

Ireland's 'RoboÉireann' robot soccer team wins international RoboCup challenge shield

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Ireland's team RoboÉireann, from Maynooth University, are Aidan Colgan, Shauna Recto, James Petri, Heather Bruen, Andy Lee Mitchell, Dr Ralf Beirig and Dr Rudi Villing. Credit: Maynooth University

Ireland's Robot Soccer team, RoboÉireann from Maynooth University,

are Challenge Shield winners in the RoboCup 2023 Standard Platform League, an international robotics competition held in Bordeaux, France.

Scoring 67-2 across nine matches, RoboÉireann overcame teams from Germany, the Netherlands, Canada, USA, Australia, and Brazil to secure victory.

RoboCup is an international research initiative to advance intelligent autonomous robotics into the middle of the 21st century. Robot soccer is played by teams of five or seven robots each comprising a goalie and outfield players. There are human referees and just like real soccer there is a kick-off, goals, fouls, a sin-bin and eventual send-offs for persistent fouls, and penalty kicks.

The [winning team](#) comprises staff and students from the Departments of Electronic Engineering and Computer Science at Maynooth University and competes in an innovative game where all competitors use identical humanoid [robot](#) hardware but develop software so that the robots play soccer autonomously. RoboÉireann have competed in European and International RoboCup events since 2009.

To achieve this level of autonomy, teams must develop software, create advanced machine learning and AI and efficient real-time systems, so that the robots can understand their surroundings, make decisions, and collaborate in dynamic environments without [human intervention](#) or remote control.

Students gain industry-ready skills in robotics, AI, software, and teamwork with applications in autonomous robotics, assistive technologies for independent living, manufacturing, agriculture, and emergency/disaster area operations, among others.

Commenting on the team's success, Dr. Rudi Villing, team coach and

lecturer in the Department of Electronic Engineering, said, "RoboCup is an invaluable practical environment for [students](#) to learn about the challenges of creating intelligent humanoid robots, to research and develop solutions, and to develop industrially relevant skills."

"The competitive element is a key motivator for them and is unlike anything else. Our great result in this competition builds on our Open Challenge win in the RoboCup 2011 [world championship](#) and third place finish in the RoboCup German Open Replacement Event 2022."

Provided by Maynooth University

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