

COLIVINGLIGURIA

Benefit Company pathway in progress; innovative-startup

SIAVS registration requested

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Internship Project Proposal

Luna Software and Physical
Modeling Internship — Inte-008

Issuer: ColivingLiguria S.r.l.
Inte-008

This Intel form presents an internship project in a compact academic format. It is a project proposal and operational plan: it does not create employment, does not replace a student-specific ConI internship agreement, and does not activate the internship without the required university/promoting-entity paperwork and insurance confirmation.

Project Identification

Form code	Inte-008
Project code	LU-SIM / Inte-008
Project title	Luna Software and Physical Modeling: Python Simulation, Digital Twin, and Validation Toolkit
Track / area	Curricular internship / deep-tech engineering and applied research / Software engineering, scientific computing, physical modeling, data analysis, simulation, and validation
Host entity	ColivingLiguria S.r.l. (Benefit Company and SIAVS pathways in progress)
Supervisor	Simone Testino
Location	Hybrid: Cairo Montenotte project base, Luna documentation system, and remote modeling/software work
Mode	Hybrid or on-site; prototyping and physical testing require supervised on-site sessions
Source documents	Luna engineering notes, PF-LU-001 ESG report, ENAC inquiry, product compliance register, ConI, Attachment G

Student Identification

Candidate	Candidate to be identified
University	Promoting university to be identified
Programme	Computer science, software engineering, data science, applied physics, mechanical/aerospace engineering with coding focus, or equivalent
Academic level	Minimum: final-year Bachelor student with Python; preferred: Master student or thesis-level intern
Student email	To be defined
Academic tutor	To be defined by the promoting university
Insurance / activation	Internship cannot start until INAIL/RC or equivalent accident and civil-liability coverage is confirmed by the promoting entity
Language	English B2 minimum; Italian useful for suppliers and local testing
Status	Open internship proposal

Quantitative Internship Data

Start window	Open after project scope alignment and university/promoting-entity approval
Indicative duration	10–12 weeks standard track; extendable to 3–6 months for thesis, modeling, or prototype work
Expected workload	Approx. 25–30 hours/week
Total expected hours	300 hours
University credits	12 ECTS / CFU equivalent
Credit calculation note	Calculated at 25 hours per ECTS. The final credit value remains subject to the promoting university's rules.
Form date	18 July 2026

Objective

Build or improve Luna's simulation environment for lift, drag, tether forces, thermal behavior, optical coverage, helium permeation, and safety thresholds, producing reproducible tools that can guide engineering decisions.

ConI, Eligibility, and Responsibilities

Standard Luna Intel proposals are intended for students actively enrolled, at the moment of application and activation, in a European university or equivalent recognised higher-education institution. Strong non-standard candidates require separate legal review before acceptance.

Every candidate must read the current ConI Internship Agreement before submitting a final application. ConI governs responsibilities, insurance, academic activation, confidentiality, intellectual-property access, and the distinction between an educational internship and employment.

Minimum Candidate Profile

The candidate must be able to write clean Python and handle scientific assumptions. Preferred skills include NumPy/SciPy, plotting, notebooks, unit tests, numerical methods, object-oriented design, documentation, and physical modeling.

Work Plan

The internship work plan must allocate all expected hours to concrete phases and must match the ECTS/CFU value declared in the quantitative data block.

Phase	Activities	Hours
1	Read software architecture, physical models, lift/buoyancy, thermal, wind, and lighting documents; define model scope.	35
2	Design simulation data structures, assumptions register, parameter schema, and validation cases.	50
3	Implement or refactor models for lift, drag, tether forces, thermal equilibrium, optical lux coverage, and helium loss.	95
4	Create plots, sensitivity analyses, tests, example runs, and engineering decision tables.	65
5	Prepare documentation, repository handover, and model-limitations memo.	35
6	Deliver final simulation report and presentation.	20

Deliverables and Evaluation

Python package or notebooks; model documentation; assumptions register; plots; validation/sensitivity report; tests or reproducible examples; final report.

Operational Boundaries

Simulation results are decision-support tools, not safety certification. Any use in physical deployment requires engineering review and supervised validation.

Future Collaboration Path

A successful Luna internship may lead to later thesis supervision, prototype collaboration, paid professional collaboration, startup work, or funding-search support through Commenda, where legally and academically compatible.

PDF Attachment Register

Ref.	Code	PDF attachment
A	PF-LU-001	Luna environmental and ESG impact report PDF.
B	LE-LU-001	ENAC inquiry / regulatory communication PDF.
C	ConI	Current Internship Agreement, mandatory candidate reading.
D	Attachment G	Confidentiality and digital-access framework.

For ColivingLiguria S.r.l.

Unsigned project proposal prepared by the host entity; this PDF does not evidence a CAdES/P7M signature

ColivingLiguria S.r.l.

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