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(54) **A METHOD AND A DEVICE FOR ESTIMATING AN ORIENTATION OF A CAMERA RELATIVE TO A ROAD SURFACE**

VERFAHREN UND VORRICHTUNG ZUM SCHÄTZEN EINER AUSRICHTUNG EINER KAMERA IN
BEZUG AUF EINE FAHRBAHN

PROCÉDÉ ET DISPOSITIF PERMETTANT D'ESTIMER L'ORIENTATION D'UNE CAMÉRA PAR
RAPPORT À UNE SURFACE DE ROUTE

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- **Meuter, Mirko**
40699 Erkrath (DE)
- **Siegemund, Jan**
50825 Köln (DE)

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(74) Representative: **Robert, Vincent et al**
Aptiv Services France SAS
Aptiv EMEA Patent Department
Bâtiment Le Raspail - Paris Nord 2
22, avenue des Nations
CS 65059 Villepinte
95972 Roissy CDG Cedex (FR)

(73) Proprietor: **Aptiv Technologies Limited**
St. Michael (BB)

(72) Inventors:

- **Westerhoff, Jens**
44225 Wuppertal (DE)
- **Leßmann, Stephanie**
42349 Wuppertal (DE)

(56) References cited:
EP-A1- 2 840 550 EP-A2- 2 736 013
US-A1- 2010 157 058 US-A1- 2013 044 186
US-B1- 6 535 114

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