

# TRAINING ON ARTIFICIAL INTELLIGENCE

## **PACKAGE D:** AI FOR ADVANCED TECHNOLOGIST

FACULTY OF ARTIFICIAL INTELLIGENCE UNIVERSITI TEKNOLOGI MALAYSIA

## Instructors

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BIL	COURSES	LEVEL	DURATION (DAYS)	PRICE PER PAX (RM)	MINIMUM PARTICIPATI ON
1.	Ensuring Ethical AI Practices in Public Service	Basic	2	25,000	15
2.	Al using Python (MLDS SIG 2)	Basic	2		
3.	Machine Learning for Beginners (MLDS SIG 3)	Basic	2		
4.	Data Analytics Modelling using Al	Intermediate	2		
5.	Executive - Robotics: Intermediate	Intermediate	2		
6.	Python For Machine Learning	Intermediate	2		
7.	Computer Vision and Natural Language Processing (MLDS SIG 4)	Intermediate	2		
8.	Deep Learning	Intermediate	2		
9.	Data Processing and Visualization with Tableau	Intermediate	2		
10.	Advanced AI System Deployment	Advanced	5		
11.	Edge Computing	Advanced	5		
12.	Advanced UX/UI Strategies Designing Complex Digital Experiences	Advanced	5		

## **ENSURING ETHICAL AI PRACTICES IN PUBLIC SERVICE**



SPEAKER : UTM INSTRUCTORS DURATION OF SHARING SESSION : 2 DAYS MEDIUM : Face to Face

## **COURSE SYNOPSIS**

The course "Ensuring Ethical AI Practices in Public Service" focuses on the ethical considerations and best practices required for implementing AI technologies in the public sector. Participants will explore the challenges and responsibilities associated with deploying AI systems that impact public services, including issues such as fairness, transparency, accountability, and bias mitigation. The course provides frameworks for evaluating ethical risks and ensuring that AI-driven solutions align with societal values, legal standards, and the public interest. By the end of the course, learners will be equipped with the knowledge to promote responsible AI use. safeguarding trust and ensuring equitable outcomes for all stakeholders in the public sector.

#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

2 DAYS

## OBJECTIVE

#### Course Objectives:

1. To gather knowledge on the ethical principles and frameworks governing AI use in public service, enabling participants to understand the importance of fairness, transparency, and accountability in AIdriven initiatives.

2. To develop skills in identifying and mitigating ethical risks associated with AI deployment, including bias detection, privacy concerns, and decision-making processes, ensuring that AI technologies are applied responsibly.

3. To explore strategies for fostering ethical AI practices, equipping participants with tools to implement governance mechanisms and promote compliance with ethical standards, while maintaining public trust and ensuring equitable outcomes in AI applications.

#### **COURSE FEE:**

## AI USING PYTHON (MLDS SIG 2)



SPEAKER :						
XX						
DURATION OF SHARING SESSION :						
2 DAYS						
MEDIUM :						
Face to Face						

## **COURSE SYNOPSIS**

This course focuses on the implementation of artificial intelligence (AI) techniques using Python, one of the most popular programming languages for data science and machine learning. Participants will learn how to utilize key libraries such as TensorFlow, Keras, and Scikit-learn to develop machine learning models and AI applications. The course covers essential topics, including data manipulation. model training, evaluation, and deployment. Through hands-on projects and practical exercises, learners will gain experience in applying AI algorithms to real-world problems using Python. By the end of the course, participants will have the skills necessary to create and implement AI solutions effectively.

#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

2 DAYS

## OBJECTIVE

#### Course Objectives:

1. To gather knowledge of fundamental AI concepts and techniques, focusing on how Python can be utilized as a programming language for implementing machine learning and data science algorithms.

2. To develop hands-on skills in using Python libraries, such as NumPy, Pandas, and Scikit-learn, enabling participants to preprocess data, build machine learning models, and evaluate their performance effectively.

3. To explore the application of AI in solving realworld problems through project-based learning, allowing learners to implement AI solutions using Python in various domains, such as healthcare, finance, or marketing.

#### **COURSE FEE:**

## **MACHINE LEARNING FOR BEGINNERS (MLDS SIG 3)**



SPEAKER : UTM INSTRUCTORS DURATION OF SHARING SESSION : 2 DAYS MEDIUM : Face to Face

## **COURSE SYNOPSIS**

The "Machine Learning for Beginners (MLDS SIG 3)" course in Artificial Intelligence introduces foundational concepts in machine learning, focusing on the basic principles, techniques, and algorithms that beginners need to grasp. The course emphasizes practical applications, offering a gateway for those new to the field to understand how machine learning can be used to solve realworld problems. Through hands-on projects and exercises, participants learn to work with data, build models, and evaluate machine learning systems in various business and technology contexts.

#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

2 DAYS

## OBJECTIVE

#### Course Objectives:

1. To introduce fundamental concept by provide learners with a foundational understanding of machine learning principles, focusing on key techniques and algorithms.

2. To apply equip students with the skills to apply machine learning models to solve simple real-world problems through hands-on projects and exercises.

3. To evaluated teach participants how to assess and evaluate machine learning models, helping them understand performance metrics and their significance in real-world applications.

#### **COURSE FEE:**

## DATA ANALYTICS MODELLING USING AI

## **COURSE SYNOPSIS**

The course "Intermediate: Data Analytics Modelling using AI in Artificial Intelligence" is designed for individuals seeking to enhance their skills in data analytics through the application of artificial intelligence techniques. Participants will explore advanced data modeling concepts, including predictive analytics, statistical modeling, and machine learning algorithms. The course emphasizes hands-on experience with real datasets, enabling learners to build, evaluate, and optimize models that drive actionable insights. Through case studies and practical exercises, participants will gain a comprehensive understanding of how to leverage AI tools for data analysis, empowering them to make informed decisions and improve business outcomes. By the end of the course, learners will be equipped with the skills needed to apply AI-driven data analytics in various contexts, enhancing their analytical capabilities and decision-making processes.



#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

**SPEAKER:** 

UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM:** 

Face to Face

### OBJECTIVE

Course Objectives:

1. To deepen understanding of advanced data analytics modeling techniques, enabling participants to explore and apply various AI algorithms and methodologies for predictive analytics and data-driven decision-making.

2. To develop practical skills in using AI tools and programming languages for building, evaluating, and optimizing data models, equipping learners to work effectively with real datasets in different domains.

3. To explore best practices for interpreting and communicating data insights, helping participants to present their findings effectively to stakeholders and drive strategic decisions based on data analytics.

#### **COURSE FEE:**

**REFER TO THE PACKAGE PRICE** 

2 DAYS

## **EXECUTIVE - ROBOTICS: INTERMEDIATE**

## **COURSE SYNOPSIS**

The course "Executive - Robotics: Intermediate in Artificial Intelligence" is designed for professionals looking to expand their knowledge and expertise in robotics within the context of artificial intelligence. This course delves into the integration of AI technologies in robotic systems, focusing on advanced topics such as perception, autonomy, and decision-making processes in robotics. Participants will explore real-world applications, including industrial automation, service robots, and autonomous vehicles, while examining case studies that highlight the impact of AI on enhancing robotic capabilities. Through hands-on projects and collaborative discussions, learners will gain the skills necessary to lead and manage AI-driven robotics initiatives, ultimately positioning themselves as innovators in the rapidly evolving field of robotics.



#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

2 DAYS

#### **SPEAKER:**

UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM :** 

Face to Face

## **OBJECTIVE**

Course Objectives:

1. To deepen understanding of advanced robotics concepts and AI integration, enabling participants to analyze and assess the capabilities of AI-driven robotic systems in various applications.

2. To develop practical skills in designing and implementing robotics solutions that leverage AI technologies for enhanced perception, decisionmaking, and autonomy, equipping learners to drive innovation in their organizations.

3. To explore the ethical, operational, and strategic considerations involved in deploying robotics in the workforce, helping participants navigate challenges and opportunities associated with the adoption of AI-powered robotics in industry.

#### **COURSE FEE:**

## **PYTHON FOR MACHINE LEARNING**

## **COURSE SYNOPSIS**

The course "Intermediate: Python for Machine Learning in Artificial Intelligence" is designed for individuals seeking to enhance their programming skills specifically for machine learning applications using Python. Participants will explore key libraries and frameworks such as NumPy, Pandas, Scikit-learn, and TensorFlow, focusing on their practical applications in building, training, and evaluating machine learning models. The course covers essential topics, including data preprocessing, feature engineering, model selection, and hyperparameter tuning. Through hands-on projects and real-world examples, learners will gain a solid understanding of how to implement machine learning algorithms in Python, enabling them to tackle complex data-driven challenges. By the end of the course, participants will be equipped with the skills necessary to leverage Python effectively for machine learning tasks in various domains.



#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

**SPEAKER:** 

UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM:** 

Face to Face

## **OBJECTIVE**

Course Objectives:

1. To deepen understanding of machine learning concepts and algorithms, enabling participants to effectively apply Python programming techniques to develop and implement machine learning models.

2. To develop practical skills in using key Python libraries such as NumPy, Pandas, Scikit-learn, and TensorFlow for data manipulation, model training, and evaluation, equipping learners to handle various machine learning tasks.

3. To explore best practices in data preprocessing and feature engineering, helping participants enhance model performance through effective data preparation and transformation techniques in Python.

#### **COURSE FEE:**

**REFER TO THE PACKAGE PRICE** 

2 DAYS

## COMPUTER VISION AND NATURAL LANGUAGE PROCESSING (MLDS SIG 4)

## **COURSE SYNOPSIS**

The course "Intermediate: Computer Vision and Natural Language Processing (MLDS SIG 4) in Artificial Intelligence" delves into two prominent subfields of AI: computer vision and natural language processing (NLP). Participants will explore the theoretical foundations and practical applications of these technologies, focusing on how they can be integrated to solve complex problems. The course covers key topics such as image recognition, object detection, text analysis, and sentiment analysis, providing hands-on experience with relevant algorithms and frameworks. Through case studies and projects, learners will gain insights into the challenges and best practices in deploying computer vision and NLP solutions in real-world scenarios. By the end of the course, participants will be equipped with the skills to develop and implement advanced AI applications that leverage both visual and textual data.



#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

2 DAYS

#### **SPEAKER:**

#### UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM :** 

Face to Face

## OBJECTIVE

Course Objectives:

1. To deepen understanding of the fundamental concepts and techniques in computer vision and natural language processing, enabling participants to analyze and interpret visual and textual data effectively.

2. To develop practical skills in implementing and evaluating algorithms for image recognition, object detection, and text analysis, equipping learners to create integrated AI solutions that address realworld challenges.

3. To explore best practices for deploying computer vision and NLP applications, helping participants understand the ethical considerations, performance metrics, and deployment strategies necessary for successful implementation in various domains.

#### **COURSE FEE:**

## **DEEP LEARNING**

## **COURSE SYNOPSIS**

The course "Intermediate: Deep Learning in Artificial Intelligence" provides participants with a comprehensive exploration of deep learning techniques and their applications in AI. Focusing on neural networks, the course covers essential topics such as convolutional neural networks (CNNs), recurrent neural networks (RNNs), and generative adversarial networks (GANs). Participants will engage in hands-on projects that allow them to implement and fine-tune deep learning models using popular frameworks like TensorFlow and PyTorch. Through realworld case studies, learners will gain insights into the practical challenges and best practices in deploying deep learning solutions across various domains, including computer vision, natural language processing, and speech recognition. By the end of the course, participants will be equipped with the skills to design, train, and evaluate deep learning models for a wide range of AI applications.



#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

**SPEAKER:** 

#### UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM:** 

Face to Face

## OBJECTIVE

Course Objectives:

1. To deepen understanding of deep learning architectures and methodologies, enabling participants to analysed and select appropriate neural network models for various AI applications.

2. To develop practical skills in implementing, training, and fine-tuning deep learning models using frameworks such as TensorFlow and PyTorch, equipping learners to solve complex problems in domains like computer vision and natural language processing.

3. To explore best practices for evaluating and optimizing deep learning models, helping participants understand performance metrics and techniques for improving model accuracy and generalization in realworld scenarios.

#### **COURSE FEE:**

**REFER TO THE PACKAGE PRICE** 

2 DAYS

## DATA PROCESSING AND VISUALIZATION WITH TABLEAU

## **COURSE SYNOPSIS**

The course "Intermediate: Data Processing and Visualization with Tableau in Artificial Intelligence" focuses on enhancing participants' skills in data processing and visualization using Tableau, a powerful data visualization tool. Participants will learn advanced techniques for cleaning, transforming, and preparing data for analysis, ensuring data quality and relevance. The course covers the creation of interactive dashboards and visualizations that effectively communicate insights derived from data, emphasizing best practices for design and storytelling. Through hands-on exercises and real-world case studies, learners will gain practical experience in using Tableau to analyze complex datasets, making data-driven decisions that support AI initiatives. By the end of the course, participants will be equipped with the skills to leverage Tableau for impactful data visualization and analytics in various professional contexts.



#### WHO SHOULD ATTEND:

Government Employee

#### DURATION

**SPEAKER:** 

UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM:** 

Face to Face

## OBJECTIVE

Course Objectives:

1. To deepen understanding of data processing techniques in Tableau, enabling participants to clean, transform, and prepare datasets for effective analysis and visualization.

2. To develop practical skills in creating advanced visualizations and interactive dashboards, equipping learners to communicate complex data insights clearly and effectively to various audiences.

3. To explore best practices in data storytelling and visualization design, helping participants enhance their ability to convey meaningful narratives and drive data-informed decisionmaking in AI-related projects.

#### **COURSE FEE:**

**REFER TO THE PACKAGE PRICE** 

2 DAY

## **ADVANCED AI SYSTEM DEPLOYMENT**

**SPEAKER:** 

UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM:** 

Face to Face

## **OBJECTIVE**

Course Objectives:

1. To deepen understanding of advanced deployment strategies for AI systems, enabling participants to effectively transition machine learning models from development to production environments while ensuring scalability and reliability.

2. To develop practical skills in utilizing cloud services, containerization, and orchestration tools, equipping learners to deploy and manage AI applications in various environments efficiently.

3. To explore best practices for monitoring and maintaining AI systems post-deployment, helping participants implement performance evaluation metrics and compliance measures to ensure the ongoing effectiveness and ethical use of AI technologies.

## **COURSE SYNOPSIS**

The course "Advanced: Advanced AI System Deployment in Artificial Intelligence" focuses on the comprehensive strategies and methodologies for effectively deploying AI systems in real-world environments. This advanced course covers critical topics such as model optimization, scalability, and performance monitoring, ensuring that participants understand the nuances of transitioning from development to deployment. Participants will engage in hands-on projects that involve deploying machine learning models using cloud services, containerization technologies like Docker, and orchestration tools such as Kubernetes. Through case studies and practical exercises, learners will gain insights into best practices for maintaining and updating AI systems post-deployment, as well as ensuring compliance with ethical standards and regulatory requirements. By the end of the course, participants will be equipped with the skills necessary to successfully deploy, manage, and optimize advanced AI systems in diverse applications and industries.



#### WHO SHOULD ATTEND:

Government Employee

#### **DURATION:**

**COURSE FEE:** 

## **EDGE COMPUTING**

**SPEAKER:** 

UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM:** 

Face to Face

## OBJECTIVE

Course Objectives:

1. To deepen understanding of edge computing architectures and their integration with AI technologies, enabling participants to identify optimal deployment strategies for AI models in edge environments.

2. To develop practical skills in designing and implementing AI algorithms on edge devices, equipping learners to enhance real-time data processing and decision-making capabilities in various applications.

3. To explore best practices for ensuring data security, privacy, and compliance in edge computing scenarios, helping participants navigate the unique challenges associated with deploying AI at the edge.

## **COURSE SYNOPSIS**

The course "Advanced: Edge Computing in Artificial Intelligence" delves into the integration of edge computing technologies with artificial intelligence to enhance processing capabilities and data management at the edge of networks. This advanced course covers essential topics such as edge device architecture, real-time data processing, and the deployment of AI models on edge devices, focusing on applications in IoT, smart cities, and autonomous systems. Participants will engage in hands-on projects that explore the development and optimization of AI algorithms for edge computing environments, emphasizing efficiency and low-latency operations. Through case studies and practical exercises, learners will gain insights into the challenges and best practices of implementing edge AI solutions, including security considerations and data privacy. By the end of the course, participants will be equipped with the knowledge and skills to design and deploy advanced AI applications that leverage edge computing to deliver immediate insights and improve decision-making in real-time scenarios.



#### WHO SHOULD ATTEND:

Government Employee

#### **DURATION:**

#### **COURSE FEE:**

## ADVANCED UX/UI STRATEGIES DESIGNING COMPLEX DIGITAL EXPERIENCES

#### **SPEAKER:**

UTM INSTRUCTORS

#### **DURATION OF SHARING SESSION :**

2 DAYS

**MEDIUM:** 

Face to Face

## OBJECTIVE

**Course Objectives:** 

1. To deepen understanding of advanced UX/UI design principles and methodologies, enabling participants to create intuitive and engaging user experiences for complex AI-driven applications.

2. To develop practical skills in conducting user research and usability testing, equipping learners to gather insights and feedback that inform design decisions and improve user interaction with intelligent systems.

3. To explore innovative strategies for integrating AI features into UX/UI designs, helping participants enhance usability, accessibility, and overall satisfaction in digital experiences.

## **COURSE SYNOPSIS**

The course "Advanced: Advanced UX/UI Strategies in Designing Complex Digital Experiences in Artificial Intelligence" focuses on equipping participants with the knowledge and skills needed to create sophisticated user experiences in AI-driven applications. This advanced course delves into key topics such as user-centered design principles, interaction design, and the integration of AI features that enhance usability and engagement. Participants will explore advanced methodologies for conducting user research, prototyping, and usability testing, enabling them to effectively address the complexities of user interactions with intelligent systems. Through hands-on projects and case studies, learners will gain practical experience in designing and iterating complex digital interfaces that leverage AI to meet user needs and expectations. By the end of the course, participants will be empowered to implement advanced UX/UI strategies that foster seamless interactions and improve the overall user experience in AI applications.



WHO SHOULD ATTEND:

Government Employee

#### **DURATION:**

**COURSE FEE:**