

IEEE CIRCUIT & SYSTEM WORKSHOP ON 'Power Management for Internet of Everything'

Monday November 27th – EPFL campus, Room INM010

Tuesday November 28th – EPFL campus, Room DIA004

Managing power for the Internet of Everything (IoE) devices is a challenging task because the devices must always be powered up and can be located anywhere, including harsh, remote environments. It is often impossible to run a wire to a devices. The first session is focused on remote powered wireless sensor nodes enabling a broad spectrum of applications. A measurement topic breaks up the afternoon before switching to a more low power VLSI design from an industry. After a brief low power sensor applications the next day will also kick off with some low power VLSI from an industry perspective. Finally the afternoon will wrap-up some application and power management concept. A Poster session is expected to conclude the workshop with student's research poster exhibition, presentation and a social evening.

The workshop brings together a group of prominent scientists from all around Europe from both industry and academia, presenting the most recent findings but also the exciting prospects of these fascinating technologies.

Workshop Program

| Time line | DAY 1 | Time line | DAY 2 |
|-------------|---|---------------|--|
| 8:30-8:45 | Welcome notes | 8:30 - 9:30 | 'Low power Hall effect sensor. From design optimization to CMOS integration' Maria-Alexandra Paun |
| 8:45-10:00 | 'Application in biosensing of power delivery' Sandro Carrara, EPFL | | |
| 10:00-10:30 | Coffee Break | 9:30 - 10:00 | Coffee Break |
| 10:30-12:00 | 'Optimization of the transfer of power and of the data communication in the case of remotely powered sensor networks.' Catherine Dehollain, EPFL | 10:00 - 11:30 | 'LP SoC in FDSOI' Pascal Urard, ST-Microelectronics |
| | | 11:30- 12:00 | 'It's all about time' Mathieu Coustans, EPFL |
| 12:00-13:30 | Lunch | 12:00-13:30 | Lunch |
| 13:30-14:30 | 'A System on Chip for Energy Harvesting and Wireless Power Transfer' Roberto La Rosa, ST Microelectronics | 13:30-14:30 | 'Connected object, a Bluetooth comparison of on the shelf transceiver, cheap energy harvester' Marcel Meli, ZHAW |
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| 14:30-15:00 | 'Measuring and Analyzing Dynamic Current Profiles in Low Power Applications' Christoph Zysset, Computer Controls (Keysight ATR) | 14:30-15:00 | 'Microsoft's approach to IoT - Real-life examples of IoT as a platform service' Sherryl Manalo, Microsoft Switzerland |
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| 15:00-15:30 | Coffee Break | 14:30-15:30 | Coffee Break |
| 15:30-17:00 | 'Digital Low Power VLSI' Burg Andreas, EPFL | 15:30-17:00 | 'Vertical co-design and integration in Energy Harvesting: from device, circuit and system levels to IoT applications' Eduard Alarcon, UPC |
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| 17:00-18:00 | Panel discussion | 17:00-18:00 | Student presentation |
| | | 17:30-18:30 | Poster Session |
| | | 18:00-19:00 | Social evening |

Registration Rates:

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|-------------------------------|---------|
| Standard | 200 CHF |
| IEEE Member or Student | 100 CHF |
| Speaker | Free |
| Doctoral school ECTS program* | Free |

*Student or Enrolled in Doctoral school program are subject to an examination.

Each PhD student will have to perform an oral presentation linked to power management and then to participate to a poster session at the end of the 2nd day. To reach this goal, a scientific publication in the field of power management will be proposed by C. Dehollain and/ or by the speakers to the PhD student. Each PhD student will have to answer to the questions of the audience and of C. Dehollain (catherine.dehollain@epfl.ch) at the end of the oral presentation as well as during the poster session. Course could be found in EPFL course book as: [MICRO-622: Power Management for Internet of Everything](#). (Coffee breaks and social evening are included, lunch have to be purchased separately).

Registration fees include*

- Access to all scientific sessions
- Proceedings access
- Morning and afternoon coffees
- Lunches
- Social Evening

* No refunds will be available

Venue

By plane and by train
Geneva Airport (45 min)
Zurich Airport (2h30)

<http://www.sbb.ch/en/index.htm>

(use Geneva/ Zurich Airport as point of departure and Lausanne for arrival).

Accommodation:

At EPFL Campus:

[SwissTech Hotel](#)

[Starling Hotel](#)

For other possibilities:

[Lausanne Tourism Information](#)

Hostel:

[Guest-Housse](#)