Call Code: ASS-RIC/50_24

Departmental Faculty	Faculty of Engineering
Research theme	Development of prevention and protection methods for the cybersecurity of intelligent robots
Brief description of the research	The use of intelligent robots is rapidly growing in sectors such as industry, logistics, smart cities, agriculture, and healthcare. These systems, thanks to their ability to interact with humans and operate in complex environments, enhance the efficiency of production processes. However, their advanced nature makes them vulnerable to cybersecurity risks. Composed of mechanical components, sensors, actuators, and control software, robots acquire and process large amounts of sensory data to make autonomous decisions, exposing themselves to attacks that could compromise their security and functionality. The candidate will develop prevention and protection methods against cyber-attacks, identification of the vulnerabilities, cyber-attacks detection, and cybersecurity response strategies, to create resilient systems, ensuring reliable operations and safeguarding both users and the data collected.
Scientific Supervisor	Prof. Roberto Setola
Scientific Disciplinary Sector	IINF-04/A – Systems and Control Engineering
Duration of contract	24 months
Annual gross amount	19.367,00
Economic coverage	La copertura economica è garantita con fondi del progetto "Resilience against Cyber Threats for Plant Integrity and Worker Safety in Process Industry", responsabile scientifico il dott. ing. Luca Faramondi, finanziato dal Ministero dell'Università e della Ricerca nell'ambito del bando "PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2022 Prot. 2022339B79" CUP C53C24000820006, e con fondi UCBM.
Admission qualifications	University degree (as per the Old Italian System) in Electrical Engineering, Electronic Engineering, Management Engineering, Computer Engineering or Specialist/Master's Degree in Automation Engineering (29/S, LM-25), Management Engineering (34/S, LM-31), Computer Engineering (35/S, LM-32) as per Ministerial Decrees No. 509/1999 and No. 270/2004; Research doctorate in the field of Automation Engineering and Computer Science or equivalent qualification obtained abroad.
Language knowledge and skills	Written and spoken English, minimum certified level B1
Date of the interview	**26th February 2025, at 4:00 p.m.** Remote candidates on Microsoft Teams platform

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