

P1752 Working Group Meeting

Sponsored by IEEE Engineering in Medicine & Biology (EMB) Standards Committee

Please mark your attendance at:

<https://tinyurl.com/rnaacvsz>

(see chat window)

26 April 2022

Teleconference

Attendance

Attendance is important for determining voting rights, so please remember to “check in”. This document shows attendance of current and previous calls <https://tinyurl.com/rnaacvsz> (link in the chat window).

For today: you can mark your attendance at <https://tinyurl.com/rnaacvsz> with a 0 if you are non-voting or a 1 if you are a voting member, or put your name and affiliation in the chat window to “check in”. The Secretary will mark/verify attendance to establish quorum and to include in the minutes

- If your name is not listed in <https://tinyurl.com/rnaacvsz>, OR if you are joining only via phone, please email simona@openmhealth.org with “P1752 WG call” as subject

If you attended a previous call and your attendance was not noted, please email simona@openmhealth.org

Voting membership

Attendance is important for determining voting membership

After you've attended 2 consecutive meetings you are eligible for voting membership

If you wish to become a voting member, send an email with the request to simona@openmhealth.org

You don't need to be a voting member to participate in the WG or subgroup calls

You need to be a voting member to move or second motions and to vote whenever the WG entertains a motion (e.g., to approve the agenda, to approve an action by the WG, etc.)

If you miss 2 consecutive meetings, voting membership is revoked and can be gained again by attending 2 consecutive meeting and sending a request

Accommodation can be made for special circumstances, which should be brought to the Chair's attention

IEEE Patent Policy

Participants have a duty to inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

**Early identification of holders of potential
Essential Patent Claims is encouraged**

Slide #1

Ways to inform IEEE

- **Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or**
- **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

Slide #2

Other guidelines for IEEE WG meetings

- All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
 - Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
 - Don't discuss specific license rates, terms, or conditions.
 - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - Technical considerations remain the primary focus
 - Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
 - Don't discuss the status or substance of ongoing or threatened litigation.
 - Don't be silent if inappropriate topics are discussed ... do formally object.

For more details, see *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and
Antitrust and Competition Policy: What You Need to Know at <http://standards.ieee.org/develop/policies/antitrust.pdf>

Slide #3

Patent-related information

The patent policy and the procedures used to execute that policy are documented in the:

- *IEEE-SA Standards Board Bylaws*
(<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
- *IEEE-SA Standards Board Operations Manual*
(<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)

Material about the patent policy is available at
<http://standards.ieee.org/about/sasb/patcom/materials.html>

If you have questions, contact the IEEE-SA Standards
Board Patent Committee Administrator at
patcom@ieee.org

IEEE SA Copyright Policy

IEEE SA Copyright Policy (November 2019)

- By participating in this activity, you agree to comply with the [IEEE Code of Ethics](#), all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.
 - Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
 - Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.
 - For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA Copyright Policy

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual
- IEEE SA Copyright Policy, see
 - Clause 7 of the IEEE SA Standards Board Bylaws
<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>
 - Clause 6.1 of the IEEE SA Standards Board Operations Manual
<https://standards.ieee.org/about/policies/opman/sect6.html>
- IEEE SA Copyright Permission
 - <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip>
- IEEE SA Copyright FAQs
 - <http://standards.ieee.org/faqs/copyrights.html/>
- IEEE SA Best Practices for IEEE Standards Development
 - http://standards.ieee.org/develop/policies/best_practices_for_ieee_standards_development_051215.pdf
- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
 - <https://standards.ieee.org/about/policies/opman/sect6.html>

Determination of Quorum

<https://tinyurl.com/rnaacvsz>

Approval of Agenda

1. Attendance
2. Call for Patents, Code of Ethics, Copyright Policy
3. Approval of agenda and minutes (if quorum present)
4. Update from subgroups
5. Other business

Approval of Prior Minutes

(March 15, 2021)

Update from Subgroups

Important Cardiorespiratory Health Measures

(*Relevance of Each Across Use Cases*)

	A	B	C	D	E	F	G	H	
1	Associated Health Condition	Blood pressure	Heart rate	RR interval	Heart rate Variability	O2 saturation	Respiratory rate
2									...
3									...
4									...
5									...
6									...
7									...
8									...

Use Cases

... and add other clinically important attributes identified

Athleticism

*Fitness
Performance*

Self Care

*Health Maintenance
Wellness*

Health Care

*Chronic Disease Monitoring
Post-Intervention Recovery*

Paradigm 1 Use Case Categories

Remote Detection

*Noncontact Sensing
Scanning*

Wearables

*Interval Sensing
Long-term Monitors*

Implantables

*Subcutaneous
Deep Implants*

Paradigm 2 Sensor Location Domain

Consumer Grade

*"Quantified Self"
Commercial
Casual*

'Intermediate'

*Reduced constraints
Agile technique
Flexible*

Medical Grade

*Govt certifications
"Gold standard" diagnostics*

Paradigm 3 Regulatory & Economic

...

O2 Saturation

Heart Rate

...

...

...

Heart Rate Variability

...

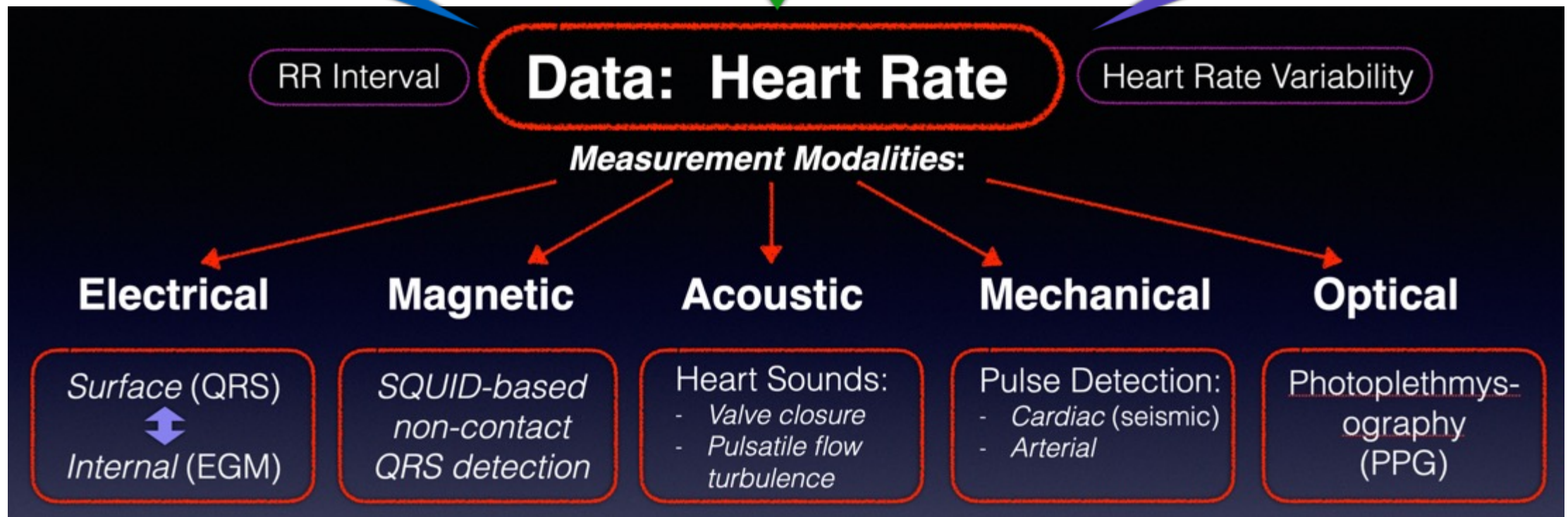
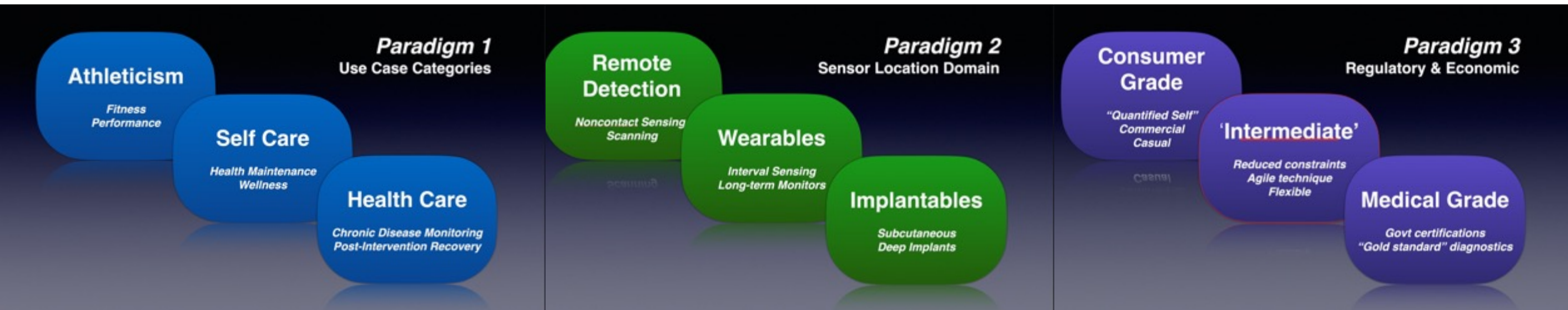
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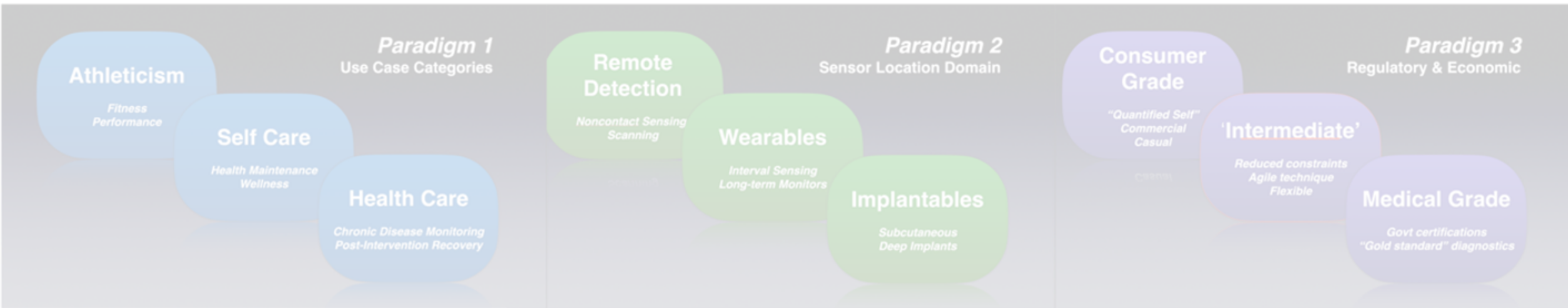
Blood Pressure

Respiratory Rate

...

RR Interval





IEEE P1752.2 CardioRespiratory - *Schema development*

- Usage cases under active development
- Focus on identification of key data types
- Coherent across broad usage paradigms
- Identify and broaden participation of stakeholders

— Heath & wellness
— Fitness & performance
— Disease monitoring

P1752.2 CARDIORESPIRATORY SUBGROUP

MARCH 31, 2022

IEEE STANDARDS ASSOCIATION



Review of scope and purpose of the cardiorespiratory subgroup, including discussion of duties (deliverables)

Presentation: “

“An Overview of Monitoring of Cardiorespiratory Status - Relevant Paradigms”

Discussion of next steps: Use case development

Next call: April 28, 2022, @ 15:00 UTC (8:00 AM Pacific)

<https://sagroups.ieee.org/1752/cardio-respiratory-subgroup/>

P1752.2 Metabolic Subgroup

- Converging on a set of measures
 - Definitions
 - Units of measure
- Glucose (mg/dL)
- Time in range (%) [TIR] <http://www.agpreport.org/agp/agpreports>
- Time above range [TAR]
- Time below range [TBR]
- Mean glucose (average)±standard deviation
- Percentage coefficient of variation for glucose ($\%CV = [(SD \text{ of glucose}) / (\text{mean glucose})]$)
- Glucose Management Indicator (GMI)
- Number of hypo/hyper events / Timestamps of alarms [to be defined more precisely]

Additional measures and metadata

- Mean amplitude of glycemic excursions (MAGE)
- Mean of daily differences (MODD)
- Sensor usage (%)
- Calibration
- mean absolute relative difference (MARD) to characterize sensor accuracy
- Temporal relationship to relevant important events

Looking ahead: drafting glucose-related schemas

Next call: Tuesday, May 10 at 8 am Pacific

<https://sagroups.ieee.org/1752/metabolic-subgroup/>

Summary of Action Items

Future Meetings

Upcoming Meetings

- P1752.2 WG call
 - Tuesday June 7 at 8 am Pacific
- Cardio-respiratory subgroup:
 - Thursday April 28 at 8 am Pacific
- Metabolic subgroup:
 - Tuesday May 10 at 8 am Pacific

Adjournment