WEB COPY



IN THE HIGH COURT OF JUDICATURE AT MADRAS

**DATED: 07-08-2025**

CORAM

**THE HON'BLE MR JUSTICE SENTHILKUMAR RAMAMOORTHY**

**CMA(PT) No. 5 of 2024**

1. Ranjani Ramesh
   96/F1, 3rd Main, 3rd Cross, Defence Colony,
   Indiranagar, Bengaluru, India.

2. Ramesh Venkatesan
   96/F1, 3rd Main, 3rd Cross, Defence Colony,
   Indiranagar, Bengaluru, India.

..Petitioner(s)

Vs

The Assistant Controller Of Patents And Designs
Patent Office Intellectual Property Building, G.S.T
Road, Guindy, Chennai 600 032.

..Respondent(s)

PRAYER: Civil Miscellaneous Appeal (Patent) filed under Section 117A of the Patents Act, 1970 praying to set aside /quash the impugned order dated 28th July 2022 passed by the Respondent in Indian Patent Application No.202141032403; and allow said Indian Patent Application No.202141032403.

For Petitioner(s): D.Ganesh Raj
S. Anand
B.P. Singh
Atul Singh Raman
Kumari Sonam

For Respondent(s): Mr.V.T. Balaji, SPC



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY



**JUDGMENT**

This appeal is directed against order dated 28.07.2022 rejecting Patent Application No.202141032403 relating to the claimed invention titled "A SYSTEM AND A METHOD FOR SYNTHESIZATION AND CLASSIFICATION OF A MICRO-MOTION". Upon filing the said application on 19.07.2021, the appellant requested the respondent to examine the said application. Upon such examination, First Examination Report (FER) dated 03.11.2021 was issued raising objections *inter alia* on grounds of lack of inventive step under Section 2(1)(ja) of the Patents Act, 1990 (the Patents Act), non-patentability and lack of sufficiency of disclosure under Sections 3(k) and 10, respectively, thereof. The appellant responded to the FER on 23.12.2021 *inter alia* by distinguishing the claimed invention from cited prior art documents D1 and D2. Pursuant to a hearing notice, the hearing was held on 03.02.2022. The appellant filed written submissions thereafter on 16.02.2022. The order impugned herein was issued in the facts and circumstances.

2. Learned counsel for the appellants invited my attention to the complete specification and pointed out that the invention relates to a system and method for identifying micro-motions to enable early detection of neuro-degenerative



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

diseases. After referring to the FER and the objections raised therein, learned counsel referred to reply dated 23.12.2021 to such FER and pointed out that the appellant had set out the features of the claimed invention and distinguished such features from those disclosed by cited prior art documents D1 and D2. He also relied on the written submissions of the appellant in this regard.

3. Thereafter, by referring to the impugned order, learned counsel submitted that the impugned order sets out the features of the claimed invention and thereafter draws reference to cited prior art documents D1 and D2. By referring to prior art D1, learned counsel submitted that this is non-patent literature in the form of an article titled "Build a Motion Heatmap Video Using OpenCV with Python". Learned counsel submitted that D1 uses a technique known as Gaussian background subtraction. He contends that the technique used in D1 is directed at resolving the problem of identifying the movement of objects or people. Therefore, he submits that D1 does not qualify as analogous prior art and should not have been taken into consideration by the respondent. As regards prior art D2, learned counsel submits that it is also non-patent literature by way of an article titled "Human Motion Gesture Recognition Algorithm in Video Based on Convolutional Neural Features of Training Images". By referring to the abstract of the article, learned counsel submits that



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

it is directed at examining minutely the movement of basketball players while dribbling, shooting, passing and the like. Consequently, he contends that D2 is also not an analogous prior art. He further submits that both the reply to the FER and the written submissions were not duly taken into consideration while entering findings in the impugned order. For all these reasons, learned counsel submits that the impugned order is liable to be set aside.

4. Mr.V.T.Balaji, learned SPC, made submissions in response. By referring to the written submissions filed on 28.07.2025, learned counsel submits that the features of prior art documents D1 and D2 are set out therein at paragraphs 5 and 6. By combining the features of D1 and D2, he submits that the claimed invention would be obvious to a person skilled in the art. He further submits that making a mosaic of the prior art was indicated in the impugned order while setting out the objections raised in the hearing notice.

5. On perusal of the FER, it is noticeable that no objections were raised therein with regard to lack of novelty, but objections were raised on the ground of lack of inventive step by citing prior art documents D1 and D2. In addition, objections were recorded with regard to alleged non-patenability under Section 3(k) of the Patents Act and with regard to the lack of sufficient disclosure under



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

Section 10 thereof. The hearing notice, on the other hand, makes reference to anticipation while retaining the objection that the claimed invention does not have an inventive step. In response to the FER, by reply dated 23.12.2021, in relevant part, the appellant endeavoured to distinguish the claimed invention from cited prior arts by stating as under:

> *"In view of the cited prior art documents **D1** and **D2**, the Applicant respectfully submits that none of the features listed in the cited prior art document D1 and D2 are any way similar to the features of the present invention. In particular, the present invention is a system and a method synthesization and classification of a micro-motion by using a communication device for collecting a plurality of video samples, a processing unit to simultaneously process the samples by using a heat mapping process, a skeletonization means, labelling means for labelling of the micro-motion videos observed in an extracted result from the said extracting means, a Eulerian Video Magnification, and a KNN classifier. Further, in accordance with the present invention - a bitwise OR image processing operator is used between the original video and the magnified video which yields a suitable heatmap that can pick up on the subtle changes in position, i.e., the small motions of the various parts."*



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

6. Thereafter, in the written submissions dated 16.02.2022, the appellant proceeded to state, *inter alia,* as under:

> *"In accordance with the present invention, a system and a method synthesization and classification of a micro-motion by using a communication device for collecting a plurality of video samples, a processing unit to simultaneously process the samples by using a heat mapping process, a skeletonization means, labelling means for labelling of the micro-motion videos observed in an extracted result from the said extracting means, a Eulerian Video Magnification, and a KNN classifier wherein a plurality of key points from the skeletonization means and an intensity of colour from the date visualization technique are extracted respectively; a waveform of the said plurality of video samples collected by means of the communication device is created based on the uploaded plurality of video samples on the cloud-based server and the said data relating to waveform is extracted and passed over to the classification means to classify the waveforms; and a bitwise OR image processing operator is used between the original video and the magnified video which yields a suitable heatmap that can pick up on the subtle*



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

*changes in position, i.e., the small motions of the various parts."*

7. Before undertaking obviousness analysis, it is necessary for the first respondent/Controller to identify the person skilled in the art. Thereafter, it is necessary to identify analogous prior art. In order to identify analogous prior art, the field of invention acts as the primary guide. Apart from the field of invention, art which is reasonably pertinent to the problem sought to be resolved may also be referred to. In the case at hand, prior art D1 appears to relate to a technique for identifying the movement of objects or persons by image subtraction. D2 appears to be directed at identifying the movement patterns of sports persons while carrying out routines such as dribbling, shooting and passing in the course of playing a game. Therefore, the respondent should have considered and answered the question as to whether the same qualify as prior art. Even proceeding on the basis that the said documents qualify as prior art, the next step in obviousness analysis would be to compare the claimed invention with the cited prior arts and identify differences. Once such differences are identified, it becomes necessary to consider whether the cited prior arts contain either direct or indirect pointers which would lead a person skilled in the art to the claimed invention.



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

8. The operative portion of the impugned order is as under:

*"However the applicant has asserted that by adding the following features to the principal claim, the claimed subject matter is novel and inventive.*

*[The document D1-D2 discloses (the references in parentheses applying to this document)]*

*"In accordance with the present invention,*

*a system and a method synthesization and classification of a micro-motion by using a communication device for collecting a plurality of video samples, (Applicant to refer to D1 which talks about movement detection in a video, they uses heatmap for such detection, D1 also talks about detecting micromovements and also about error removal which may occur due some external factors like wind etc.)*

*a processing unit to simultaneously process the samples by using a heat mapping process, a skeletonization means, (D1 talks about heat map creation for motion detection framewise in video, build a motion heatmap video using opencv with python. n. In this first step, a model of the background is calculated by freezing the first frame. In this second step the next frame is being subtracted from the previous, hence, if a change (a movement) happened between the two frames, the difference of the frames will reflect the change which can be*



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY



*market by applying a filter. To remove small amounts of movements, such as the wind, a small bird flying, or some noyse a threshold is applied to the mask together with max Value)*

*labelling means for labelling of the micro-motion videos observed in an extracted result from the said extracting means, (D1 talks about result of the mask and is then added to the accum_image array, this operation is performed for each frame. The result consists of the accum_image array to store every movement that happened in the video).*

*a Eulerian Video Magnification (Kindly refer D2 which discloses a method for Human motion gesture recognition algorithm based on convolutional neural features of training images.)*

*and a KNN classifier wherein a plurality of key points from the skeletonization means and an intensity of colour from the data visualization technique are extracted respectively; (D2 Discloses Convolutional neural networks which are usually used to process data in the form of multiple arrays, such as color images composed of three two-dimensional arrays, which contain three color channels. Pixel intensity, which is commonly referred to as "R, G, B" three color channels. Hence D2 also discloses about classification of key points based on intensity of colors and other parameters.)*

*a waveform of the said plurality of video samples collected by means of the communication device is created based on the uploaded plurality of video*



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY



*samples on the cloud-based server and the said data relating to waveform is extracted and passed over to the classification means to classify the waveforms; (Kindly refer D2 Page 8, "first collect the CNN feature value signals generated by the tester during exercise, identify behavior markers, check the collected data, and select valid data; then perform feature extraction of these CNN feature value signals to form feature vectors; Finally, use these feature vectors to train the model and classify and recognize." D2 also discloses in abstract, "corresponding signal waveform characteristics, a two-stage data division method for basketball is proposed. The unit action data is extracted for analysis to realize feature extraction. In order to select the most suitable classifiers for basketball gesture recognition, the constructed feature vector uses four Different classifiers are trained to construct different classifiers to realize the division of actions." Hence D2 discloses waveforms and means to classify the wavefroms)*

*and a bitwise OR image processing operator is used between the original video and the magnified video which yields a suitable heatmap that can pick up on the subtle changes in position, i.e., the small motions of the various parts. (Applicant to refer D1 which discloses that in the second step the next frame is being subtracted from the previous, hence, if a change (a movement) happened between the two frames, the difference of the frames will reflect the change which can be market by applying a filter D1 always talks about heatmap)"*



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY



*Hence claimed subject matter lacks inventive step in view of D1-D2 and obviousness to the person skilled in the art."*

As is evident from the above extracts, specific features of the claimed invention are set out and a reference is made to features of cited prior arts in parenthesis. This is followed by the conclusion that the claimed invention lacks an inventive step in view of D1 and D2. Since the manner in which conclusions have been drawn is contrary to the established step-by-step process necessary for robust obviousness analysis, interference with the impugned order is necessary.

9. It is noticeable that in the concluding paragraph of such order, the respondent has recorded that the appellant attempted to address other requirements. The impugned order does not proceed to record any findings with regard to the other requirements noticed in the FER, such as the objection under Section 3(k) and the objections regarding sufficiency of disclosure. For all these reasons, the impugned order cannot be sustained.

10. Therefore, the impugned order dated 28.07.2022 is set aside and the matter is remanded for reconsideration on the following terms:



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

(i) In order to preclude the possibility of predetermination, an officer other than the officer who issued the impugned order shall undertake reconsideration.

(ii) Such reconsideration shall be confined to the objections raised in the FER, including in respect of cited prior arts.

(iii) Upon providing a reasonable opportunity to the appellants, a reasoned decision shall be issued within a period of three months from the date of receipt of a copy of this judgment.

(iv) There shall no be order as to costs.

**07-08-2025**

Index : Yes/No
Speaking/Non-speaking order
Neutral Citation: Yes/No

KAL



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY

To

The Assistant Controller Of Patents And Designs
Patent Office Intellectual Property Building, G.S.T Road, Guindy, Chennai 600 032.



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )

WEB COPY



**SENTHILKUMAR RAMAMOORTHY, J.**

**KAL**

**CMA(PT) No. 5 of 2024**

**07-08-2025**



https://www.mhc.tn.gov.in/judis ( Uploaded on: 11/08/2025 08:32:37 pm )