

Dear Dr. J. Cremer,

I am writing to express my keen interest in the PhD position in AI research for energy system planning and operations. With two Master's degrees in Automatic Control Systems and Energy Systems, as well as a Bachelor's degree in Electrical Engineering, and my previous position as a research intern at the Center for Energy Systems, Skolkovo Institute of Science and Technology, I am confident that I have the technical background and passion required to succeed in this role.

My previous research in Photovoltaic power forecasting with machine learning techniques at Skolkovo Institute of Science and Technology has given me extensive experience in applying AI to energy systems. Additionally, my current work on frequency and voltage control in microgrid using thermostatically controlled load has honed my skills in dynamic systems modelling, and grid control and requirements. I am eager to build on this experience at the Delft AI Energy Lab and the Austrian Institute of Technology (AIT) to develop AI-based algorithms that will support smarter grid operation and enable more sustainable e-mobility.

I am particularly drawn to the challenge of exploring the interaction of user behaviour, grid stability, and charging management to support stable energy grids for e-mobility. With my expertise in machine learning, energy system modelling, and dynamic systems, I am confident that I can make a significant contribution to this exciting area of research.

In addition to my technical skills, I am a strong communicator and team player. I am excited about the opportunity to collaborate with the teams at AIT and Delft AI Energy Lab, as well as major grid and fleet operators. I am also eager to build verification test beds and stay up-to-date on the latest machine learning techniques.

Thank you for considering my application. I am confident that my skills and experience make me an excellent fit for this role and I look forward to the opportunity to contribute my expertise to the outstanding team at Delft AI Energy Lab and AIT.

Sincerely,

Divine Okeke