

Curriculum vitae



Europass Curriculum Vitae

Personal information

First name / Surname **Ranieri Marinari**

Address

Telephone

E-mail

Nationality

Date of birth

Gender

Work experience

Dates November 2016 – October 2019

Occupation or position held Ph.D. Student in Nuclear Engineering, winner with grant of the competition for the three years Ph.D. research course. Research subject: **Numerical and experimental study of thermal-hydraulics and flow-blockage phenomena in heavy liquid metal cooled bundles**

Main activities and responsibilities The research activity was mainly focused on the numerical and experimental study of heavy liquid metal cooled bundles operated at ENEA Brasimone RC or in different research centres. The Ph.D. activity was also focused on the internal flow blockage and its main consequences in Heavy liquid metal grid spaced bundles with experimental activities carried out on the NACIE-UP loop equipped with an appropriate test section (designed and commissioned during the Ph.D. activity). During the research activity I worked in several international projects focused on the design of experimental installation in the field of LFR technology, in particular for the design of the fuel bundle simulator to be installed in a pool-type experimental facility in China (CLEARM1x)

Name and address of employer Università di Pisa, Dipartimento di Ingegneria Civile e Industriale, Largo Lucio Lazzarini 2, 56122 Pisa.

Dates February 2015 – October 2016

Occupation or position held Winner of grant for study and research

Main activities and responsibilities Analytical and numerical studies (mainly CFD) for the conceptual design and the engineering design of the main components (Heat Exchangers, Decay Heat Removal system, mechanical pump, Core Simulator) of an Heavy Liquid Metal pool type facility called CLEAR-S, international project between ENEA (Italy) and Chinese Academy of Science (China).

Name and address of employer Università di Pisa, Dipartimento di Ingegneria Meccanica Nucleare e della Produzione, Largo Lucio Lazzarini 2, 56122 Pisa

Dates	February 2014 – September 2014
Occupation or position held	Stage for the master degree thesis
Main activities and responsibilities	Literature review on wire-wrap rod bundles, first approach to CFD codes, Validation of ANSYS CFD code for wire-wrap rod bundles adopting experimental results on sodium. Pre-test CFD studies on the wire-wrap test section (called FPS) installed in the NACIE-UP heavy liquid metal cooled facility at ENEA Brasimone Research Center. Mesh independence study and turbulence model sensitivity of the CFD model of the FPS test section.
Name and address of employer	Università di Pisa, Dipartimento di Ingegneria Meccanica Nucleare e della Produzione, Largo Lucio Lazzarini 2, 56122 Pisa

Education and training

Dates	February 2020
Title of qualification awarded	PhD in Industrial Engineering (Nuclear Engineering curriculum): Optimum with honors
Name and type of organisation providing education and training	Università di Pisa, Dipartimento di Ingegneria Meccanica Nucleare e della Produzione, Largo Lucio Lazzarini 2, 56122 Pisa
Dates	October 2011 –October 2014
Title of qualification awarded	Master degree in Nuclear Engineering (108/110)
Principal subjects/occupational skills covered	Fusion Engineering, Neutronics, Nuclear Instrumentation and Measurements; Nuclear Reactor Kinetics; Control, Regulation and Protection Systems of Nuclear Reactors; Thermodynamics of Pressurized and Boiling Water Reactors; Nuclear Power Plants; Nuclear Project and Constructions; Core Engineering; Physics of Fission Reactors; Physical Radioprotection; Thermohydraulic; Machine Constructions; Machines; Electronics; Electrotechnics; Nuclear Materials Technology; Mechanics Applied to Machines; Mechanical Technology; Mathematical Analysis; Physics; Chemistry; Geometry.
Name and type of organisation providing education and training	Università di Pisa, Dipartimento di Ingegneria Meccanica Nucleare e della Produzione, Largo Lucio Lazzarini 2, 56122 Pisa
Dates	February 2015
Title of qualification awarded	Industrial Engineer Qualification Exam (Engineering License)
Name and type of organisation providing education and training	Università di Pisa, Dipartimento di Ingegneria Meccanica Nucleare e della Produzione, Largo Lucio Lazzarini 2, 56122 Pisa
Dates	October 2009 – October 2011
Title of qualification awarded	Bachelor degree in Industrial Safety And Nuclear Engineering, (106/110)
Principal subjects/occupational skills covered	Thermal-fluid-dynamic and CFD principles, Physics, Heat engines, Heat conduction, Elements and principles of nuclear engineering, Building engineering, Mechanical and nuclear construction, Radioprotection, IT Elements, Numerical analysis, Electrical system and components, Mechanical Technology, Safety and hazard analysis, Environmental protection
Name and type of organisation providing education and training	Università di Pisa, Dipartimento di Ingegneria Meccanica Nucleare e della Produzione, Largo Lucio Lazzarini 2, 56122 Pisa

Personal skills and competences

Mother tongue	Italian
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Other language(s) Self-assessment <i>European level</i> (*)	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
	English	B2	B2	B2	B2
French	A1	A1	A1	A1	A1

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences During my studies and postgraduate activities, I have worked into various scientific research groups and I am able for relating with people of various nationalities, ages and cultures. I am good in managing different problems, working in a group and finding solution in time. I am used to write report in English and Italian languages and to present my work at international conferences. Remarkable capacity for flexibility and adaptation.

Technical skills and competences DESIGN AND NUMERICAL SKILLS (CFD)
I have a wide experience (5 years) on CFD simulation in the field of LFR technology in particular the design of its main components as the steam generator, DHR, and fuel bundle (grid or wire-spaced) gained in different European and worldwide projects as H2020 SESAME, CLEAR-S and CLEAR-M1x Chinese LFR projects. I am involved in the WP-ENS task of EUROfusion consortium mainly focused in IFMIF-DONES project

ELECTRONIC:
I can assemble a personal computer from the distinct components and to realize and configure Lan network environments. I easily learn and understand the operation of most of the equipment and electronic devices.

MECHANICAL:
I have great confidence with tooling machinery as well as good knowledge of working technology used in productive realities. Modelling, phenomenological analysis and numerical interpretation.

Computer skills and competences I am an expert user of common software in Windows and Linux environment and I learn easily new ones. I have good skills with all Windows OS (XP, Seven, Windows 8.1, Windows 10) and Linux (Scientific Linux) with advanced knowledge of these environments.

I have an advanced knowledge of the software:

- ANSYS geometry
- ANSYS meshing
- ANSYS CFX
- MATLAB R2019
- Microsoft Office Professional 2016 (VBA programming)
- Autodesk Inventor

I have a good experience with the software:

- RELAP5/mod3.3
- CATIA (CAD software)

I have attended introduction courses on the software:

- COMSOL
- Autodesk Inventor
- ANSYS

Program languages known: Perl, Fortran, MATLAB.

Driving licence B European driving licence

Date 29/05/2020

Signature _____