

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSARA INC.
Petitioner

v.

MOTIVE TECHNOLOGIES, INC.
Patent Owner

Case IPR2025-00574
Patent No. 11,875,580

**PETITIONER'S REPLY
TO PATENT OWNER'S PRELIMINARY RESPONSE**

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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Khan and Ali (“Khan/Ali”) were not properly incorporated by reference into the ’580 patent. But even if they were, the grounds still invalidate the claims because the ’580 patent does not disavow or exclude Khan/Ali’s predictive models.

I. KHAN/ALI WERE NOT PROPERLY INCORPORATED BY REFERENCE (“IBR”) INTO THE ’580 PATENT.

Contrary to PO’s position, POPR, 5-6, 9, Khan/Ali were not properly IBR into the ’580 patent. PO relies on three IBR statements across three applications to incorporate essential material. POPR, 5-6, 9. But essential material may be IBR only by way of a U.S. patent or U.S. patent application publication, which “does not itself incorporate such essential material by reference.” 37 C.F.R. § 1.57(d).

A. PO relies on an IBR statement to incorporate “essential material” into the ’580 patent.

The ’580 patent attempts to IBR essential material. Essential material is matter that describes or enables an embodiment of the invention. *See* 37 C.F.R. § 1.57(d); *Droplets, Inc. v. E*Trade Bank*, 887 F.3d 1309, 1318 (Fed. Cir. 2018). In contrast, nonessential material is “matter referred to for purposes of indicating the background of the invention or illustrating the state of the art.” MPEP § 608.01(p).I.A. Shown below, the ’580 patent IBR the ’950 application to describe “one embodiment” and multiple aspects of the alleged invention, not merely to indicate background of the invention or state of the art:

In one embodiment, if process 206 can detect at least two lanes (e.g.,

identified by three independent lane lines), process 206 can further include computing camera parameters for the device 230 that recorded the video. Further detail on computing camera properties based on detected lane lines is provided in commonly-owned application Ser. No. 17/173,950, filed Feb. 11, 2021, and incorporated by reference in its entirety.

...

Further detail on computing an IPM is provided in commonly-owned application Ser. No. 17/173,950, filed Feb. 11, 2021, and incorporated by reference in its entirety.

...

[T]he method can revert to a geometric algorithm to determine a lane width, as detailed in commonly-owned application Ser. No. 17/173,950, filed Feb. 11, 2021.

...

Details of applying an IPM to a set of image frames to detect lane lines are provided in more detail in commonly-owned application Ser. No. 17/173,950, filed Feb. 11, 2021.

...

Details of detecting object distances in step 608 were described in commonly-owned application Ser. No. 17/173,950, filed Feb. 11, 2021.

EX1001, 5:38-47, 14:34-36, 15:24-27, 15:49-52, 16:8-11.

B. The chain of IBR statements through multiple applications violates Rule 1.57(d).

Shown above, (1) the '580 patent IBR the '950 application. Additionally, (2) the '950 application IBR a provisional: "This application claims the benefit of

priority of Provisional Pat. Appl. No. 62/975,360 filed on Feb. 12, 2020, which is hereby incorporated by reference in its entirety.” EX2001, 1:8-10. And (3) the provisional improperly IBR Khan/Ali. *See* EX2002, 0007. But Rule 1.57(d) prohibits chained IBR statements like the ones PO relies on here.

Making matters worse, Khan/Ali are not directly in the provisional but are attached as Appendices A and B. The provisional states: “Embodiments of the present disclosure are described in Appendices A and B, attached hereto.” EX2002, 0007-27. Referencing appendices is also insufficient IBR because an application must use the operative root words “incorporate” and “reference.” 37 C.F.R. § 1.57(c)(1); *see also Apple Inc. v. DoDots Licensing Solutions LLC*, IPR2023-00939, Paper 12 at 10 (PTAB Jan. 3, 2024) (referencing appendices was insufficient IBR). This is yet another reason why Khan/Ali are not IBR properly.

II. EVEN IF KHAN/ALI WERE PROPERLY IBR THROUGH THIS CHAIN, THAT DOES NOT NEGATE THEIR AVAILABILITY AS PRIOR ART TO INVALIDATE THE CLAIMS.

Even if Khan/Ali were incorporated into: (1) the ’360 provisional, (2) then the ’950 application, and (3) then the ’580 patent, the Board should institute trial because, contrary to PO arguments, POPR, 25-28, Khan/Ali disclose a predictive model to identify lines in the video, as recited in claim 1.

A. Khan/Ali are still prior art.

Even if incorporated into the ’580 patent, Khan/Ali are prior art because they

were published more than one year before the '580 patent's effective filing date.

Pet., 8-9. Indeed, prior art IBR into a patent can still invalidate the claims. *Arbutus Biopharma Corp. v. ModernaTX, Inc.*, 65 F.4th 656, 660-64 (Fed. Cir. 2023).

B. The '580 patent's alleged IBR does not disavow Khan/Ali from teaching the claims.

Even if Khan/Ali are part of the '580 patent, the '580 patent did not disavow or exclude Khan/Ali's predictive models from teaching the claims. "[A]bsent a clear disavowal or alternative lexicography by a patentee, he or she 'is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning.'" *Wasica Fin. GmbH v. Continental Automotive Sys., Inc.*, 853 F.3d 1272, 1282 (Fed. Cir. 2017). Here, the applicant chose a broad term—predictive model—that should be construed according to its plain and ordinary meaning. Pet., 8.

PO alleges that the '580 patent "expressly distinguished" a geometric approach from a predictive model approach for identifying a line on the video. *See* POPR, 26 (citing EX2003, ¶¶67-69). But the '580 patent specifies that geometric processes *can* be used to identify and predict the lines. EX1001, 8:12-14, 15:24-27.

Regardless, even if the '580 patent excludes a geometric approach from the claims, Khan/Ali disclose the predictive model approach. When describing a predictive model approach shown in FIGS. 3A and 3B, the '580 patent states: "In an embodiment, the neural network is trained to predict lane and horizon key points 308." EX1001, 8:7-10. The image frames are then fitted with lane and

horizon lines based on the key points. Fitting lines to key points is precisely what Ali's horizon estimation algorithm does. EX1008, 0005 ("Fit lines to keypoints").

There should be no dispute that Khan/Ali use a predictive model to identify lines—they plainly disclose algorithms to "predict" the lines. Pet., 41; EX1007 ("predict" occurring 26 times). There should also be no dispute that Khan/Ali estimate a horizon line using these predictive models and overlay the horizon line on the video. Pet., 38, 41-42; EX1008, 0005. They disclose both: (1) "identifying one or more lines in the video using a predictive model" and (2) "the one or more lines [in the video] including a horizon line." Therefore, the Grounds invalidate the claims regardless of whether Khan/Ali are properly IBR into the '580 patent.

III. THE EXAMINER DID NOT CONSIDER KHAN OR ALI DURING PROSECUTION THROUGH A CHAIN OF IBR STATEMENTS.

PO suggests the Board should deny institution because Khan and Ali were allegedly considered during prosecution based on its allegation they were IBR into the '580 patent. POPR, 8-10. But nothing in the prosecution history suggests the Office considered Khan/Ali, and PO cannot use IBR in this way. Neither PO nor the Examiner cited Khan/Ali or included them in an IDS, and a chain of IBR statements is insufficient to meet the duty of disclosure. *Nalco Co. v. Turner Designs, Inc.*, No. 13-cv-02727 (N.D. Cal), ECF No. 24 at 5. Regardless, any prior consideration of Khan/Ali is now irrelevant for institution. Interim Processes for PTAB Workload Management, FAQ.22. The Board should institute trial.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PETITIONER'S
REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE** was served electronically via e-mail on July 17, 2025, in its entirety on the following counsel of record for Patent Owner:

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