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**Datasheet for the decision
of 15 June 2026**

Case Number: T 1131/24 - 3.2.02

Application Number: 21801580.8

Publication Number: 4021288

IPC: A61B5/00, G06F17/14, G06K9/00,
G06N3/08, G16H50/20

Language of the proceedings: EN

Title of invention:

TRAINING OF COMPUTERIZED MODEL AND DETECTION OF A LIFE-
THREATENING CONDITION USING THE TRAINED COMPUTERIZED MODEL

Applicant:

Datahammer OY

Headword:

Relevant legal provisions:

RPBA 2020 Art. 13(2)

Keyword:

Amendment after summons - taken into account (no)

Decisions cited:

T 2795/19

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1131/24 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 15 June 2026

Appellant: Datahammer OY
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted/electronically
transmitted on 7 March 2024 refusing European
patent application No. 21801580.8 pursuant to
Article 97(2) EPC.**

Composition of the Board:

Chairman M. Alvazzi Delfrate
Members: A. Martinez Möller
C. Schmidt

Summary of Facts and Submissions

- I. The appeal is against the examining division's decision to refuse European patent application No. 21801580.8.
- II. In that decision, the examining division found that the independent claims of the main request and each of auxiliary requests 1 to 7 lacked an inventive step. Furthermore, it did not admit auxiliary request 8.
- III. The board summoned the appellant to oral proceedings.

In a communication under Article 15(1) RPBA dated 26 February 2026, the board provided its preliminary opinion, according to which the independent claims of the requests then on file were not inventive. Moreover, none of the requests complied with Article 83 or Article 84 EPC, either.

- IV. Oral proceedings before the board took place on 15 June 2026.

At 9.51 hrs on the day of the oral proceedings, which were scheduled to start at 10.00 hrs, the board received an e-mail from the appellant containing a "sole request", which was to replace all of its previous requests. The appellant confirmed at the beginning of the oral proceedings that this was indeed its sole request. After discussing the timing of this request and its *prima facie* allowability, the board decided not to admit it into the proceedings.

With an e-mail received at 11.29 hrs, the appellant filed a new "sole request", which was to replace its previous sole request.

The appellant's requests at the end of the oral proceedings were that the decision be set aside and that a patent be granted on the basis of the sole request filed at 11.29 hrs during the oral proceedings, or that the case be remitted to the examining division for further prosecution.

V. Claim 1 of the sole request received at 11.29 hrs reads as follows (showing amendments compared with claim 10 of the previous main request, which was also the main request in the contested decision).

1. "A method for one or more detection devices operatively connected to one or more devices for measuring biosignals and a data communications interface, characterized in that the method comprises:
- receiving (602), by the one or more detection devices, time-domain sample sequences of ~~two or more distinct biosignals~~ an electrocardiogram, ECG, signal, and a photoplethysmography, PPG, signal from a subject, ~~said time domain sample sequences of two or more distinct biosignals comprising at least two of: an electrocardiogram, ECG, signal, a thermocouple signal, electroencephalogram, EEG, signal, infrared signal, pressure signal, accelerometer signal, radar signal, ballistocardiographic signal, capnography signal, photoplethysmography signal, electrodermal activity signal, near infrared spectroscopy signal, mid infrared spectroscopy signal, transcutaneous bilirubin signal, a impedance pneumography signal, EMG signal, magnetoencephalography, MEG, signal, electrogastrogram, EGG, signal, electrical impedance tomography, EIT,~~

~~signal and an invasive blood pressure signal; wherein the time-domain sample sequences have the same overall time-span;~~

- windowing (604), by the one or more detection devices, the received time-domain sample sequences on the basis of a predefined window length, wherein the windows represent substantially simultaneous time intervals;

- generating (606), by the one or more detection devices, two-dimensional power spectral densities, 2D PSDs, of the windowed temporally overlapping time-domain sample sequences, wherein one 2D PSD is generated for each of the electrocardiogram, photoplethysmography and impedance pneumography signals on the basis of Fast Fourier Transform, FFT, using an oversampling factor ≥ 1 such that the length of the FFT is greater than the sampling frequency of the respective signal;

- generating a multi-PSD input by concatenation of the 2D PSDs;

- receiving (608), by a trained computerized model of the detection device or operatively connected to the detection device, the ~~2D PSDs~~ multi-PSD input, wherein the trained computerized model is trained on the basis [of] sepsis-labeled multi-PSD inputs ~~of 2D PSDs labeled to indicate a relationship to a life-threatening condition~~ sepsis, wherein the trained computerized model comprises a convolutional neural network, CNN;

- outputting (610), by the trained computerized model, information indicating sepsis based on the multi-PSD input ~~a life-threatening condition based on the 2D PSDs~~ processed by the trained computerized model;

- controlling (612), by the one or more detection devices, the data communications interface to indicate an increased risk for ~~a life-threatening~~

~~condition~~sepsis on the basis of the output from the trained computerized model."

Claim 6 of the sole main request received at 11.29 hrs reads as follows (showing amendments compared with claim 15 of the previous main request).

6. "A detection device ~~or a training device~~ comprising one or more interfaces configured to connect to one or more devices for measuring biosignals, a data communications interface, which are operatively connected to at least one processor, and a memory comprising instructions which, when executed by the at least one processor, cause the detection device to carry out the method according to any of claims 1 to 5.~~characterized in that when the instructions are executed by at least one processor, the detection device or the training device is causes to carry out a method in accordance with any of the claims 1 to 14.~~

VI. The appellant's arguments on admittance of the sole request received at 11.29 hrs, where relevant to the present decision, can be summarised as follows.

The board's preliminary opinion introduced new objections under Articles 83 and 84 EPC that did not form the basis of the first-instance refusal. The sole request received at 11.29 hrs on the day of the oral proceedings was a direct and proportionate reaction to these objections, addressing them specifically and restricting the claims to one concrete implementation based entirely on material that had already been disclosed. It did not create procedural complexity. On the contrary, it simplified the appeal as it replaced all prior requests. It had not been possible to file the request earlier due to the holiday periods of the

representative and the inventor, as well as the inventor's workload.

Reasons for the Decision

1. Application

1.1 Life-threatening conditions such as sepsis, cardiac arrest and seizures can be identified from changes in biosignals measured from an organism. Known methods rely on simple numerical models which provide a score. Yet these methods may require interpretation of the score, or may be sensitive to noise, resulting in a late detection of a life-threatening condition.

1.2 The patent application relates to the computer-aided detection of a life-threatening condition based on measurements of biosignals, addressing the above issues. In particular, it relates to using a computerised model trained using two-dimensional power spectral densities (2D PSDs) of windowed time-domain sample sequences of two or more distinct biosignals from subjects, wherein the 2D PSDs are labelled to indicate a relationship to a life-threatening condition.

2. Sole request - admittance

2.1 The sole request received at 11.29 hrs on the day of the oral proceedings constitutes an amendment to the appellant's appeal case after notification of the communication under Article 15(1) RPBA. Pursuant to Article 13(2) RPBA, this amendment must, in principle, not be taken into account unless there are exceptional

circumstances justified with cogent reasons by the appellant.

- 2.2 The appellant correctly pointed out that the board had raised new objections under Articles 83 and 84 EPC in its communication under Article 15(1) RPBA. Exceptional circumstances within the meaning of Article 13(2) RPBA may be acknowledged when new objections have been raised by the board (see the third paragraph of the explanatory remarks on Article 13(2) RPBA 2020, published in Supplementary publication 2, OJ 2020, page 60).
- 2.3 The sole request in question aimed to overcome the objections under Articles 83 and 84 EPC that were raised for the first time in the board's preliminary opinion issued on 26 February 2026 (i.e. 15 weeks and four days before the oral proceedings). Yet it was only filed during the oral proceedings before the board. In this regard, the situation can be compared to that in T 2795/19 (see points 2 to 4 of the Reasons).
- 2.4 Regarding the timing of filing of the sole request, the appellant referred to the separate (non-overlapping) holiday periods of the inventor and the representative, as well as the workload of the inventor. However, neither of these are valid reasons to explain why the request could not have been filed earlier and why the appellant waited until the latest possible stage in the proceedings to file this request.
- 2.5 Regarding the content of the sole request, the amendment is complex as it concerns changes to several features of independent claims 1 and 6. Most of the changes are allegedly based on passages of the description. Assessing the request would potentially

involve new discussions on compliance with Articles 84 and 123(2) EPC. Furthermore, method claim 1 of the sole request is restricted to a specific life-threatening condition and to two specific biosignals, thus creating a fresh case regarding the assessment of inventive step and sufficiency of disclosure. Indeed, the previous objection of a lack of inventive step made in both the contested decision and the board's preliminary opinion was based on a prior-art document that related to a different life-threatening condition, and the objection of insufficient disclosure raised in the board's preliminary opinion included doubts as to whether the invention worked across the breadth of the claim.

- 2.6 To properly assess the allowability of the sole request, the board would have had to adjourn the oral proceedings. Alternatively, the board would have had to remit the case to the examining division without assessing the compliance of the sole request with EPC requirements. Both of these alternatives would have unduly prolonged the proceedings and would have been detrimental to procedural economy.
- 2.7 Taking all of the above into account, the board decided not to admit the sole request received at 11.29 hrs on the day of the oral proceedings. Accordingly, the board has not granted the appellant's request for the case to be remitted to the examining division for further prosecution.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



A. Chavinier-Tomsic

M. Alvazzi Delfrate

Decision electronically authenticated