

CDMS Research Seminar

Towards a sustainable Edge: Two-phase immersion cooling and ML as the basic building blocks for future computing infrastructures

Thursday, 10th June 2021, 5:00pm

Zoom link:

<https://uws.zoom.us/j/81614745904?pwd=OXdUa0pFMjZnZTU3ZjI0S0YyMTYvdz09>

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Speaker: Dr Patricia Arroba, Universidad Politécnica de Madrid, Spain

Abstract: Edge Computing emerges as a paradigm to bring computing resources closer to end users, for the offload of workloads from the Cloud, helping to foster a more scalable and flexible computing model. This new paradigm presents many advantages but is much more disruptive than anticipated, so it brings its own set of challenges. In this seminar we will analyze the main challenges involved in the deployment and dynamic operation of new Edge infrastructures from the perspective of energy efficiency and sustainability. We will address topics as diverse as how new immersion cooling techniques and Machine Learning can help us in Edge modeling, simulation and management.



Bio: Patricia Arroba received her Ph. D. in Electronic Systems Engineering from the Technical University of Madrid (UPM), Spain, in 2017, obtaining the cum laude distinction and the UPM Ph.D. Extraordinary Award. In 2017, she joined the Matsuoka Lab. at the Tokyo Institute of Technology for a research stay under the supervision of Professor Satoshi Matsuoka. Her mobility was funded by the European Network of Excellence on High Performance and Embedded Architecture and Compilation (HiPEAC) and by the European Commission (EM-EASED) respectively. Since 2018, she has been an Assistant Professor at the Telecommunications Engineering School at UPM. Her current research focuses on energy efficiency of Cloud and Edge infrastructures, considering computing and cooling systems and Smart Grid capabilities for Internet of Things and Smart City applications. In this field she has developed thermal and power models, modeling and simulation frameworks and optimization algorithms under dynamic operating conditions.

For details about CDMS Research Seminars, please contact Dr Rodrigo Calheiros (r.calheiros@westernsydney.edu.au)

Rodrigo Calheiros is inviting you to a scheduled Zoom meeting.

Topic: CDMS Research Seminar: Patricia Arroba

Time: Jun 10, 2021 05:00 PM Canberra, Melbourne, Sydney

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