VALERIA PARRINELLO

LEAD ENGINEER

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Livorno, Italy

EDUCATION

MASTER'S DEGREE IN ENERGY AND NUCLEAR ENGINEERING
University of Palermo (Italy)
2012 – 2015

ERASMUS INTENSIVE PROGRAM ON SAFE APPLICATION OF RADIATION AND RADIONUCLIDES
SCK-CEN (Belgium)
University of Hasselt (Belgium)
2014

BACHELOR DEGREE IN ENERGY ENGINEERING
University Of Palermo (Italy)
2009 – 2012

SKILLS

Planning and scheduling

Project presentation and reporting

Analysis and constructive thinking

Problem solving

Team Management

PROFILE

Strong-willed and goal-oriented nuclear engineer with 5+ years of experience in international projects. Deep knowledge of thermal-hydraulics phenomena occurring at nuclear facility/power plants. Main organizer of the BEPU-2018 (Best Estimate Plus Uncertainty) Conference.

PROFESSIONAL EXPERIENCE

April 2015 – Present

Nuclear Engineer

N.IN.E. Nuclear and INdustrial Engineering, Lucca (Italy)

- Support activity to the Hanhikivi-1 nuclear power plant licensing, the biggest investment project in Finland. Specifically, review of the Probabilistic Safety Assessment Report V&V subsection;
- Successfully led one of the two teams involved in the independent validation activity of a Chinese system thermal-hydraulics code, a €1 million worth project, submitting the results to the customer first;
- Mastered the company methodology and procedures to develop thermal-hydraulics model of nuclear facilities (starting from blue prints) and to perform qualified analysis of selected transient scenarios, evaluating the simulation results discrepancies with respect to the experimental database
- Company representative in many OECD/NEA international benchmarks and active member of the WGAMA expert group devoted to issuing the state-of-the-art report about multi-dimensional capabilities of system thermal-hydraulics code;
- Training of newly recruited personnel, supervisor of one master thesis student;
- Work performed under QA (ISO 9001) framework.

May 2017 - Present

Organizing Committee Member of the BEPU 2018 and 2021 International Conferences

N.IN.E. Nuclear and INdustrial Engineering, Lucca (Italy)

- Creation of templates in Word and LaTeX, creation of conference proceedings, preparation of invitation letters, email sorting, updating of website content;
- Budget preparation and management, database billing management, contact with suppliers (request for quotes, bargaining, etc.);
- Personnel management, assignment of roles and shifts, organization of social events

SOFTWARE

Office suite	●●●●●●
AutoCAD	●●●●●●
MATLAB	●●●●●○
Python	●●●●○○
Visual Basic	●●●○○○
HTML	●●●○○○
CSS	●●●●○○
JavaScript	●●●●○○
RELAP5	●●●○○○
CTF	●●●●●●
MCNP5	●●●●○○
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LANGUAGES

Italian	Mother Tongue
English	Fluent (C1)

COURSES

Fire prevention –Low Risk, July 2020

MMARS Course "Methods and Codes for Cross-Section Generation", 23-27 Nov 2015, Pisa, Italy

"Seminar on Severe Accidents Overview", 13th November 2015, Pisa, Italy

LECTURES

"CTF Training Course", May-June, 2020

"Seminar on Uncertainty and Best Estimate Analysis Methods" SUNBEAM Canada, October 7-11, 2019, Toronto, Canada

HOBBIES

Web Development course by Angela Yu on *udemy.com*

Python 3 course by Joseph Delgadillo on *udemy.com*

May 2012 – March 2015 **Research Assistant**
University of Palermo, Palermo (Italy)

- Hydraulic analysis of the ITER reactor Test Blanket Module Port Plug and its two Dummy TBMs with the RELAP5 code, in the framework of a contractual activity about the Draining&Drying scenario;
- Investigation of the nuclear response under irradiation of a facing-plasma-component of the ITER reactor following a numerical approach based on the Monte Carlo method and adopting the MCNP5 code. Activation analysis performed with FISPACT inventory code.

PROJECTS

- Validation activity of system and sub-channel thermal-hydraulics code (2020)
- Hanhikivi-1 NPP licensing (2019)
- Validation activity of a System Thermal-hydraulics code (2018-2019)
- CSNI/WGAMA Simulation Capability of 3-D System-Scale Thermal-Hydraulic Codes (3DSYSTH) (2017-2019)
- Thermal-hydraulics analyses of the Chinese HPR1000 NPP to simulate a set of Symptom based Emergency Operational Procedure Scenarios (2016-2017)
- OECD/NEA benchmark on BWR Stability Event, (2015-2017)
- OECD/NEA ATLAS Project Test A5.1 (2015-2016)
- OECD/NEA/CSNI PKL-3 Project Test H2.2run2 (2015-2016)
- Hydraulic Analysis for Test Blanket Module Port Plug (TBM PP) with two dummy TBMs (2014-2015)

PUBLICATIONS*

- C. Herer, D. Bestion, P. Fillion, R. Prea, V. Parrinello, A. Bousbia Salah, K. Kim, J. J. Jeong, "*3-D SYS-TH: an OECD/NEA activity on multi-dimensional capabilities of thermalhydraulic system*", ICAPP 2019 - International Congress on Advances in Nuclear Power Plants, Juan-les-pins, France, May 12-15, 2019
- V. Parrinello, M. Cherubini, "*SCCRED Methodology for V&V: Application to ATLAS A5.1 Test Benchmark*", BEPU-2018: Best Estimate Plus Uncertainty International Conference – Lucca, Italy, May 13-18, 2018
- D. De Luca, V. Parrinello, S. Huang, M. Cherubini, A. Petruzzi and C. Yang, "*Development of a Best-Estimate Thermal Hydraulics Model of the HPR-1000 NPP for Developing/Verifying EOP*", BEPU-2018: Best Estimate Plus Uncertainty International Conference – Lucca, Italy, May 13-18, 2018
- V. Parrinello, M. Cherubini, "*ATLAS A5.1 Test Benchmark Activity*", NURETH-17: 17th International Topical Meeting on Nuclear Reactor Thermal Hydraulics – Xi'an, China, September 3-8, 2017
- V. Parrinello, M. Cherubini, A. Petruzzi, "*Investigations on RELAP5-3D to RELAP5-3D Coupling Methodology by PVMEXEC*", Embedded Topical Meeting on Advances in Thermal Hydraulics 2016 (ATH '16), June 12–16, 2016 - New Orleans, LA
- P. Chiovaro, P. A. Di Maio, V. Parrinello, "*Nuclear Analysis of an ITER Blanket Module*", Journal of Fusion Energy (2013) 32:600–606

*most important only