

Parallel and Distributed solutions using GPU and Cloud platforms (PDGC)

- **Overview:**

In the last few years, a large evolution of computing processors has been noticed. On the one hand, the architecture of central processing units (CPUs) has evolved for offering a high computation power. This evolution consists in the multiplication of computing units' number within processors.

On the other hand, the graphic processing units (GPUs) present a large number of computing cores, which provide a high computation power that exceeded significantly the CPUs ones. In this context, parallel and distributed platforms and architectures have been widely used in many daily applications that require intensive computations. Indeed, several parallel and GPU-based solutions have recently been developed. Although they present a great potential of Multi-CPU or/and Multi-GPU platforms, the use and exploitation of these solutions is not so easy. Users must have the required hardware (Multi-CPU or/ Multi-GPU) and need to download, install and configure the related CPU and GPU libraries. Moreover, these solutions can be much consuming in power and energy.

The workshop is intended to be a scientific forum for PhD students and researchers working on the exploitation of GPUs, distributed and cloud platforms for improving the performance of highly intensive applications. Authors are encouraged to submit original, unpublished research or works focused on the acceleration of different use case applications that require intensive computations, by the exploitation of local or remote parallel architectures. Manuscripts should be limited to 8 pages in IEEE format and submitted through the EasyChair Conference System. Accepted and registered papers will be included in the conference proceedings and will be considered for publication in IEEE Xplore.

- **Papers submission Due :** August 31, 2017
- **Authors notification:** September 15, 2017
- **General chairs and Organizers:**
 - Dr. Sidi Ahmed Mahmoudi, University of Mons, Belgium
 - Ir. Olivier Debauche, University of Mons, Belgium
 - Ir. Mohammed Amin BELARBI, University of Mons, Belgium
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- **Main topics:**
 - GPU computing
 - Parallel and distributed computing
 - Cloud computing
 - Computer vision applications
 - Image and video processing applications
 - Medical imaging applications
 - Agricultural & Environmental applications
 - Images capture, analysis and interpretations
 - Etc.