

**IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS)**  
**Special Issue on Microwatts Wireless Technologies**

With the projected widespread usage of sensors, in environment monitoring, smart home, healthcare, and many other applications, ultra-lower power wireless technology is one of the major challenges faced in the electronics today. Innovation is required at both the circuits (e.g., low power LNA, Mixer, VCO, PA, memory) and system (e.g. new communication schemes, wake-up radio) levels. Great progress has been seen in past years towards autonomous systems where energy can be extracted locally at the sensor nodes. For these systems, it is believed wireless transmission of data at microwatt level is required.

**This Special Issue on microwatts wireless calls for contributions in the following areas:**

- Ultra-low power circuit building blocks for wireless communications
- New communication schemes that reduce average energy consumption and targets microwatts wireless communications
- Energy harvesting schemes and power management specifically for microwatts wireless systems
- Ultra-low power design using non-traditional devices and techniques (MEMS, 3D packaging)
- Memory architectures aimed at microwatts operations
- Modeling and analysis frameworks highlighting ultra-low power system level design
- System demonstrations for applications of interests (examples include but not limited to healthcare, environmental sensing, infrastructure monitoring, surveillance)

**Submission Guidelines:** All submitted manuscripts must (i) conform to JETCAS formatting requirements; (ii) incorporate no less than 60% of new (previously unpublished) material; (iii) validate principal claims with experimental results and all secondary, difficult-to-test claims with simulations; and (iv) be submitted on line at <http://jetcas.polito.it/Forms/Authors/index.html>.

Authors are encouraged to submit high-quality contributions following the instructions provided on the JETCAS website: <http://jetcas.polito.it>

**Important dates:** Target Publishing Time: September 2014.

- Submission: no later than March 1, 2014.
- First round of reviews will be completed by April 1st, 2014
- Revisions will be submitted by May 1, 2014.
- Final acceptance/rejection decisions will be notified by June 25, 2014.
- Camera-ready versions of the accepted manuscripts will be due July 3, 2014.

**Guest Editors:**

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