ISO/IEC/IEEE 21840:2019-12 (E)

Systems and software engineering - Guidelines for the utilization of ISO/IEC /IEEE 15288 in the context of system of systems (SoS)

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative References 1

3 Terms,definitions,andabbreviatedterms 1
3.1 Terms and definitions 1
3.2 Abbreviated terms 3

4 Relationship to other standards 3

5 Key concepts and application 4
5.1 Differences between systems and SoS 4
5.2 Managerial and operational independence 7

6 Application of system life cycle processes to SoS 10
6.1 Agreement processes 10
6.1.1 General 10
6.1.2 Acquisition process 12
6.1.3 Supply process 13
6.2 Organizational project-enabling processes 15
6.2.1 General 15
6.2.2 Life cycle model management process 16
6.2.3 Infrastructure management process 17
6.2.4 Portfolio management process 18
6.2.5 Human resource management process 20
6.2.6 Quality management process 21
6.2.7 Knowledge management process 22
6.3 Technical management processes 23
6.3.1 General 23
6.3.2 Project planning process 24
6.3.3 Project assessment and control process 25
6.3.4 Decision management process 27
6.3.5 Risk management process 28
6.3.6 Configuration management process 29
6.3.7 Information management process 30
6.3.8 Measurement process 31
6.3.9 Quality assurance process 32
6.4 Technical processes 33
6.4.1 General 33
6.4.2 Business or mission analysis process 36
6.4.3 Stakeholder needs and requirements definition process 37
6.4.4 System requirements definition process 39
6.4.5 Architecture definition process 41
6.4.6 Design definition process 44
6.4.7 System analysis process 46
6.4.8 Implementation process 47
6.4.9 Integration process 48

6.4.10 Verification process 49
6.4.11 Transition process 51
6.4.12 Validation process 52
6.4.13 Operation process 54
6.4.14 Maintenance process 55
6.4.15 Disposal process 56

Bibliography 58

IEEEnoticesandabstract 59