

THE CENTER OF COMPUTER SCIENCE CORDIALLY INVITES YOU

– Inaugural Lecture –

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“(R)evolution Ahead: Energy-aware Operating Systems for Next-generation Computer Systems”

Abstract

For today's computer systems, electrical energy is the single most important operating resource. Hence, the conscious use of energy resources is crucial and it depends on the respective computing systems and their application: from "smart dust" and battery-powered mobile systems to large-scale high-performance computing clusters that operate under thermal constraints.

In this inaugural lecture, I will present energy-aware programming techniques that originate in static and dynamic program analyses, and support the design of energy-aware system software. To bridge the gap towards execution time, the lecture further discusses Albatross, an operating system that exploits dynamic electricity prices to ensure the efficient operating of heterogeneous HPC clusters. With a look on recent hardware developments, I discuss upcoming challenges that will dramatically reshape the structure and design of future operating systems for next-generation computer systems.

When? 23rd of June 2021, 04:00 PM

Where? Via [Zoom](#) (Meeting-ID: 695 2988 7163, Password: 690515)

Anyone interested is warmly welcome to the lecture. No registration is necessary.
We are looking forward to your participation!