

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2654649

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	AGREEMENT
CONVEYING PARTY DATA	
Name	Execution Date
HP AND CINVESTAV	01/30/2009
RECEIVING PARTY DATA	
Name:	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.
Street Address:	11445 COMPAQ CENTER DRIVE WEST
City:	HOUSTON
State/Country:	TEXAS
Postal Code:	77070
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13456610
CORRESPONDENCE DATA	
Fax Number:	(970)778-4063
Phone:	(541)715-8443
Email:	pto.assignments@hp.com
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>	
Correspondent Name:	HEWLETT-PACKARD COMPANY
Address Line 1:	3404 E. HARMONY ROAD MS 35
Address Line 2:	INTELLECTUAL PROPERTY ADMINISTRATION
Address Line 4:	FORT COLLINS, COLORADO 80528
NAME OF SUBMITTER:	DEBBIE SYRMIS
Signature:	/Debbie Syrmis/
Date:	12/19/2013
Total Attachments: 4 source=Redacted Collaboration Agreement#page1.tif source=Redacted Collaboration Agreement#page2.tif source=Redacted Collaboration Agreement#page3.tif source=Redacted Collaboration Agreement#page4.tif	

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RESEARCH COLLABORATION AGREEMENT

1. INTRODUCTION

This Agreement is made as of January 20, 2009 by and between Hewlett-Packard Company, a Delaware Corporation having a place of business at 1501 Page Mill Road, Palo Alto CA 94304 ("HP"), and Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV) an academic institution having an address at Av. Instituto Politécnico Nacional 2508, Col. San Pedro Zacatenco, 07360, México, D.F. ("University"). Each of the University and HP will be hereafter referred to as "Parties."

The Parties desire to undertake a research collaboration effort in the following field of research: very large-scale mixed integer programming problems, and business analytics, as set forth in more detail in any related Research Proposals.

The Parties desire that the University shall use its efforts during the collaboration to achieve the following results: advance researches in the above mentioned areas consisting of model building and efficient algorithms.

[REDACTED]

[REDACTED]

A Party shall be permitted to change its principal researcher or members of their collaboration teams provided that the Party who seeks to make the change has obtained the prior written permission of the other Party.

This Agreement is entered into to set forth certain binding terms and conditions relating to work done by members of each Party's collaboration teams in the performance of this Agreement, including ownership of any resultant intellectual property and the Parties' obligations regarding the receipt and use of confidential information.

In connection with anticipated research, the Parties shall share their insights into problems and issues facing the industrial and corporate community. The parties may share their pre-existing insights into the solutions of these problems. The Parties shall conduct research activities towards addressing and solving such problems and issues. The Parties shall share research results for such results as are obtained in the course of this collaboration.

In connection with anticipated research and development, it is expected that one Party (the "Employing Party") may send one or more of its employees ("Visiting Researcher(s)") to work for a period of time at a facility of the other party (the "Hosting Party"), however, before a Party may send a Visiting Researcher, the Party must obtain the prior written consent of the Hosting Party. All Visiting Researchers shall be considered to be members of the Employing Party's collaboration team. This Collaboration Agreement is intended to govern the relationship of the Parties where (a) the Visiting Researcher(s) is not changing employment or otherwise rendering professional services for fee to the Hosting Party, and (b) in absence of another agreement specific to the work being performed, e.g., in absence of visiting researcher terms of a joint development or sponsored research agreement between the Parties that by its terms specifies the work being performed hereunder.

2. WORK AND TRAVEL TERMS

- a. Each Party and its employees shall be considered to have independent contractor status with respect to the other Party. The Employing Party shall at all times remain responsible for the salary, benefits, travel expenses, living expenses, medical insurance, tax withholding and/or treatment of visiting researchers, and the Hosting Party shall have no responsibility for the foregoing. These terms shall not prevent the Parties by and between themselves from agreeing to a fee structure for certain work or for sharing of expenses, pursuant to an advance written estimate, but any such fees shall occur between the Hosting Party to the employing party and shall not involve the visiting researcher.
- b. For long term visits by a Visiting Researcher (what will be considered to be "long term" will be agreed to by the Parties), the Hosting Party will agree in writing with the Employing Party that the Hosting Party will provide a desk, work space, phone, computer, and such other items as may reasonably be requested or needed for performance of work by the visiting researcher at the hosting company's site.
- c. The period of time spent by a visiting researcher working at the Hosting Party's site may be terminated at any time by the Hosting Party at its discretion, with or without notice to the Employing Party or the Visiting Researcher.
- d. Any equipment loaned to a Visiting Researcher by the Hosting Party shall remain the property of the Hosting Party, and shall be returned upon the termination of the Visiting Researcher's stay.

3. CONFIDENTIAL INFORMATION AND INTELLECTUAL PROPERTY

- a. Any intellectual property conceived or created by a member of the collaboration team shall on a worldwide basis be owned by HP. That is to say, if intellectual property is conceived or created jointly by a member of the collaboration team of University and a member of the collaboration team of HP, then University shall assign to HP all right, title, and interest in and to such intellectual property. If intellectual property is solely conceived or created by one or more employees of HP, then such intellectual property will be solely owned by HP. If intellectual property is solely conceived or created by one or more employees of University, then such intellectual property will be solely owned by HP and University shall assign to HP all right, title, and interest in and to such intellectual property. HP shall grant to University a fully paid-up, royalty-free, worldwide, perpetual license under intellectual property that is assigned by University to HP, with the license granting the University the right to use the intellectual property for academic studies and research purposes of University but this license shall not include any right of sublicense. For software, the licenses to University shall further include the right to copy and to make derivative works.
- b. The term "intellectual property," as used in this Agreement, shall include on a worldwide basis all inventions, ideas, works of authorship, know-how, moral rights, and any related rights such as patents, copyrights and trade secrets.
- c. Confidential Information. Neither Party nor their respective employees shall disclose to third parties any person or entity any confidential information (whether in written, oral, electronic or other form), which is obtained from the other Party or otherwise prepared or discovered through access to the other company's Assets/Systems, or while on the other Party's premises. Members of a Party's collaboration team shall use the other Parties Assets/Systems, including information storage and retrieval systems, only for the purposes of performing their duties under this Agreement. The Parties understand and acknowledge that a visiting researcher may be exposed to confidential information that is normally behind closed doors and may not be labeled with a confidentiality legend (because it was never

intended to be shared). Therefore, each party agrees that it and its employees shall regard as confidential information any information of a Hosting Party that is (a) labeled to indicate confidentiality, or is otherwise designated in writing as confidential within thirty days of disclosure, or (b) if unlabeled at the time of disclosure or access, is of such a nature that a reasonable person ought to suspect the information is sensitive, confidential or not available to the public. A Party shall use reasonable measures to protect confidential information, including at least those measures that the Party applies to its own information of a like nature. A Party's confidentiality obligation shall not extend to information that is independently developed by that Party, is independently received from another third party with no confidentiality obligation, or becomes publicly available through no fault of the receiving Party.

- d. Each Party shall ensure that it has adequate agreements and protections in place with those of its employees who become Visiting Researchers sufficient to comply with this agreement, including but not limited to confidentiality agreements and agreements giving ownership of intellectual property to the employer or otherwise giving the employer the right to grant to the other Party the licenses that are provided for in this Agreement.
- e. A Party's obligation for confidentiality for a particular item of confidential information shall endure for the term one year after the receipt of the confidential information to the other Party.

4. PUBLICATION

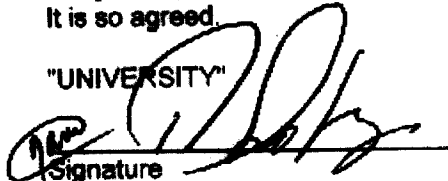
Notwithstanding Section 3, above, a Party shall be permitted to publish information provided that it provides the other Party with advance written notice of the providing Party's intent to publish and affords the other Party with an adequate opportunity to review and screen the intended publication in advance of its publication for the purpose of determining whether the proposed publication contains intellectual property or confidential information of the other Party. If the other Party determines that the proposed publication does contain the other Party's intellectual property or confidential information, it will so notify the providing Party in writing, and the Providing Party will remove or redact any confidential information or intellectual property of the other Party as a condition for publication. If the other Party fails to respond within one (1) month after having been provided with a copy of the proposed publication, then the providing Party may assume that the other Party does not object to the proposed publication and may proceed accordingly.

5. MISCELLANEOUS

This document integrates the Parties' understanding with respect to members of the collaboration teams, and with respect to Visiting Researchers, and it may be only be amended in writing, via a formal document executed by both Parties.

The Employing Party agrees to furnish papers and assistance, e.g., documents relating to right to work in the US, or such other jurisdiction as may be applicable, as may be necessary to enable the Hosting Party to comply with tax and immigration requirements applicable to the Visiting Researcher(s), the Hosting Party's site, or the work performed.
It is so agreed.

f.s.
"UNIVERSITY"

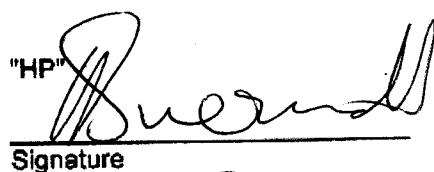

Signature

Rene Asomora Palacio
Printed Name

Director
Title

1/30/09

"HP"


Signature

f.s.
Jans Suermondt
Printed Name

Lab Director
Title:

1/30/09

Research Proposal

This Research Proposal is an attachment to the Research Collaboration Agreement between HP and the University made as of January 20, 2009.

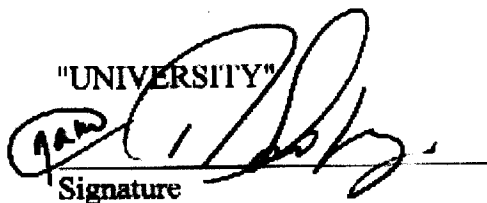
Very Large Scale Dynamic and Stochastic Generalized Workforce Matching Problems and Efficient Modeling Language for Resource Allocation



The problem of matching future availability of employees with future job requirements is quite complex since HP has hundred of thousands of employees in delivery roles, with thousands of skills distributed in countries all over the world; hence the number of combinations of people, skill, time, and location is astronomically large. The other challenge of matching future availability of employees with future job requirements is that supply and demand is uncertain; consequently an astronomically large problem needs to be solved multiple times to address different possible realizations of supply and demand.

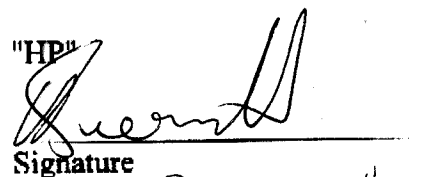
We propose to develop efficient algorithms to tackle the very large scale workforce matching problem under uncertainty. In addition, we want to develop an efficient modeling language for resource allocation problems allowing workforce planners to impose new rules and constraints on a resource allocation mathematical model without the need of a mathematical optimization expert writing the underlying equations. Our research will leverage from the research taking place on Bidding Languages for Auctions, since an auction is an instance of a resource allocation problem.

The outcomes of our collaboration will be HP proprietary algorithms for workforce matching problems, and tighter MIP formulations of the workforce planning problems. We also expect to develop a modeling language for workforce allocation problems. Last but not least we plan to publish our research in refereed journal and invited talks in top mathematical programming and operations research conferences.

"UNIVERSITY"

Signature

Rene Asomoza Palacios
Printed Name

Director
Title

"HP"

Signature

Jaap Suermondt
Printed Name

Lab Director
Title

1/30/09

f.s.