A system and method for powering a vehicle, and generating and distributing energy in a roadway.

Abstract: A system and method for powering of a vehicle is disclosed. In accordance with embodiments of the present disclosure, a powering assembly may include an axle, a wheel coupled to the axle, and at least one secondary coil winding affixed to the wheel. The wheel may be configured to rotate about the axle in a plane substantially perpendicular to an axis of the axle. The at least one secondary coil may be configured such that when the wheel is proximate to an embedded conductor embedded in a roadway and carrying a first electrical current, a magnetic field induced by the first electrical current induces a second electrical current in the at least one secondary coil winding.
**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8) - B60L 9/00 (201 1.01)

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

USPC: 191/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC: 191/1 R, 2, 4, 10, 24; 104/140 (keyword limited, see terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST/PQPB, USPT, EPAB, JPAK, Google Scholar, Thomson Innovation. Search terms used: Coil, coiling, coils, electromagnet, electronic, electromagnetic, magnet, induction, power, charge, charging, recharge, recharging, road, roadway, highway, street, axle, wheel, brush, brushes, clutch, clutches, EV, HEV, RPEV, electrical, electric, hybrid.

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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<tbody>
<tr>
<td>X</td>
<td>US 4,139,071 A (TACKETT) 13 February 1979 (13.02.1979) entire document, especially: Fig 6, col 8, In 53 to col 9, In 6,., col 13, In 35-61</td>
<td>1, 11</td>
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<td>Y</td>
<td>US 2009/0009131 A1 (KISSEL) 08 January 2009 (08.01.2009) Fig 1, 2, para [0022]</td>
<td>5-10, 15</td>
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<td>Y</td>
<td>US 2007/0276556 A1 (NOEL et al) 29 November 2007 (29.1.2007) Fig 1, para [0017]-[0022], [0032]-[0036], [0044]-[0050], [0058]</td>
<td>16-26</td>
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[ ] Further documents are listed in the continuation of Box C.

Special categories of cited documents:

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**Date of the actual completion of the international search**

10 November 2011 (10.1.2011)

**Date of mailing of the international search report**

21 NOV 2011

**Name and mailing address of the ISA/US**

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Facsimile No. 571-273-3201

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