European IT Certification Curriculum Self-Learning Preparatory Materials

EITC/AI/ARL

Advanced Reinforcement Learning

This document constitutes European IT Certification curriculum self-learning preparatory material for the EITC/AI/ARL Advanced Reinforcement Learning programme.

This self-learning preparatory material covers requirements of the corresponding EITC certification programme examination. It is intended to facilitate certification programme's participant learning and preparation towards the EITC/AI/ARL Advanced Reinforcement Learning programme examination. The knowledge contained within the material is sufficient to pass the corresponding EITC certification examination in regard to relevant curriculum parts. The document specifies the knowledge and skills that participants of the EITC/AI/ARL Advanced Reinforcement Learning certification programme should have in order to attain the corresponding EITC certificate.

Disclaimer

This document has been automatically generated and published based on the most recent updates of the EITC/AI/ARL Advanced Reinforcement Learning certification programme curriculum as published on its relevant webpage, accessible at:

https://eitca.org/certification/eitc-ai-arl-advanced-reinforcement-learning/

As such, despite every effort to make it complete and corresponding with the current EITC curriculum it may contain inaccuracies and incomplete sections, subject to ongoing updates and corrections directly on the EITC webpage. No warranty is given by EITCI as a publisher in regard to completeness of the information contained within the document and neither shall EITCI be responsible or liable for any errors, omissions, inaccuracies, losses or damages whatsoever arising by virtue of such information or any instructions or advice contained within this publication. Changes in the document may be made by EITCI at its own discretion and at any time without notice, to maintain relevance of the self-learning material with the most current EITC curriculum. The self-learning preparatory material is provided by EITCI free of charge and does not constitute the paid certification service, the costs of which cover examination, certification and verification procedures, as well as related infrastructures.

TABLE OF CONTENTS

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: INTRODUCTION
TOPIC: INTRODUCTION TO REINFORCEMENT LEARNING

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - INTRODUCTION - INTRODUCTION TO REINFORCEMENT LEARNING - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: TRADEOFF BETWEEN EXPLORATION AND EXPLOITATION
TOPIC: EXPLORATION AND EXPLOITATION

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - TRADEOFF BETWEEN EXPLORATION AND EXPLOITATION - EXPLORATION AND EXPLOITATION - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: MARKOV DECISION PROCESSES
TOPIC: MARKOV DECISION PROCESSES AND DYNAMIC PROGRAMMING

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - MARKOV DECISION PROCESSES - MARKOV DECISION PROCESSES AND DYNAMIC PROGRAMMING - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: PREDICTION AND CONTROL
TOPIC: MODEL-FREE PREDICTION AND CONTROL

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - PREDICTION AND CONTROL - MODEL-FREE PREDICTION AND CONTROL - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: DEEP REINFORCEMENT LEARNING
TOPIC: FUNCTION APPROXIMATION AND DEEP REINFORCEMENT LEARNING

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - DEEP REINFORCEMENT LEARNING - FUNCTION APPROXIMATION AND DEEP REINFORCEMENT LEARNING - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: DEEP REINFORCEMENT LEARNING
TOPIC: POLICY GRADIENTS AND ACTOR CRITICS

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - DEEP REINFORCEMENT LEARNING - POLICY GRADIENTS AND ACTOR CRITICS - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: DEEP REINFORCEMENT LEARNING
TOPIC: PLANNING AND MODELS

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - DEEP REINFORCEMENT LEARNING - PLANNING AND MODELS - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: DEEP REINFORCEMENT LEARNING
TOPIC: ADVANCED TOPICS IN DEEP REINFORCEMENT LEARNING

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - DEEP REINFORCEMENT LEARNING - ADVANCED TOPICS IN DEEP REINFORCEMENT LEARNING - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: DEEP REINFORCEMENT LEARNING
TOPIC: DEEP REINFORCEMENT LEARNING AGENTS

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - DEEP REINFORCEMENT LEARNING - DEEP REINFORCEMENT LEARNING AGENTS - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: CASE STUDIES
TOPIC: CLASSIC GAMES CASE STUDY

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - CASE STUDIES - CLASSIC GAMES CASE STUDY - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: CASE STUDIES
TOPIC: ALPHAGO MASTERING GO

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - CASE STUDIES - ALPHAGO MASTERING GO - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: CASE STUDIES
TOPIC: ALPHAZERO MASTERING CHESS, SHŌGI AND GO

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - CASE STUDIES - ALPHAZERO MASTERING CHESS, SHŌGI AND GO - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: CASE STUDIES
TOPIC: ALPHAZERO DEFEATING STOCKFISH IN CHESS

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - CASE STUDIES - ALPHAZERO DEFEATING STOCKFISH IN CHESS - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING DIDACTIC MATERIALS
LESSON: CASE STUDIES
TOPIC: APLHASTAR MASTERING STARTCRAFT II

This part of the material is currently undergoing an update and will be republished shortly.

EITC/AI/ARL ADVANCED REINFORCEMENT LEARNING - CASE STUDIES - APLHASTAR MASTERING STARTCRAFT II - REVIEW QUESTIONS:

This part of the material is currently undergoing an update and will be republished shortly.