LEHIGH
U N I V E R S I T Y

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Victoriano Pagoaga Lamadrid
Subdirección de Asignación de Becas
Dirección Adjunta de Formación de Cientificos y Tecnólogos, CONACyT
Av. Insurgentes Sur 1582, 1er Piso
Col. Crédito Constructor
03940 México, D.F.

RE: Visiting student Dagoberto R. Quevedo-Orozco

Dear Mr. Pagoaga Lamadrid,

This letter is to verify that Dagoberto Ramón Quevedo-Orozco, full-time student of the program "Masters of Science in Systems Engineering" from Universidad Autónoma de Nuevo León (UANL), did his academic research stay in my research group during the period from August 1, 2013 to December 19, 2013. During his stay, the student worked in areas related to his current master's thesis, entitled "A Solution Method for the Capacitated p-Center Problem, achieving the following objectives:

- Study the theoretical and algorithmic fundamentals of the column generation and propose a method of solution for the problem under study.
- Install and configurate COIN-OR and DipPy framework.
- Implement a Branch-price-and-cut for the Capacitated p-Median Problem and Capacitated p-Center Problem with limited functionality.

During this period, the student worked under my supervision in the research group, which has extensive experience in optimization tools and has worked on issues related to his thesis problem. In addition, the student attennded a graduate course related to this area.

The discussions and interactions Dago had with the rest of my research group during his visit were beneficial for all and I thank for the opportunity his visit provided for us to understand and contribute to his work.

Sincerely,

Theodore K. Ralphs
Associate Professor
Industrial and Systems Engineering
Lehigh University