

INFORMAZIONI PERSONALI

Alessandra Vannoni

PROFESSIONAL EXPERIENCE

3/01/2022 – ONGOING

Research Grant

"La Sapienza" University of Rome

Research grant entitled "Conceptual design and transient thermo-hydraulic analysis of the experimental plants to be carried out for the validation of the correlations and of the calculation tools for the design and verification of the Steam Generator of the EU-DEMO fusion plant".

16/05/2022 – 20/05/2022

Participant

SIET S.p.A., Piacenza

Participation to the "Hands on training on SIRIO experimental facility" in the framework of H2020 PIACE project.

15/05/2021 – 15/05/2021

Scholarship

"La Sapienza" University of Rome

Scholarship for research activity entitled "Study and preliminary design of the STEM circuit for the simulation of the steam generator of the EU-DEMO reactor".

19/02/2019 – 8/04/2019

Participant

"La Sapienza" University of Rome

Participation to the "Engineering And Energy Economics" course, held by Prof. Ing. Renato Enrico Urban. Realization of the bachelor's thesis, titled "Evaluation of a LNG plant".

25/05/2019

Visitor

Eni

Visit to the oil platform "Garibaldi-C" with Prof. Ing. Renato Enrico Urban, founder of "Urban Gas & Power".

15/05/2019 – 17/05/2019

Panel student

Nation Academy of Engineering

Participation to the "Grand Challenge Scholars Program" Workshop held at the Polytechnic University of Bucharest (Romania). Winner of the GCSP award from the National Academy of Engineering for having addressed in an article one of the fourteen "major challenges in engineering in the 21st century" ("make solar energy economical") and for having demonstrated the possession of the five skills required by the GCSP (Talent, Multidisciplinary, Viable Business / Entrepreneurship, Multicultural and Social Competencies).

29/12/2018 – 28/01/2019

Trainee

Onlus "Technologie Solidali"

Participation to the thirteenth edition of the "Field Study Abroad" project in the countries of Rwanda, Uganda and Kenya. Visit to some plants based on the use of renewable sources .

15/01/2019 – 24/01/2019

Participant

Res4Africa

Participation to the V and VI modules of the Micro-Grid Academy, dedicated to "Operation & Maintenance: most utilized micro-grid technologies and data management" held in Nairobi, Kenya.

EDUCATION AND TRAINING

1/11/2021 – ONGOING **PhD in “Energy and Environment”**
 “La Sapienza” University of Rome

October 2021 **Master Degree in Energy Engineering**
 “La Sapienza” University of Rome
 Vote: 110/110 e lode

July 2019 **Bachelor’s Degree in Energy Engineering**
 “La Sapienza” University of Rome
 Vote: 110/110 e lode

July 2016 **High School Classical Diploma**
 “La Sapienza” University of Rome
 Vote: 100/100

PERSONAL COMPETENCIES

Mother Tongue Italian

Other languages

	COMPREHENSION		SPEAKING		WRITTEN PRODUCTION
	Listening	Reading	Interaction	Oral production	
English	B2	B2	B2	B2	B2
Level 6 of the Trinity College London in 2011					

Competences Accuracy, seriousness and punctuality; ability to work independently as well as in groups and to manage unexpected situations. Critical and observational spirit, multitasking, resilience and adaptability. Excellent interpersonal skills and propensity for dialogue; creativity, empathy, listening skills and flexibility. Good writing skills.

Digital competences Office Tools: Word (expert), Excel (expert), PowerPoint (expert), Visio (expert)
 Engineering code: MATLAB (good)
 Code: RELAP5/Mod3.3 (expert)

Other competences I am a men's 11-a-side soccer referee registered with the FIGC.
 I am a volunteer at the blood donors association "Avis".
 I cultivate a passion for the piano and the transverse flute, with which I played in an orchestra and participated in numerous competitions.
 I took English courses, including Trinity College London.20/12/2011.

Driving Licence Type B

FURTHER INFORMATION

Publications

Journal Papers:
 ▪ Tincani A., Ciurluini C., Del Nevo A., Giannetti F., Tarallo A., Tripodo C., Cammi A., Vannoni A., Eboli M., Del Moro T., Lorusso P., Barucca L., Conceptual Design of the Steam Generators for the EU DEMO WCLL Reactor, Energies, 16 (6), 2601, 2023, DOI: 10.3390/en16062601.

- Ciurluini C., Vannoni A., Del Moro T., Lorusso P., Tincani A., Del Nevo A., Barucca L., Giannetti F., Thermal-hydraulic assessment of Once-Through Steam Generators for EU-DEMO WCLL Breeding Blanket primary cooling system application, Fusion Engineering and Design, 193, 113688, 2023, DOI: 10.1016/j.fusengdes.2023.113688.
- Vannoni A., Lorusso P., Eboli M., Giannetti F., Ciurluini F., Tincani A., Marinari R., Tarallo A., Del Nevo A., Development of a Steam Generator Mock-Up for EU DEMO Fusion Reactor: Conceptual Design and Code Assessment, Energies, 16 (9), 3729. DOI: 10.3390/en16093729
- Vannoni A.; et al., The STEAM facility: design and analysis, Proc. NURETH20, Washington DC (USA), August 20-25, 2023, <https://doi.org/10.13182/NURETH20-40567>
- Vannoni A.; et al., The Design of Water Loop Facility for Supporting the WCLL Breeding Blanket Technology and Safety, Energies 2023, 16, 7746, <https://doi.org/10.3390/en16237746>
- Vannoni A.; et al., STEAM experimental facility: A Step Forward for the Development of the EU DEMO BoP Water Coolant Technology, Energies 2023, 16, 7811, <https://doi.org/10.3390/en16237811>

International conferences:

- P. Lorusso, A. Del Nevo, P. Arena, M. Eboli, R. Marinari, A. Tincani, P. Agostini, N. Badodi, A. Cammi, T. Del Moro, A. Vannoni, C. Ciurluini, F. Giannetti, L. Barucca, STEAM: A novel experimental infrastructure for the development of the DEMO BOP water coolant technology, 19th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-19), Brussels, Belgium, March 6 - 11, 2022.
- A. Vannoni, P. Lorusso, M. Eboli, C. Ciurluini, D. J. Sierra, A. Del Nevo, Status, design and thermal hydraulic analyses of the STEAM facility for DEMO WCLL Balance Of Plant systems, presented at the 30th International Conference on Nuclear Engineering (ICONE30), 21st-26th May 2023, Kyoto (Japan).
- A. Del Nevo, N. Badodi, A. Cammi, C. Ciurluini, V. Cossu, M. Eboli, N. Forgiione, F. Galleni, F. Giannetti, B. Gonfiotti, P. Lorusso, P. Maccari, R. Marinari, L. Melchiorri, S. Pignatiello, L. Savoldi, S. Siriano, A. Tassone, A. Vannoni, Thermal hydraulics of WCLL Breeding Blanket: R&D and applications, presented at the 20th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-20), 20th-25th August 2023, Washington, USA.
- A. Vannoni, C. Ciurluini, F. Giannetti, P. Lorusso, M. Eboli, A. Tincani, A. Del Nevo, Low-power testing of the EU-DEMO Steam Generator mock-up, presented at the 15th International Symposium on Nuclear Technology (ISFNT15), 10th-15th September, Gran Canaria, Spain.
- M. Eboli, A. Vannoni, P. Lorusso, C. Ciurluini, F. Giannetti, A. Tincani, A. Del Nevo, Thermal-hydraulics characterization of the Steam Generator mock-up during operational transients in STEAM facility in support of the design of the DEMO WCLL BoP, presented at the 15th International Symposium on Nuclear Technology (ISFNT15), 10th-15th September, Gran Canaria, Spain.
- D. Caterino, A. Del Nevo, M. Eboli, A. Froio, R. Marinari, A. Vannoni, A. Zappatore, Thermal-hydraulic assessment of the inlets and outlets of the Steam Generator mock-up for the EU DEMO WCLL, presented at the 15th International Symposium on Nuclear Technology (ISFNT15), 10th-15th September, Gran Canaria, Spain.
- A. Del Nevo, P. Arena, N. Badodi, A. Cammi, P. A. Di Maio, N. Forgiione, F. Giannetti, B. Gonfiotti, P. Lorusso, P. Maccari, R. Marinari, A. Orefice, A. Tincani, M. Valdiserri, A. Vannoni, A. Venturini, M. Eboli, The Water cooled lithium lead thermal-HYDRAulic experimental platform, presented at the 15th International Symposium on Nuclear Technology (ISFNT15), 10th-15th September, Gran Canaria, Spain.
- P. Arena, A. Del Nevo, M. Eboli, B. Gonfiotti, P. Maccari, R. Marinari, A. Tincani, N. Badodi, G. Bongiovì, I. Catanzaro, F. Galleni, L. Sanasi, A. Tarallo, A. Vannoni, W-HYDRA: a new experimental platform for the water-cooled lead lithium breeding blanket, presented at the 29th IAEA Fusion Energy Conference (FEC23), 16th-21st October, London, UK.

Technical Reports

- 1. A. Vannoni, P. Lorusso, A. Del Nevo, M. Eboli, Preliminary thermal-hydraulic characterization of the STEAM facility, ST-N-R-617, ENEA report, December, 2021
- 2. A. Vannoni, P. Lorusso, A. Del Nevo, M. Eboli, Nodalization of STEAM Facility and Preliminary Analyses, ST-N-R-584, ENEA report, February, 2022

- 3. P. Lorusso, A. Del Nevo, M. Eboli, A. Vannoni, C. Tripodo, Design of the new built STEAM facility for low power testing, ST-D-S-569, ENEA report, August, 2022
- 4. A. Vannoni; M. Eboli, C. Ciurluini, F. Giannetti, A. Del Nevo, Assessment of the OTSG mock-up during Pulse-Dwell-Pulse operational transients, ST-N-R-682, ENEA report, April 2023
- 5. A. Vannoni; M. Eboli, C. Ciurluini, F. Giannetti, A. Del Nevo, Thermo-hydraulic analysis and characterization of the STEAM Air Coolers by system code, ST-N-R-678, ENEA report, May 2023
- 6. A. Vannoni; M. Eboli, C. Ciurluini, F. Giannetti, A. Del Nevo, RELAP5/Mod3.3 nodalization description and qualification of STEAM facility. ST-N-R-679, ENEA report, May 2023

Deliverables:

- 1. F. Giannetti, C. Ciurluini, T. Del Moro, A. Vannoni, A. Del Nevo, M. Eboli, P. Lorusso, A. Tincani, Thermal hydraulic conceptual design of the WCLL FW and BZ PHTS OTSG, EUROfusion Internal Deliverable, BOP-S.02.02-T003 - D001, December, 2021.
- 2. F. Giannetti, C. Ciurluini, T. Del Moro, A. Vannoni, A. Del Nevo, M. Eboli, P. Lorusso, A. Tincani, Thermal-hydraulic conceptual design of the IEOTSG, EUROfusion Internal Deliverable, BOP-S.02.02-T004 - D001, December, 2021.
- 3. F. Giannetti, C. Ciurluini, T. Del Moro, A. Vannoni, F. Massimo, V. Narcisi, M. Corcione, A. Del Nevo, M. Eboli, P. Lorusso, A. Tincani, WCLL BoP Direct with Small Energy Storage Modelling&Analysis - FW+BZ PHTS OTSGs & IEOTSGs options T/H analysis, EUROfusion Internal Deliverable , BOP-S.02.02-T004, June 2022.
- 4. M. Eboli, A. Vannoni, C. Ciurluini, M. Frullini, F. Giannetti, A. Del Nevo, P. Lorusso, A. Tincani, Review and new scaling of OTSG STEAM test section, EC FP9 EUROfusion Project, WPBOP-T.02.01-T001-D003, IDM Ref. 2Q6BPE v1.0, 10 Feb 2023 (ENEA ref. ST-N-R-661 Rev.0).
- 5. F. Giannetti, C. Ciurluini, A. Del Nevo, A. Vannoni, WCLL BoP Direct with Small Energy Storage Modelling&Analysis – BB OTSGs T/H analysis, EC FP9 EUROfusion project, WPBOP-S.03.02-T008-D001, IDM Ref 2Q65FL v1.0, 14 Apr. 2023.

Awards and Acknowledgement

NAE Grand Challenges Scholars Program, spring 2019

Personal Data

I authorize the processing of personal data, in accordance with the provisions of law 196/03.