Elina Charatsidou MSc

Physicist & Nuclear Engineer

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EXPERIENCE

Newsletter Editor   May 2020 - Present
KTH Royal Institute of Technology | Stockholm, Sweden

Editorial work for the newsletter of the School of Science, KTH. Performing interviews with university staff, students and alumni, planning monthly topics of discussion, writing and editing articles, formatting the appearance of the newsletters via web page design.

Master Thesis   Jan. 2020 - June 2020
Westinghouse Electric Company | Västerås, Sweden

- Thesis Title: A machine learning approach to the nuclear fuel fabrication process.

Key Accomplishments:
- Innovative implementation of deep machine learning algorithms in the nuclear energy industry.
- Reducing human error during fabrication of nuclear fuel in the company.
- Increase fuel utilisation by optimising important parameters.

Link: http://kth.diva-portal.org/smash/record.jsf?pid=diva2%3A1441542&dswid=-8415

International Student Ambassador & Mentor for students with disabilities   Sept 2018 - June 2020
KTH Royal Institute of Technology | Stockholm, Sweden

- Ambassador's duties: Providing support and information to international students interested in applying for master's studies at KTH. Mentor's duties: Mentoring students with special needs, by organizing their schedule, study plan, and extracurricular activities.

Key Accomplishments:
- Significantly increased student enrollment year-over-year from countries & universities that were visited by the ambassador for educational & informative purposes.
- Achieving to maintain a healthy relationship among the students with disabilities and their university environment, by schedule planning, often meetings and discussions.

Library Assistant   Nov. 2016 - Dec. 2017
AUTh Aristotle University of Thessaloniki | Thessaloniki, Greece

Responsible for day-to-day library and help desk operations including student account openings, book lendings and returns, efficient sheft organisation, as well as technical support to staff, faculty, and 500+ students for book, software and accounts related issues.

Key Responsibilities:
- Managed software for book lending, returns, ordering and distributing to the students, as well as optimisation of library book storing.

Translator   Oct. 2016 - Dec. 2016
AUTh Aristotle University of Thessaloniki | Thessaloniki, Greece

Translation of the manual of a photomultiplier, manufactured in Russia, for the Nuclear Physics and Elementary Particle Physics Department at AUTh from russian to greek & english.

Key Responsibilities:
- Utilizing bilinguality to assist in correct translation of the user manual as well as ensuring proper use and storing of the equipment.

Tutor   Oct. 2014 - Jan. 2017
Private Courses | Thessaloniki, Greece

Teaching Physics, Mathematics, Chemistry, and Biology to middle school and high school students.

Key Accomplishments:
- Enhancing students' knowledge and assisting with homework tasks in physics, maths, chemistry & biology.
- Preparing senior high school students for the Greek national (pan-hellenic) exams, with outstanding results.

EDUCATION
Ph.D. Physics and Nuclear Engineering
Doctoral Degree | KTH Royal Institute of Technology | Stockholm, Sweden   Jan. 2021 - Present
- Fabrication, Characterization, Degradation of Thermophysical Properties & Multi-scale simulations of UN fuel for LFR within the SUNRISE project (https://www.reactor.sci.kth.se/sunrise/sunrise-1.999712)

MSc Nuclear Energy Engineering
Master Degree | KTH Royal Institute of Technology | Stockholm, Sweden   Aug. 2018 - June 2020
- 2-year master's program in Nuclear Energy Engineering
- 120 credits

BSc Physics
Bachelor Degree | AUTh Aristotle University of Thessaloniki | Thessaloniki, Greece   Sept. 2013 - July 2017
- 4-year bachelor's degree in physics with a specialization in nuclear physics.
- GPA: 8.35/10.00

ADDITIONAL EDUCATION & CONFERENCES
Frederic Joliot / Otto Hahn Summer School on Nuclear Reactors, Physics, Fuels, and Systems KIT & CEA
Summer School | Karlsruhe, Germany   21 Aug. 2019 - 31 Aug. 2019
- Introduction to current work conducted in the nuclear industry, existing and new applications of nuclear physics, and introduction to new reactor designs.
- Group assignments and projects to avoid excessive complexity in the nuclear industry.

2019 Elements of the Back end of the Nuclear FuelCycle: Geological Storage of Nuclear Spent Fuel
Summer School | Oskarshamn, Sweden   8 June 2019 - 20 June 2019
- Joint course by the Royal Institute of Technology-KTH, Nova-Oskarshamn, SKB, the European EMINE program and INSPIRE cooperation.
- Group assignments and projects work on public acceptance, as well as permanent fuel repository.

28th Annual Symposium Hellenic Nuclear Physics Society, Aristotle University of Thessaloniki, Physics Department
Conference | Thessaloniki, Greece   31 May 2019 - 1 June 2019
- Representative of the Nuclear Energy Engineering Master's Program at KTH. Presentation conducted regarding the above-mentioned program as well as the EMINE (European Master's in Nuclear Engineering) program.

CEA/INSTN - ISIS Reactor Training Course | Saclay, Paris, France   4 Dec 2018 - 7 Dec 2018
- Representative of the Nuclear Energy Engineering Master's Program at KTH. Presentation conducted regarding the above-mentioned program as well as the EMINE (European Master's in Nuclear Engineering) program.
- Training Course in the ISIS reactor, for students from the Nuclear Energy Engineering Master's Program at KTH, within the course of Nuclear Reactor Physics.

11th Spring School 2018 Spring School | Borovets, Sofia, Bulgaria, JINR – Dubna, Russia   15 May 2018 - 18 May 2018
- Participation in the 11th Spring School 2018 JINR conference related to Nuclear Physics developments, organized by scientists in Dubna, Russia.

10th Spring School 2018 Spring School | Borovets, Sofia, Bulgaria, JINR – Dubna, Russia   16 May 2017 - 19 May 2017
- Participation in the 10th Spring School 2017 JINR conference related to Nuclear Physics developments, organized by scientists in Dubna, Russia.

SKILLS

Languages:

Greek	Native| Proficient	Ukrainian	Basic	Swedish |Basic
Russian	Native	Proficient	German	Basic	
English	Proficient	French	Basic	

Programming Languages: Python | Expert, Matlab/Simulink | Intermediate, MCNP | Expert, Apros | Basic, Machine Learning | Expert, Mathematica |Basic, Serpent | Intermediate, OriginLAB |Basic, MS Office | Expert, C | Basic, VASP | Basic

Operational Systems: Windows | Linux |Android

CERTIFICATES

CPR Certificate   Acquired 29 Mar. 2019
- Trained and certified in CPR and first aid for infants, children, and adults.

Driving License   27 Sept. 2017 - 27 Sept. 2032
- Category: B