CCGrid 2010 – Message from the Workshops Chair

A number of workshop proposals were received for CCGrid 2010, some were successful workshops hosted along previous CCGrid events, whereas others demonstrated the emergence of particular research areas in Grid, Cluster and Cloud computing over recent years. Workshops continue to play an important role in the overall CCGrid programme, as they help identify hot topics of research, stimulate research in emerging areas of interest to the community, and enable participants to discuss and establish collaborative links. As work being presented within a workshop is often at an early stage of maturity, but indicative of significant potential, such events should also allow participants to engage with the authors and generate discussion. If you are attending CCGrid this year, please try to participate in at least one workshop and present your views. It would be wonderful to see an enthusiastic and active community being represented at the workshops, helping identify research directions and challenges for subsequent years.

To ensure that good quality contributions were included, stringent acceptance criteria were adhered to by all workshop organizers. Six (out of the 8 submitted) workshop proposals were accepted this year. The choice was based on the strength of the proposals, the quality of submissions, the experience of the organizers and importance of these emerging areas to Grid, Cluster and Cloud computing research. The following workshops have been accepted for CCGrid 2010:

- **5th International Workshop on Content Delivery Networks (CDN 2010)**
  This workshop focuses on “Content Delivery in the Cloud”, with an emphasis on research trends and results in terms of design, architecture, and applications for content and service delivery in the Internet and Clouds; optimization for Cloud-based content delivery; and performance measurement methodologies.

- **4th Workshop on Desktop Grids and Volunteer Computing Systems (PCGrid 2010)**
  Desktop grids and volunteer computing systems utilize the free resources available in Intranet and Internet environments for supporting large-scale computation and storage. The purpose of this workshop is to provide a forum for discussing recent advances and identifying open issues for the development of scalable, fault-tolerant, and secure desktop Grid systems. This year's PCGrid workshop has special emphasis on the interaction of Clouds and desktop Grids. This workshop has been organized in collaboration with the highly successful European CoreGRID Research Group working in this area.

- **2nd International Symposium on Cloud Computing (Cloud 2010)**
  This workshop has a special theme of “Applied Cloud Technologies for Business and Consumer Applications” and is targeted at researchers and practitioners involved in Cloud computing technologies in addition to those harnessing Clouds for their applications in various fields to maximise performance, minimise cost and improve the scale of their endeavours.

- **Resiliency in High Performance Computing (Resilience 2010)**
  This workshop is based on the premise that High Performance Computing (HPC) carried out over Grid, Cluster and Clouds must utilize large numbers of resources and hence effective HPC in any of these paradigms must address the issue of resiliency at large-scale. The substantial growth in system scale, and the resulting increase in component count, poses a challenge for HPC system and application software with respect to fault tolerance and resilience.

- **Challenges for the Application of Grids in Healthcare (CCGrid-Health 2010)**
  With the increasing interest in the use of Grid-based technologies in Healthcare (and the very active “HealthGrid” community), this workshop aims to encourage discussion about the challenges for the construction and deployment of Grids in Healthcare, offering a contact opportunity between HealthGrid application developers and contributing to reduce the gap between the research and production Grid communities. The workshop has the goals of obtaining an overview of ongoing efforts
in health-related Grid applications; obtaining an overview of challenges (technologies, achievements, gaps, roadblocks); and identifying common requirements to encourage collaboration between Health and Computing Sciences.

- **CCGrid-Multicore 2010 (Frontiers of GPU, Multi- and Many-Core Systems)** There has recently been an increasing use of multi- and many-core microprocessors within Clusters, Clouds and Grids. Both conventional multi- and many-core processors, such as Intel Nehalem and IBM Power7 processors, and unconventional many-core processors, such as NVIDIA Tesla and AMD FireStream GPUs. The aim of this workshop is to discuss issues such as: how to optimize applications for conventional multi- and many-core processors? How does one re-engineer applications to take advantage of the tremendous computing power of a GPU in a reasonable cost-benefit ratio?, and What are effective ways of using GPUs as accelerators?

The workshops also include invited and keynote speakers – from active researchers such as Geoffrey Fox, David Abramson and others. It is also interesting to see a combination of university, industry and national laboratory participation on the programme and organizing committees of the workshops mentioned above.

I would like to thank Rajkumar Buyya and his team (James Broberg, Suraj Pandey and Mukaddim Pathan) with their near zero-latency email responses (!) to my queries, and all the workshop organizers. It has been a pleasure to work with all of you this year.

Enjoy the workshops this year – and be sure to participate actively!

Professor Omer F. Rana, Cardiff University, UK

CCGrid 2010 Workshops Chair