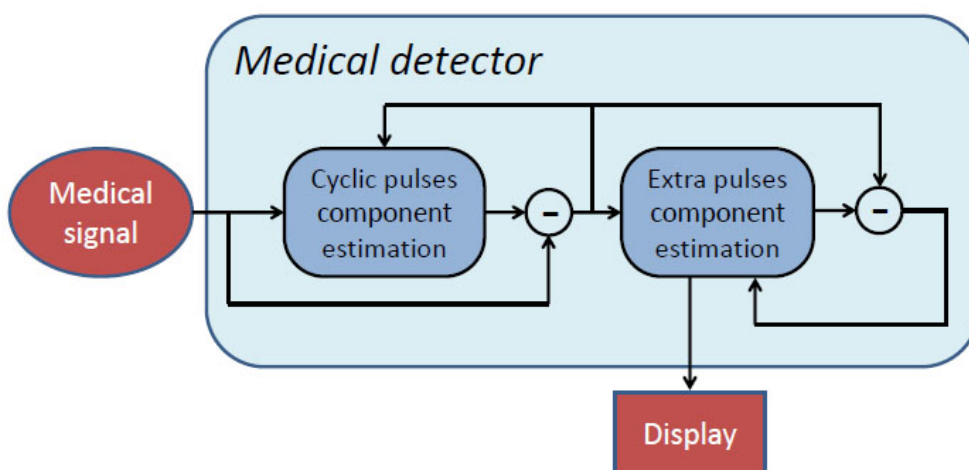


## Medical detector and method for extra pulse detection

Detection and quantification of extra pulses in medical readings via analysis-by-synthesis based signal modelling of cyclic components, and subsequent modelling of the extra pulse component.

### BACKGROUND

Extra pulses mixed to a cyclic pulse train component were found to characterize a distinct type of dysphonic (hoarse) voice quality. However, the option of automatically detecting extra pulses in irregular phonation was not considered in the past. The proposed medical detector and method for extra pulse detection accomplishes this task.



### ADVANTAGES

The detector provides an objective means to test a signal for the presence of extra pulses and it includes several features that improve reliability and accuracy. It is much less labour-intensive than manual approaches. The detector can be easily used to administer diagnostic tests.

### POTENTIAL FIELDS OF APPLICATION

- Diagnostic procedures in clinical practice
- Assessment and monitoring of voice/speech quality
- Medical data analysis
- Non-medical data analysis

**REFERENCE:**  
686.17

**COOPERATION  
OPTIONS:**

- Licensing
- Technical co-operation
- Consulting

**KEYWORDS:**

- Medical reading analysis
- Signal modelling
- Event detection
- Analysis-by-synthesis

**DEVELOPMENT STATUS:**

- Prototype
- Proof of concept

**IPR:**

European patent application  
filed

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