#### 501885321 04/11/2012

### PATENT ASSIGNMENT

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| SUBMISSION TYPE:      | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT     |

## **CONVEYING PARTY DATA**

| Name             | Execution Date |
|------------------|----------------|
| Honghao Tan      | 03/20/2012     |
| Anthony H. Heap  | 03/16/2012     |
| Sean W. McGrogan | 03/15/2012     |
| Brian R. Medema  | 03/20/2012     |

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#### PROPERTY NUMBERS Total: 1

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 13444773 |

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### Total Attachments: 3

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> **PATENT** REEL: 028030 FRAME: 0517

501885321

# ASSIGNMENT

Pursuant to an agreement with my employer, I formally assign to GM GLOBAL TECHNOLOGY OPERATIONS LLC, the entire right, title and interest, in all countries and application types, in the improvements set forth in the United States patent application P016493-PTUS-RRM entitled

A TIERED, SUBTRACTIVE METHOD TO SOLVE A LINEAR CONSTRAINT FUNCTION ASSOCIATED WITH CONTROLLING A HYBRID POWERTRAIN SYSTEM

| practitioner associate | a declaration. If the patent applicated with Customer No. 70465 to insere in parentheses (13/444.773 | ert the app | olication | number and filing date |
|------------------------|--|-------------|-----------|------------------------|
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PATENT REEL: 028030 FRAME: 0518

# ASSIGNMENT

Pursuant to an agreement with my employer, I formally assign to GM GLOBAL TECHNOLOGY OPERATIONS LLC, the entire right, title and interest, in all countries and application types, in the improvements set forth in the United States patent application P016493-PTUS-RRM entitled

# A TIERED, SUBTRACTIVE METHOD TO SOLVE A LINEAR CONSTRAINT FUNCTION ASSOCIATED WITH CONTROLLING A HYBRID POWERTRAIN SYSTEM

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|------------------------|--|-------------|--------------------------------|
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PATENT REEL: 028030 FRAME: 0519

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PATENT REEL: 028030 FRAME: 0520

**RECORDED: 04/11/2012**