Medellín, April 19th, 2011

**Archana Bharathan**

Rutgers University

Ms. Bharathan,

The overall goal of the research is to investigate programming models for, and development of applications on federated clouds. Specifically, the student will build on the CometCloud infrastructure ([www.cometcloud.org](http://www.cometcloud.org)) and research programming abstractions to develop and deploy scientific applications on dynamically federated clouds enabled by CometCloud. Possible applications models explored include data-intensive applications based on MapReduce as well as many-task, parameter sweep and ensemble applications. The study will result in code as well as in reports and papers describing the design, implementation and performance evaluation of the applications. The study will be conducted on the distributed data-center testbed at CAC and will also possibly use the Amazon EC2 public cloud. The student will be jointly advised by Professor Manish Parashar and Dr. Ivan Rodero.

Upon coming back to Colombia, Alejandro will apply the research that he will conduct at Rutgers in the following ways:

1. The conducted research will serve as the practical training period for Alejandro. This is one of the requirements for his graduation at EAFIT.
2. He will give at least one talk, addressed to students, telling them about his experience, both on the professional and the personal levels.
3. He will also give a talk to the faculty telling him about the technical aspects of his research. It is likely that he will be able to continue pursuing the same area within the laboratory for Networks and Distributed Systems at EAFIT. If this process is successful, we may establish research links between Prof. Parashar's laboratory and the lab at EAFIT, leading to future further collaboration.

The research will be evaluated by the professional practices department at EAFIT, they will make periodic checks to see how the student is doing, and then after the visit they will ask for an evaluation from professor Parashar.