

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
-----X
TOYOTA MOTOR CORPORATION,

Petitioner,

IPR2013-00412
VS. IPR2013-00413
IPR2013-00416

AMERICAN VEHICULAR SCIENCES, LLC,

Patent Owner.
-----X

DEPOSITION OF
NIKOLAOS PAPANIKOLOPOULOS, PH.D.
Monday, February 24, 2014
New York, New York

Reported By:
LINDA J. GREENSTEIN
JOB NO. 89371



800.211.DEPO (3376)
EsquireSolutions.com

1 Nikolaos Papanikolopoulos, Ph.D.
2 exploited -- we had a camera mounted inside
3 the car, and we use a location of the
4 license plate with respect to the rest of
5 the car, and we tried to compute also other
6 characteristics; say, characteristics of
7 the license plate.

8 And then based on the size, we
9 try to keep the size constant, it allows us
10 to keep constant distance as part of a
11 vehicle following application.

12 Q. Did that system use a pattern
13 recognition algorithm?

14 MR. BERKOWITZ: Object to form.

15 A. Again, let me clarify since we
16 have these terms in my -- the claim
17 construction I was given. Do you want me
18 to answer --

19 Q. As you normally use that term,
20 did that system, the one that you refer to
21 in paragraph 4 of your 419 application, use
22 a pattern recognition algorithm?

23 MR. BERKOWITZ: Object to form.

24 Lack of foundation.

25 A. Normally use -- again, under the

1 Nikolaos Papanikolopoulos, Ph.D.
2 assumption of the claim construction that I
3 was given, the answer is yes.

4 Q. What about under your ordinary
5 usage of that term?

6 MR. BERKOWITZ: Object to form
7 and lack of foundation.

8 A. By using the claim construction
9 of pattern recognition, yes.

10 Q. I wasn't asking about the claim
11 construction in this case.

12 I was just asking about as you
13 would normally use that term in your
14 research, did the system of paragraph 4 use
15 a pattern recognition algorithm?

16 MR. BERKOWITZ: Object to form.
17 Lack of foundation.

18 A. Given the precision that I need
19 to provide with respect -- since we have
20 many terms which are used, I think I need
21 to stick to use of the term in my
22 declaration. So in this case, yes.

23 Q. So you've used the term "pattern
24 recognition" in some of your papers,
25 haven't you?

1 Nikolaos Papanikolopoulos, Ph.D.
2 part of the claim construction, so I'm
3 going to ask you the same clarification.

4 Q. First, as you've construed the
5 claims in this case, did your license plate
6 system involve trained pattern recognition?

7 MR. BERKOWITZ: Object to form
8 and foundation.

9 A. So given the claim construction
10 I have here, we didn't use trained pattern
11 recognition means.

12 Q. And then as you used that term
13 before these IPR matters, would you have
14 said that that used trained pattern
15 recognition?

16 MR. BERKOWITZ: Object to form
17 and lack of foundation.

18 A. The term "trained pattern
19 recognition" is not really common. I mean,
20 we use other terms, so I would say no.

21 Q. Okay.
22 How did the system detect a
23 license plate?

24 A. So I can give you my
25 recollection.

1 Nikolaos Papanikolopoulos, Ph.D.
2 perimeter of the license plate, so it was a
3 scale or a number, to I don't want to be --
4 but mainly images.

5 Q. Okay.

6 And did you have on the system
7 any data or images relating to license
8 plates?

9 A. I don't recall this, to be
10 precise.

11 One thing I recall is actually
12 we used to have rectangles, or models of
13 rectangles.

14 I don't recall exactly if we had
15 the license plates or -- and also, I'm not
16 sure in Yue Du's thesis -- I asked him do
17 this, but I'm not sure if this was ever
18 implemented.

19 Q. So it's possible in a system of
20 this type to have the system look for
21 rectangles rather than specifically compare
22 captured images to stored images of license
23 plates?

24 MR. BERKOWITZ: Object to form.
25 Foundation.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.