)	Create the usability constraints and accessibility
(C06)	Construct real-time applications using real -time programming applications

### Intelligent Machining (PEC-AI-310G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(C01)	Acquire the knowledge on the fundamentals of Artificial intelligence and its problem solving approaches
(C02)	Acquire the knowledge on fundamentals of Intelligent Machining and machining process
(C03)	Acquire knowledge on the design of Intelligent Systems and RTOS
(C04)	Acquire knowledge on computational methods and optimization
(C05)	Apply the knowledge on Real time applications