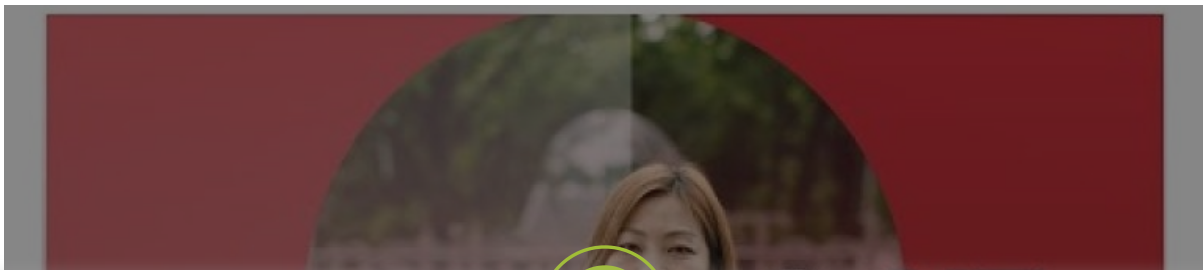


Data Science and AI (DSAI)

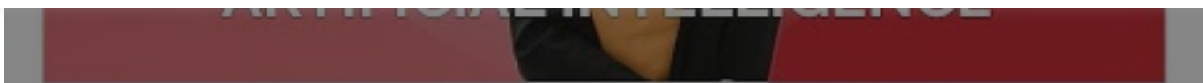
Data Science (DS) is concerned with the extraction of useful knowledge from data sets. It is closely related to the fields of computer science, mathematics, and statistics. It is a relatively new term for a broad set of skills spanning the more established fields of machine learning, data mining, databases, and visualization, along with their applications in various fields. In 2012, Harvard Business Review called data science “The Sexiest Job of the 21st Century”.

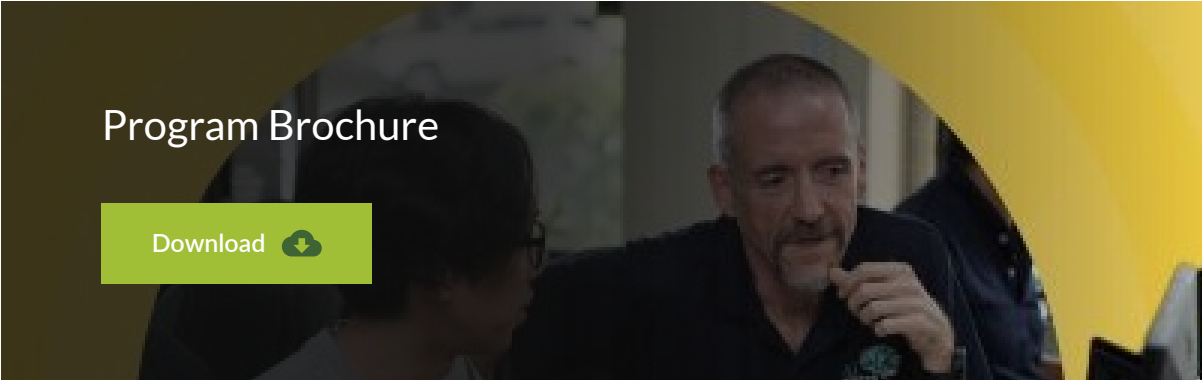
Artificial Intelligence (AI) is the broad field conceived in 1956 as the automation or simulation of human intelligence. AI has two primary “levels”. The first level, “narrow AI”, concerns perception, statistical inference, and actuation, drawing on data science, sensors, and robotics. The second level, sometimes called “artificial general intelligence (AGI)”, is concerned with more complex or flexible reasoning and decision-making in less constrained domains.

The AIT Masters in DS&AI was designed in partnership with the Erasmus+ DS&AI consortium, a group of 15 European and Asian universities with the mission of bringing European-standard advanced education to Asia.



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A banner image showing a man and a woman in a professional setting, with a yellow curved wall in the background. The text 'Program Brochure' is overlaid in white.

Program Brochure

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Research Focus Area

- Data modeling and management
- Machine learning
- Data mining
- Data science
- Sensors
- Robotics
- Software development
- Artificial intelligence
- Big Data and Deep Learning

Preferred background

To study in the DS&AI field, the students should fulfill one of the following backgrounds.

- Computer Science/Computer Engineering/ICT.
- Engineering background with work experience, mathematical skills, and programming skills.
- Diverse backgrounds such as business, finance, or other non-engineering fields. Candidates must take a foundation course in calculus, discrete mathematics, linear algebra, and basic computer programming.

Course Structure

| Master of Science/Master of Engineering in Data Science and Artificial Intelligence.

	Thesis Option	Research Study Option
Required Courses	14 credits (5 courses)	14 credits (5 courses)
Elective Courses	6 credits (2 courses)	18 credits (6 courses)
Institute Wide Courses	3 credits (1 course)	3 credits (1 course)
Seminar: Required Pass/Fail	1 credit	1 credit
Required Internship	0 credit	0 credit
Total Credits Coursework	24 credit	36 credit
Thesis/Research Study Credits	24 credit	12 credit
TOTAL CREDIT REQUIREMENT	48 credit	48 credit

Required courses

- Data Modeling and Management
- Machine Learning
- Business Intelligence and Analytics
- Computer Programming for Data Science and Artificial Intelligence
- Artificial Intelligence: Natural Language Understanding

Elective courses

- Artificial Intelligence: Knowledge Representation and Reasoning
- Computer Vision
- Artificial Intelligence: Problem Solving and Planning

- HCI and Information Visualization
- Recent Trends in Machine Learning
- Multicriteria Optimization and Decision Analysis
- Software Development and Project Management

Minor in DS&AI

| Master of Science/Master of Engineering, Minor in Data Science and Artificial Intelligence.

		Research Study Option
Major Required/Elective Courses	24 credits	
Required Courses in DS&AI	6 credits (2 courses)	• Data Modeling and Management • Machine Learning
Elective Courses in DS&AI	6 credits (2 courses)	Choose 2 courses from 8 options listed: • Business Intelligence and Analytics • Computer Programming for Data Science and Artificial Intelligence • Artificial Intelligence: Problem Solving and Planning • Artificial Intelligence: Knowledge Representation and Reasoning • Computer Vision • Artificial Intelligence: Natural Language Understanding • Recent Trend in Machine Learning • Multicriteria Optimization and Decision Analysis
Total Credits Coursework	36 credits	
Research Study Credits	12 credits	
TOTAL CREDIT REQUIREMENT	48 credits	

Research
Study
Option

Chaklam
Silpasuwanchai
Assistant Professor

Vatcharaporn
Esichaikul
Associate Professor

Siriporn Nanthasing

Sireekant
Thanwongpan

Contact Us

Computer Science & Information Management (CSIM)

Department of ICT

School of Engineering and Technology (SET)

Asian Institute of Technology (AIT)

Phone: +66(0)25245700; +66(0)25245717

Email: dsai@ait.ac.th

Research Focus Area

Preferred background

Course Structure

Concerned Faculty

Staff


Contact Us


Apply Now →

For more information

 +66(0)25245700; +66(0)25245717

 dsai@ait.ac.th

 P.O. Box 4, 58 Moo 9, Km. 42, Paholyothin Highway, Klong Luang, Pathum Thani 12120 Thailand

 (+66) 25245000, (+66) 25160110-44

About

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Research Overview

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Recognized as one of the leading academic institutes in the field of sustainability in Asia, AIT through its research projects, thrives to take-on new research frontiers to build a better knowledge base and facilitate actions towards the sustainable development of the region. With an aim to make a significant and lasting difference to the communities, AIT's research projects are designed to bolster technology development and application, environmental conservation, policy innovation thus promoting sustainability and sustainable development around Asia and beyond.

AIT equipped with over six-decade-long research and academic experience has effectively built and strengthened regional and international partnerships, bridged interdisciplinary teams through its partnerships to address regional and global challenges AIT research is importantly aligned to all 17 SDG's, contributing to the sustainable development of the region, strengthening the knowledge development and business capacity, and supporting communities with their economic development and integration into the global economy. AIT focuses on assisting stakeholders build their capacity to promote sustainability through appropriate technology, relevant and applied research, sustainable frameworks for development and planning, informed policy making and practice applications in the region. AIT's five thematic areas of research are, namely, Climate Change; Smart Communities;

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