ISO 17488:2016-10 (E)

Road vehicles - Transport information and control systems - Detection-response task (DRT) for assessing attentional effects of cognitive load in driving

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 Abbreviated terms 5

5 DRT methodology: Principles and overview 5

6 Measurement methods and procedures 6
6.1 Participants 6
6.2 Experimental setup 6
6.2.1 Non-driving experimental setup 6
6.2.2 Surrogate driving experimental setup 6
6.2.3 Driving simulator experimental setup 6
6.2.4 On-road experimental setup 6
6.3 Stimulus presentation 6
6.3.1 Stimulus presentation timing 7
6.3.2 Visual stimulus specifications 8
6.4 Response method 10
6.5 Primary driving task 11
6.6 Instructions to participants 11
6.7 Training procedure 11
6.7.1 Secondary task training 12
6.7.2 DRT training 12
6.7.3 Primary task training 12
6.7.4 Training on multitasking 12
6.8 Performance measures 12
6.9 Analysing and interpreting DRT performance data 13
6.10 Checking data quality 13
6.11 Use of DRT data in decision making 14

Annex A (normative) Rationale 15

Annex B (normative) Guidelines for selecting between variants of the DRT method 23

Annex C (normative) Additional factors affecting DRT performance 25

Annex D (informative) DRT variants 27

Annex E (informative) Summary of results from the ISO-coordinated studies 38

Bibliography 69