



Soggetto: proposta di tirocinio

<i>ID</i>	PTI_IT_GIACOBBE MAURIZIO_07/03/2026 21.59.38
<i>Data</i>	07/03/2026 21.59.38

Supervisore del progetto

<i>Cognome</i>	GIACOBBE
<i>Nome</i>	MAURIZIO
<i>Dipartimento</i>	Dipartimento di Scienze Matematiche e Informatiche, Scienze Fisiche e Scienze della Terra
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Co-Supervisore del progetto

<i>Cognome</i>	
<i>Nome</i>	
<i>Posizione</i>	
<i>Dipartimento</i>	



<i>Laboratorio</i>	
<i>E-mail</i>	
<i>Numero di telefono</i>	

Dettagli del progetto

Titolo	Sustainable Intelligence: Swarm Computing vs. Computing Continuum in Cyber-Physical Systems		
Descrizione dettagliata: As "Cloud Federation" evolves into more autonomous architectures, CPS must balance decentralized collaboration (Swarm Computing) with hierarchical management (Computing Continuum). This project proposes to investigate the trade-offs between local intelligence and global orchestration, focusing on the reduction of data movement costs and carbon footprint. Main activities are the review of distributed architectures and Meta-OS concepts, modeling a CPS use case to compare "Swarm" local processing vs. "Continuum" cloud offloading; a quantitative analysis of energy consumption and operational costs.			
Durata (mesi – max 12)	9		
Durata (ore)	100		
Numero di posizioni aperte	3		

Competenze richieste dal tirocinio

<i>Requisiti tecnici:</i> The Candidate should have a good background in Operating Systems, Virtualization, Containerization, Computer Networks; good C, Python programming skills; ability to run experiments on Linux OS.



<i>Altri requisiti</i>	Scientific writing and documentation; team communication and regular progress reporting; problem-solving mindset; ability to read research papers and implement methodologies.