



**CALL FOR PAPERS FOR THE SPECIAL ISSUE**

MICROFLUIDICS ENGINEERING FOR POINT OF CARE DIAGNOSTIC

The world of biomedical devices is certainly one industrial sector that could benefit the most from microfluidics point-of-care (POC) based diagnostics. The idea behind POC devices is to perform a diagnostic test near the patient without the need of any infrastructure and trained personnel. That entails the miniaturization of complex fluids handling, from the single cell to the multi-phase flow, integrated detection and samples manipulation. The integration in an embedded micro-device of the technologies related to the mechanics, optics, electronics, fluidics and computer engineering together with a low cost micro-fabrication technology are fundamental requirements in POC device realization.

The scope of this special issue is to bring together contributions focusing on new concepts in POC devices realization, including, but not limited to:

* Micro-fabrication, interface between fluids and electronics and advanced materials
* Lab-on-Chip and Lab-on-CMOS-Chip based devices
* Microelectromechanical systems (MEMS)-based structures
* Detection, separation and manipulation of bio-chemical agents
* Paper-based microfluidics
* Image and signal processing in bio-chip
* Applications in micro-acousto-fluidics
* Applications in micro-opto-fluidics
* Complex flow in bio-microfluidics

The manuscript for TBioCAS must be submitted on-line using the IEEE TBioCAS manuscript template and "Information for Authors", via the IEEE Manuscript Central found at the following Website address: https://mc.manuscriptcentral.com/tbcas. Authors should select the Special Issue manuscript titled “Microfluidics” instead of “Regular Paper”. The length of a manuscript must be minimum 8 and maximum 10 pages in IEEE format. For any information, please contact Dr. Maide Bucolo at the following Email address: maide.bucolo@dieei.unict.it

**Important Dates**

|  |  |
| --- | --- |
| Manuscript submission | May 1th 2017 |
| First decision to Authors | June 30th 2017 |
| Revision due (if necessary) | July 30th 2017 |
| Final notification | September 1st 2017 |
| Final manuscripts due | September 15tt 2017 |
| Special Issue publication | November 1st 2017 |

**Guest Editors**

* Maide Bucolo (University of Catania, Italy)/ maide.bucolo@dieei.unict.it
* Jinhong Guo (University of Electronic Science & Technology, China)/guojinhong@uestc.edu.cn
* Marcos Intaglietta (University of California, San Diego, USA)/ mintagli@ucsd.edu
* Wendell K. T. Coltro (Universidade Federal de Goiás, Brazil)/ wendell@ufg.br