

Eran Landau

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Education

- 2019-Today Ph.D., Department of Mechanical Engineering, Ben-Gurion University (Ongoing)
Thesis subject: "*Modeling and simulation of pre-heating stages in electron beam additive manufacturing*"
- 2012-2015 M.Sc., Department of Nuclear Engineering, Ben-Gurion University, (Summa-Cum Laude).
Thesis subject: "*A 3D Thermo-Mechanical model to predict ballooning and burst behavior of Zircaloy-4 fuel cladding during LOCA transients in LWR employing commercial numerical simulation software* "
- 2007-2011 B. Sc., Department of Mechanical Engineering, Ben-Gurion University.
Engineering project: "*Dynamic Analysis for a Tube Set Based Energy Absorber*"

Employment

- 2013-present : NRCN – R&D Engineering specializing in thermal and mechanical analysis and simulations
- 2011-2013 : Rotem Industries LTD. – R&D Engineering and dedicated training program for NRCN

Awards and Honors

- 2018 Nominated for NRCN management award for innovative research in development of unique simulation capabilities.
- 2015 Graduated with extra honors (Summa cum-laude) from MSc program in nuclear engineering
- 2014 Awarded best research work for young researchers at INIS 2014 conference

Academic Activities

Part of a collaborative research group operating under a PAZI research grant, investigating additive manufacturing using electron beam powder bed fusion (EBM). The work, also being performed as part of a PhD program, focuses on process investigation using advanced thermal (and mechanical) simulation tools. Those, are tailored specifically for the EBM process and with a strong focus on process unique stages such as powder-bed preheating.

Educational Activities

Courses taught

1. Introduction to design and design-by-analysis using the RCC-MRx code guide for nuclear safety components, NRCN, 2016.

Research students

Mentoring of the following academic engineering projects:

- 2016 – 2017: BS.C Engineering project – Design of a dedicated experiment system for constrained buckling of concentric rod and tube, BGU.
- 2017 – 2018: BS.C Engineering project – Manufacturing and experimental investigation of constrained buckling of concentric rod and tube using image analysis algorithms, SCE.
- 2020 – 2021: BS.C Engineering project – Design of race-car tube-based chasis for BGU race-car competition project, including a group integrated design and mechanical simulations, BGU.