New AI-powered app could boost smartphone batteries by 30 per cent

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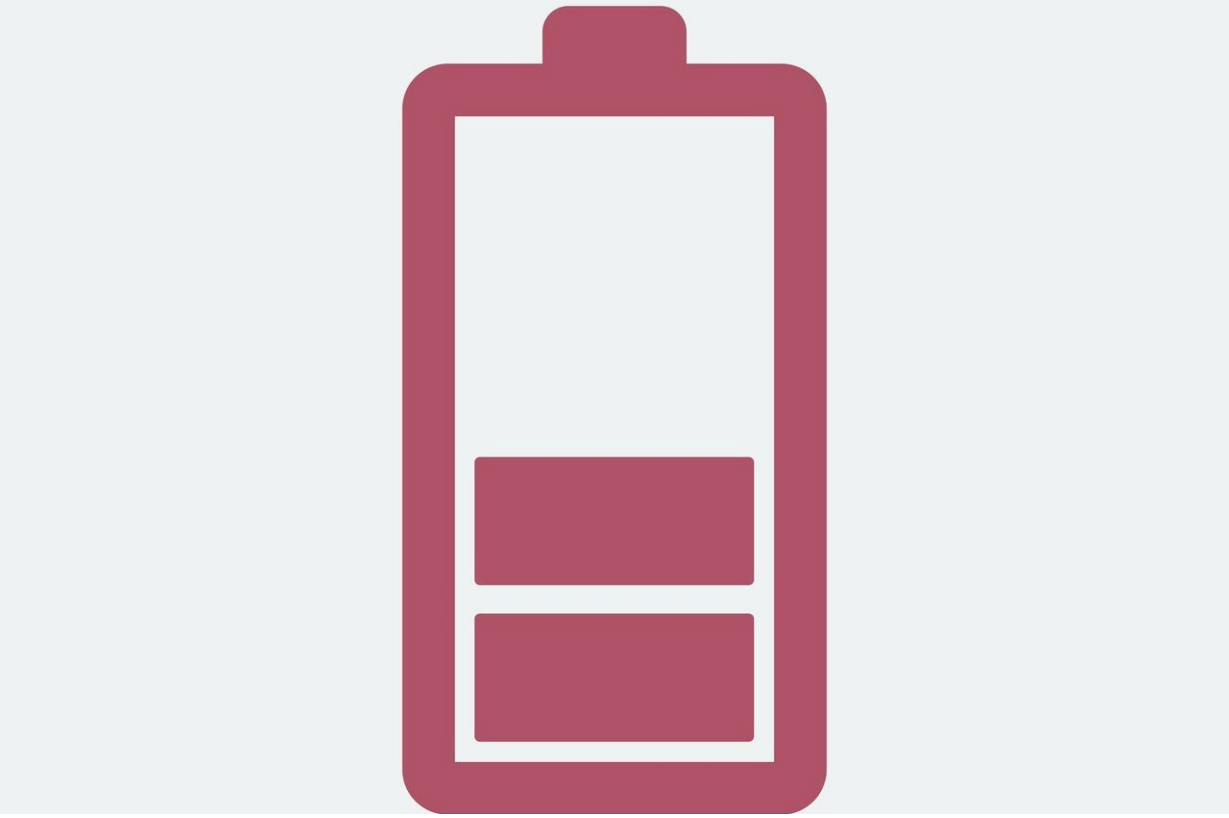

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A cutting-edge AI development that could boost smartphone battery life by 30 percent and shave countless kilowatts from energy bills will be unveiled to technology giants. The ground-breaking University of Essex-

developed work has been rolled into an app called EOptomizer—which will be demonstrated to expert researchers and designers as well as major manufacturing companies like Nokia and Huawei.

It is hoped the EOptomizer app will be adapted across the industry and help drive down carbon emissions, by making consumers' goods last longer.

It will do this by using software to dramatically increasing efficiency and reliability in phones, tablets, cars, smart fridges and computers' batteries—delaying when consumers need to buy carbon-footprint-producing replacements. The event—which takes place in Robinson College, in Cambridge, on 11July—will showcase the impact EOptomizer could have across the globe.

Developed by former Samsung, Microsoft and HCL Technologies employees, the software uses artificial intelligence (AI) to optimize chip performance, heat generation and efficiency.

The work has been spearheaded by Dr. Amit Singh, from Essex's School of Computer Science and Electronic Engineering.

He says that they "are so excited to showcase what we have been working on to some of the biggest companies in the world. "

"It is our hope that this app will help make everyone's life better, save them money and help save the environment. This will be the first step on what we hope is a journey that will see our app in the hands of consumers across the globe."

"Considering approximately 50 billion devices by 2025 and many more thereafter, EOptomizer has great potential to help to achieve net zero emissions goal of the UK and the whole world."

The cutting-edge tech analyzes how an app is being used throughout the day and optimizes energy use.

For example, a user might quickly scroll through the BBC News app while at work to check the headlines, which will require a higher FPS (frames per second) than when they spend more time on the app in the evening, slowly scrolling down and reading more stories in full.

The methodology means the AI realizes the change in FPS for the app being used and tries to find the best operating frequency of CPU and GPU processors to cater for the change whilst consuming the least amount of power and temperature gain in the device, which is a critical issue in mobile phones.

More information: www.essex.ac.uk/events/2022/07 … -launch-and-workshop

Provided by University of Essex

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