

Module Specifications

Year/Level: 6
Programme: AI

Module:	Social and Collective Artificial Intel
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Module Code:	6FTC2086
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Module Description:

The aims of this module are to enable students to...

- Understand different ways in which (natural and artificial) intelligence goes beyond single agents.
- Develop theoretical and practical knowledge and understanding of AI systems/agents, and their underlying cognitive and interactional capabilities and skills allowing them to know about and interact with other agents.

Module:	Robotics
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Module Code:	6FTC2091
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Module Description:

The aims of this module are to enable students to:

- Develop knowledge of control architectures for intelligent robotics.
- Gain an understanding of the core elements that underpin the design and implementation of cognitive systems.
- Explore how robot and AI based control architectures can be implemented in an appropriate programming environment.

Module:	Intelligent Adaptive Systems
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Module Code:	6FTC2088
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Module Description:

The aims of this module are to enable students to...

1. Understand the notion of adaptation, its multiple forms, and its roles in natural and artificial intelligence.
2. Develop theoretical and practical knowledge of a variety of Intelligent Adaptive Systems as AI systems.
3. Design, implement and evaluate concrete examples of Intelligent Adaptive Systems.

Module:	Artificial Intelligence Project
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Module Code:	6FTC2089
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Module Description:

The aims of this module are to enable students to...

- Undertake a complex individual project answering a real-world, Artificial Intelligence related problem.
- Plan, undertake and evaluate a practical solution or solutions to an AI problem, designed to extend and studies.

Module:	Advanced Artificial Intelligence
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Module Code:	6FTC2085
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Module Description:

The aims of this module are to enable students to...

1. Develop in-depth theoretical and practical knowledge of complex advanced notions, methods and algorithms of Artificial Intelligence.
2. Understand and implement the algorithms underlying key advanced AI notions, allowing AI systems to

Module:	Software Architecture
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Module Code:	6FTC2084
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Module Description:

This module aims to enable students to understand the different ways to structure large software system patterns.

Module:	Responsible Computing
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Module Code:	6FTC2087
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Module Description:

This module aims to enable students to articulate the social, ethical, and legal issues and commercial risks of computing technologies and the deployment of computer-based systems. Have a detailed awareness of Information Technology (IT) practice. Be able to produce outputs and documentation that demonstrate core principles of ethical design.

Module:	Machine Learning and Neural Computation
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Module Code:	6FTC2090
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Module Description:

This module aims to enable students to understand and apply machine learning techniques and neural networks. Understand and use data visualisation techniques to further analyse data. Understand how computation

Engineering & Computer Sciences

Credits:	15
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Mandatory

ying algorithms, with social cognition and intelligence, i.e., with
ents.

Credits:	15
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Optional

robotic architectures.
ing language.

Credits:	15
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Mandatory

ce.
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Credits:	30
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Mandatory

deepen their knowledge in this specific area relevant to their

Credits:

15

Mandatory

gorithms of (reasoning-based and embodied) Artificial

reason and act in uncertain, complex and dynamic conditions

Credits:

15

Mandatory

is and be able to design systems using common architectural

Credits:

15

Mandatory

isks together with the opportunities inherent in the use of
the professional issues around current computing and
compliance with legal, ethical, and professional standards and

Credits:

15

Optional

networks to analyse both labelled and unlabelled data.
al models can capture some aspects of brain function.