INDUSTRIAL ROBOTICS (ON-CAMPUS)(SEPTEMBER START)
(MSc/PgDip/PgCert)

57H67SB1/61H67SVX/62H67SVZ

Duration: MSc 12 months full-time; PgDip 9 months full-time; PgCert 4 months full-time.

Content: The MSc in Industrial Robotics applies core concepts in engineering and computer science to develop an understanding of the design, operation, control and integration of robotics technologies to industrial processes. The program starts by introducing fundamental concepts in robot manipulator arms and mobile robots, bioinspiration, machine learning, simultaneous localization and mapping, swarm robotics and computer vision etc; to enable students develop an overall appreciation of the technical challenges that need to be overcome in successful integration of robots in the industry – with a focus on handling uncertainties in industrial processes.

Students will undertake the project and complete the dissertation in Industrial Robotics which will be defined to be research or industrial relevant.

Candidates shall be required to attend the following designated programme of courses:

FULL TIME ROUTE

Stage 1

PD5006	Getting Started at the University of Aberdeen (0 credit points)
CS5079	Applied Artificial Intelligence (15 credit points)
EG504M	Introduction to Mobile Robotics and Bioinspiration (15 credit points)
EG504N	Localisation and Mapping in the Industrial Domain (15 credit points)
EE501T	Advanced Control Engineering (15 credit points)

Stage 2

EG554V	Kinematics and Dynamics of Industrial Robot Arms (15 credit points)
EG554W	Industrial Robot Programming and Learning (15 credit points)
EG551T	Mathematical Optimisation (15 credit points)
EG555K	Rehabilitation Engineering and Biomechanics (15 credit points)

Stage 3

EG59F1	MSc Individual Project (60 credit points)

Assessment: By a combination of written examination and course work as prescribed for each course. In addition, MSc candidates must submit a dissertation on their individual project and may be required to undergo an oral examination. The Degree of MSc shall not be awarded to a candidate who fails to achieve a CGS Grade of D3 or above in the individual project, irrespective of their performance in other courses.