

Hakan Polat

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PERSONAL INFORMATION:

Date and Place of Birth: 30/06/1994 – KADIKOY/İSTANBUL
Citizenship: Republic of Turkey

EDUCATION:

2018-...	MSc. MIDDLE EAST TECHNICAL UNIVERSITY	Ankara/TURKEY
	3.33/4.00	
2013-2018	BSc. MIDDLE EAST TECHNICAL UNIVERSITY	Ankara/TURKEY
	3.39/4.00	
2009-2013	İstanbul Erkek Lisesi	İSTANBUL/TURKEY

AWARDS&HONOURS:

- Abitur (Bundes Republik Deutschland) 2.9/4.0

LANGUAGE AND COMPUTER SKILLS:

Language,

-Turkish (Native Language)
-Advanced English
-Upper-Intermediate German

CAD + Analysis,

-Proficient user of Altium Designer
-Proficient user of Solidworks
-Proficient user of COMSOL MF Module
-Proficient user of ANSYS-Maxwell
-Intermediate level of AutoCad
-Beginner level PSIM
-Beginner Level PSS-Sincal

Computer Language,

-Proficient user of Cose Composer Studio (CCS)
-Proficient user of MATLAB
-Beginner level of Verilog
-Beginner level Python
-Intermediate level of C/C++

Other Programs / Hardware,

- Texas Instruments F28379D
-Proficient user of MS-Office
-Github
-LaTeX
-Arduino
-Proficient user of LT-Spice

PUBLICATIONS

- Under Review- <https://doi.org/10.36227/techrxiv.14370599.v1>/Fault Tolerant Modular Inductive Power Transfer System Design Using Resonator Coil / IEEE Transactions on Industrial Electronics / Hakan Polat- Enes Ayaz- Ogün Altun- Ozan Keysan
- Under Review- <https://doi.org/10.36227/techrxiv.13013882.v1>/Balancing of Common DC-Bus Parallel Connected Modular Inductive Power Transfer Systems / Journal of Emerging Topic in Power Electronics / Hakan Polat- Enes Ayaz- Ogün Altun- Ozan Keysan

- N. Tosun, D. Ceylan, H. Polat and O. Keysan, "A Comparison of Velocity Skin Effect Modeling With 2-D Transient and 3-D Quasi-Transient Finite Element Methods," in *IEEE Transactions on Plasma Science*, doi: 10.1109/TPS.2021.3067105.
- H. Polat, N. Tosun, D. Ceylan and O. Keysan, "Optimization of a Convex Rail Design for Electromagnetic Launchers," in *IEEE Transactions on Plasma Science*, vol. 48, no. 6, pp. 2266-2273, June 2020, doi: 10.1109/TPS.2020.2993785.
- H. Polat, D. Ceylan and O. Keysan, "Utilization and Optimization of Superconducting Coil Parameters in Electromagnetic Launcher Systems," *2019 IEEE Pulsed Power & Plasma Science (PPPS)*, Orlando, FL, USA, 2019, pp. 1-6, doi: 10.1109/PPPS34859.2019.9009612.
- N. Tosun *et al.*, "A Hybrid Simulation Model for Electromagnetic Launchers Including the Transient Inductance and Electromotive Force," in *IEEE Transactions on Plasma Science*, vol. 48, no. 9, pp. 3220-3228, Sept. 2020, doi: 10.1109/TPS.2020.3016930.
- D. Ceylan, M. Karagöz, Y. Çevik, B. Yıldırım, H. Polat and O. Keysan, "Simulations and Experiments of EMFY-1 Electromagnetic Launcher," in *IEEE Transactions on Plasma Science*, vol. 47, no. 7, pp. 3336-3343, July 2019, doi: 10.1109/TPS.2019.2916220.

EXTRACURRICULAR ACTIVITIES:

2013-2018	MEMBER OF METU ARCHERY TEAM I am taking part in the university competitions and Turkish Archery
2008-...	MEMBER OF SAKARYA SCOUTING GROUP Taking part in scouting camps with my high school scouting group. I organized 3 camps and 4 daily activities.
Summer 2016	INTERNSHIP AT ALARKO CARRIER TIC. SAN. A.Ş Worked in the department of Building Automation Systems for one month.
Summer 2017	INTERNSHIP AT INFINEON TECHNOLOGIES REGENSBURG/GERMANY I constructed my summer internship for 2 months in the department of production where I developed the practical skills and also theoretical knowledge about power electronics inverter production. Also I briefly had the chance to see silicon production and its steps.
2016-...	MEMBER OF METU POWERLAB Learning finite element method to analyze force, heat and EM of electromechanical elements.
2017- 2018	Unofficial Motor Design Course Using FEA https://github.com/odtu/motor-design

SOCIAL ACTIVITIES AND OTHER INTERESTS:

- I am very interested in archery and have been doing it for 5 years and planning to continue.
- Although not currently doing professionally I enjoy playing chess and swimming.
- I like being in the nature and hiking.