Standards Repository

Organization	Standard	Scope	Stage	Country
BSI	BS 8611:2016 Robots and robotic devices. Guide to the ethical design and application of robots and robotic systems	This British Standard gives guidance on the identification of potential ethical harm and provides guidelines on safe design, protective measures and information for the design and application of robots.	Published	Regional
CIO Strategy Council	CAN/CIOSC 100-1: 2020 (Revised) Digital Governance – Part 1	Data breaches are a serious risk for all organizations. Whether the result of inadvertent mishandling, recklessness, or cyberattack, the exposure of confidential information can have damaging and long-lasting impacts on organizations and the people whose data is leaked. This standard sets out the fundamental characteristics and attributes required of data protection systems. It includes measures to protect data while it is being held on a server and while it is being transferred between IT systems and/or organizations.	Published	CAN
CIO Strategy Council	CAN/CIOSC 101:2019™ - Ethical Design and Use of Automated Decision Systems	Specifies minimum requirements in protecting human values and incorporating ethics in the design and use of automated decision systems that use machine learning.	Published	CAN
CIO Strategy Council	CAN/DGSI 103-1:2023 Digital Trust and Identity – Part 1: Fundamentals (Second Edition)	Specifies minimum requirements and a set of controls for developing, implementing, operating, monitoring, and governing trust in systems and services that consume and assert digital identity.	Published	CAN
CIO Strategy Council	CAN/DGSI 103-2:2021 Digital trust and identity – Part 2: Delivery of healthcare services (Reaffirmed 2023)	Specifies minimum requirements for a user-centric, interoperable health network that securely binds a health care identity to strong digital credentials to facilitate appropriate and user-directed sharing of that identity.	Published	CAN
IEEE	DGSI/TS 115:2023 Technical Specification for Digital Credentials and Digital Trust Services	Digital credentials are electronic representations of the physical certificates and IDs that enable the economy to function. Held in user-controlled digital wallets, they can include electronic versions of documents like plane tickets, driver's licenses, university degrees and even certificates of incorporation for businesses. These applications are underpinned by technologies such as blockchain-based data registries and issuing and verifying systems that are collectively known as "digital trust services." This technical specification sets minimum requirements to ensure that digital credentials and trust services are interoperable between businesses and governments and create a seamless experience for users.	Published	CAN
IEEE	IEEE 1232.3™-2014 - IEEE Guide for the Use of Artificial Intelligence Exchange and Service Tie to All Test Environments (AI-ESTATE)	IEEE Guide for the Use of Artificial Intelligence Exchange and Service Tie to All Test Environments (AI-ESTATE)	Published	Global
IEEE	IEEE 1855™-2016 - IEEE Standard for Fuzzy	A new specification language, named Fuzzy Markup Language (FML), is presented in this	Published	Global

Organization	Standard	Scope	Stage	Country
	Markup Language	standard, exploiting the benefits offered by eXtensible Markup Language (XML) specifications and related tools in order to model a fuzzy logic system in a human-readable and hardware independent way.		
IEEE	IEEE 1872.2™ - IEEE Standard for Autonomous Robotics (AuR) Ontology	This standard is a logical extension to IEEE 1872-2015 Standard for Ontologies for Robotics and Automation. The standard extends the CORA ontology by defining additional ontologies appropriate for Autonomous Robotics (AuR).	Published	Global
IEEE	IEEE 1873™-2015 - IEEE Standard for Robot Map Data Representation for Navigation	A map data representation of environments of a mobile robot performing a navigation task is specified in this standard. It provides data models and data formats for two-dimensional (2D) metric and topological maps.	Published	Global
IEEE	IEEE 2089-2021™ - IEEE Standard for Age Appropriate Digital Services Framework - Based on the 5Rights Principles for Children	Provides a methodology to establish a framework for digital services when end users are children, and by doing so, tailors the services that are provided so that they are age appropriate.	Published	Global
IEEE	IEEE 2660.1-2020™ - IEEE Recommended Practices on Industrial Agents: Integration of Software Agents and Low Level Automation Functions	The recommended practices to solve the interface problem when applying industrial agents, namely, integrating intelligent software agents with low-level automation devices in the context of cyber-physical systems, are described in this recommended practice.	Published	Global
IEEE	IEEE 2830-2021™ - IEEE Standard for Technical Framework and Requirements of Shared Machine Learning	This standard defines a framework and architectures for machine learning in which a model is trained using encrypted data that has been aggregated from multiple sources and is processed by a third party trusted execution environment.	Published	Global
IEEE	IEEE 2842-2021™ - IEEE Recommended Practice for Secure Multi-party Computation	This standard provides a technical framework for Secure Multi-Party Computation	Published	Global
IEEE	IEEE 2937-2022, IEEE Standard for Performance Benchmarking for AI Server Systems	This standard provides formal methods for the performance benchmarking for AI server systems, including approaches for test, metrics and measure. In addition, this specification provides the technical requirements on tools for benchmarking.	Published	Global
IEEE	IEEE 2941-2021™ - IEEE Standard for Artificial Intelligence (AI) Model Representation, Compression, Distribution and Management	Defines AI development interface, AI model interoperable representation, coding format, and model encapsulated format for efficient AI model inference, storage, distribution, and management.	Published	Global
IEEE	IEEE 2995™ - IEEE Draft Trial-Use Standard for a Quantum Algorithm Design and Development	This trial-use standard defines a standardized method for the design of quantum algorithms.	In Development	Global
IEEE	IEEE 3652.1-2020™ -	Provides a blueprint for data usage and model	Published	Global

Organization	Standard	Scope	Stage	Country
	IEEE Guide for Architectural Framework and Application of Federated Machine Learning	building across organizations while meeting applicable privacy, security and regulatory requirements.		
IEEE	IEEE 7000-2021™ - IEEE Standard Model Process for Addressing Ethical Concerns During System Design	Establishes a process model by which engineers and technologists can address ethical consideration throughout the various stages of system initiation, analysis and design.	Published	Global
IEEE	IEEE 7002-2022™ - IEEE Approved Draft Standard for Data Privacy Process	Specifies how to manage privacy issues for systems or software that collect personal data by defining requirements that cover corporate data collection policies and quality assurance.	Published	Global
IEEE	IEEE 7005-2021™ - IEEE Standards Project for Employer Data Governance	Defines specific methodologies to help employers to certify how they approach accessing, collecting, storing, utilizing, sharing, and destroying employee data. Provides specific metrics and conformance criteria regarding these types of uses.	Published	Global
IEEE	IEEE 7007-2021™ - IEEE Standards Project for Ontological Standard for Ethically Driven Robotics and Automation Systems	Establishes a set of ontologies with different abstraction levels that contain concepts, definitions and axioms which are necessary to establish ethically driven methodologies for the design of Robots and Automation Systems.	Published	Global
IEEE	IEEE 7010-2020™- IEEE Recommended Practice for Assessing the Impact of Autonomous and Intelligent Systems on Human Well-being	The impact of artificial intelligence or autonomous and intelligent systems (A/IS) on humans is measured by this standard. The positive outcome of A/IS on human well-being is the overall intent of this standard.	Published	Global
IEEE	IEEE P2049.1™ - IEEE Draft Standards Project for Standard for Human Augmentation: Taxonomy and Definitions	Specifies the taxonomy and definitions for human augmentation. Human augmentation, also known as human enhancement, is used to refer to technologies that add to the human body and enhance human productivity or capability. Recent advancements in many technical areas have led to a large variety of implants, wearables and otherre technologies that could be classified as human augmentation.	In Development	Global
IEEE	IEEE P2049.2™ - IEEE Draft Standards Project for Human Augmentation: Privacy and Security	Specifies requirements, systems, methods, testing and verification for human augmentation to preserve the privacy and security of both consumers and non-consumers of human augmentation.	In Development	Global
IEEE	IEEE P2049.3™ - IEEE Draft Standards Project for Human Augmentation: Identity	Specifies the requirements and methods for verifying the identity of a person equipped with human augmentation technologies. Human augmentation refers to technologies that add to the human body and enhance human productivity.	In Development	Global
IEEE	IEEE P2049.4™ - IEEE Draft Standards Project for Human Augmentation: Methodologies and	Specifies methodologies and processes to prioritize ethical considerations in the creation of human augmentation technologies.	In Development	Global

Organization	Standard	Scope	Stage	Country
	Processes for Ethical Considerations			
IEEE	IEEE P2247.1™ - IEEE Draft Standard for the Classification of Adaptive Instructional Systems	This standard defines and classifies the components and functionality of adaptive instructional systems (AIS). This standard defines parameters used to describe AIS and establishes requirements and guidance for the use of these parameters.	In Development	Global
IEEE	IEEE P2247.2™ - IEEE Draft Interoperability Standards for Adaptive Instructional Systems (AISs)	This standard defines interactions and exchanges among the components of adaptive instructional systems (AISs).	In Development	Global
IEEE	IEEE P2247.3™ - IEEE Draft Recommended Practices for Evaluation of Adaptive Instructional Systems	This recommended practice defines and classifies methods of evaluating adaptive instructional systems (AIS) and establishes guidance for the use of these methods.	In Development	Global
IEEE	IEEE P2247.4™ - IEEE Draft Recommended Practice for Ethically Aligned Design of Artificial Intelligence (AI) in Adaptive Instructional Systems	This recommended practice describes ethical considerations and recommended best practices in the design of artificial intelligence as used by adaptive instructional systems.	In Development	Global
IEEE	IEEE P2671™ - IEEE Draft Standard for General Requirements of Online Detection Based on Machine Vision in Intelligent Manufacturing	This standard specifies through the general requirements of online detection based on machine vision.	In Development	Global
IEEE	IEEE P2672™ - IEEE Draft Guide for General Requirements of Mass Customization	This guide provides the definitions, terminologies, operation procedures, system architectures, key technological requirements, data requirements and applications of and related to user-oriented mass customization.	In Development	Global
IEEE	IEEE P2751™ - IEEE Draft 3D Map Data Representation for Robotics and Automation	This standard extends the IEEE 1873-2015 Standard for Robot Map Data Representation from two-dimensional (2D) maps to three-dimensional (3D) maps.	In Development	Global
IEEE	IEEE P2801™ - IEEE Draft Standards Recommended Practice for the Quality Management of Datasets for Medical Artificial Intelligence	Identifies best practices for establishing a quality management system for datasets used for artificial intelligence medical device.	In Development	Global
IEEE	IEEE P2802™ - IEEE Draft Standard for the Performance and Safety Evaluation of Artificial Intelligence Based Medical Device: Terminology	The standard establishes terminology used in artificial intelligence medical device, including definitions of fundamental concepts and methodology that describe the safety, effectiveness, risks and quality management of artificial intelligence medical device. The standard provides definitions using the following forms, such as but not limited to literal description, equations, tables, figures and legends. The standard also establishes a vocabulary for the development of future	In Development	Global

Organization	Standard	Scope	Stage	Country
		standards for artificial intelligence medical device.		
IEEE	IEEE P2807.1™ - IEEE Draft Standard for Technical Requirements and Evaluation of Knowledge Graphs	This standard defines technical requirements, performance metrics, evaluation criteria and test cases for knowledge graphs.	In Development	Global
IEEE	IEEE P2807.2™ - IEEE Draft Guide for Application of Knowledge Graphs for Financial Services	This standard defines guidelines for application of knowledge graphs for financial services. The standard specifies technical framework, workflows, implementation guidelines and application scenarios of financial knowledge graphs.	In Development	Global
IEEE	IEEE P2807.4™ - IEEE Draft Guide for Scientific Knowledge Graphs	This standard defines guidelines for application of knowledge graphs for financial services. The standard specifies technical framework, workflows, implementation guidelines and application scenarios of financial knowledge graphs.	In Development	Global
IEEE	IEEE P2807™ - IEEE Draft Framework of Knowledge Graphs	This standard defines the framework of knowledge graphs (KGs).	In Development	Global
IEEE	IEEE P2817™ - IEEE Draft Standards Project Guide for Verification of Autonomous Systems	Identifies existing best practices and provides instruction sets that define valid verification processes for a range of autonomous system configurations.	In Development	Global
IEEE	IEEE P2840™ - IEEE Draft Standard for Responsible AI Licensing	The standard describes specifications for the factors that shall be considered in the development of a Responsible Artificial Intelligence (AI) license.	In Development	Global
IEEE	IEEE P2841™ - IEEE Draft Framework and Process for Deep Learning Evaluation	This document defines best practices for developing and implementing deep learning algorithms and defines a framework and criteria for evaluating algorithm reliability and quality of the resulting software systems	In Development	Global
IEEE	IEEE P2863™ - IEEE Draft Recommended Practice for Organizational Governance of Artificial Intelligence	This recommended practice specifies governance criteria such as safety, transparency, accountability, responsibility and minimizing bias, and process steps for effective implementation, performance auditing, training and compliance.	In Development	Global
IEEE	IEEE P2888.6™ - IEEE Draft Standard for Holographic Visualization for Interfacing Cyber and Physical Worlds	This standard defines representations of holographic content to provide interfaces between Cyber and Physical Worlds for objects, which may exist either in Cyber or Physical Worlds.	In Development	Global
IEEE	IEEE P2894™ - IEEE Draft Guide for an Architectural Framework for Explainable Artificial Intelligence	This guide specifies an architectural framework that facilitates the adoption of explainable artificial intelligence (XAI).	In Development	Global
IEEE	IEEE P2945™ - IEEE Draft Standard for Technical Requirements for Face Recognition Systems	Specifies an architecture and technical requirements for face recognition systems. A general technical architecture is defined. Functional, performance, and security requirements are defined. This standard is	In Development	Global

Organization	Standard	Scope	Stage	Country
		applicable to the design and application of face recognition systems.		
IEEE	IEEE P2975™ - IEEE Draft Standard for Industrial Artificial Intelligence (AI) Data Attributes	Defines attributes related to industrial Artificial Intelligence (AI) data that facilitates the classification, association, and mapping towards value creation using data. The attributes include but are not limited to data source, type, ownership, sampling frequency, traceability, privacy attributes for modeling, sampling, shareability and its use in AI algorithms.	In Development	Global
IEEE	IEEE P3110™ - IEEE Draft Standard for Computer Vision - Algorithms, Application Programming Interfaces, and Technical Requirements for Deep Learning Framework	This standard researches algorithm development process in the field of computer vision, establishes the application programming interfaces (API) model of the computer vision systems, specifies the functional and technical requirements of the API between the computer vision algorithm, the deep-learning framework and the data set in the process of algorithm training phase.	In Development	Global
IEEE	IEEE P3119™ - IEEE Draft Standard for the Procurement of Artificial Intelligence and Automated Decision Systems	This standard establishes a uniform set of definitions and a process model for the procurement of Artificial Intelligence (AI) and Automated Decision Systems (ADS) by which government entities can address socio-technical and responsible innovation considerations to serve the public interest.	In Development	Global
IEEE	IEEE P3135™ - IEEE Draft Standard for Specifying Requirements for Neurofeedback Systems Design	This standard defines the requirement specifications for the design and development of neurofeedback systems, as well as the requirements for conformity assessment.	In Development	Global
IEEE	IEEE P3141™ - IEEE Draft Trial-Use Standard for 3D Body Processing	This standard addresses the anthropometric and topo-physiological attributes that contribute to 3D body processing quality of experience, as well as identifying and analyzing metrics and other useful information, as well as data relating to these attributes.	In Development	Global
IEEE	IEEE P3333.1.3-2022™ - IEEE Approved Draft Standard for the Deep Learning Based Assessment of Visual Experience Based on Human Factors	This standard defines deep learning-based metrics of content analysis and quality of experience (QoE) assessment for visual contents.	Published	Global
IEEE	IEEE P7001-2021™ - IEEE Standards Project for Transparency of Autonomous Systems	Describes measurable, testable levels of transparency, so that autonomous systems can be objectively assessed and levels of compliance determined.	Published	Global
IEEE	IEEE P7003™ - IEEE Draft Standards Project for Algorithmic Bias Considerations	Provides developers of algorithms for autonomous or intelligent systems with protocols to avoid negative bias in their code.	In Development	Global
IEEE	IEEE P7004™ - IEEE Draft Standards Project for Child and Student Data Governance	Defines specific methodologies to help users certify how they approach accessing, collecting, storing, utilizing, sharing, and destroying child and student data. Provides specific metrics and conformance criteria regarding these types of uses.	In Development	Global

Organization	Standard	Scope	Stage	Country
IEEE	IEEE P7008™ - IEEE Draft Standards Project for Ethically Driven Nudging for Robotic, Intelligent and Autonomous Systems	Establishes a delineation of typical nudges (currently in use or that could be created). Contains concepts, functions and benefits necessary to establish & ensure ethically driven methodologies for the design of robotic, A/IS incorporating them.	In Development	Global
IEEE	IEEE P7009™ - IEEE Draft Standards Project for Fail-Safe Design of Autonomous and Semi-Autonomous Systems	Establishes a practical, technical baseline of specific methodologies and tools for the development, implementation, and use of effective fail-safe mechanisms in autonomous and semi-autonomous systems.	In Development	Global
IEEE	IEEE P7011™ - IEEE Draft Standards Project for the Process of Identifying and Rating the Trustworthiness of News Sources	Provides semi-autonomous processes using standards to create and maintain news purveyor ratings for purposes of public awareness. It standardizes processes to identify and rate the factual accuracy of news stories.	In Development	Global
IEEE	IEEE P7012™ - IEEE Draft Standards Project for Machine Readable Personal Privacy Terms	Identifies/addresses the manner in which personal privacy terms are proffered and how they can be read and agreed to by machines.	In Development	Global
IEEE	IEEE P7014™ - IEEE Draft Standards Project for Ethical considerations in Emulated Empathy in Autonomous and Intelligent Systems	Defines a model for ethical considerations and practices in the design, creation and use of empathic technology, incorporating systems that have the capacity to identify, quantify, respond to, or simulate affective states.	In Development	Global
IEEE	IEEE P7015™ - IEEE Draft Standard for Data and Artificial Intelligence (AI) Literacy, Skills, and Readiness	Creates a common understanding of data and AI literacy so that it can be systematically included into curricula and educational standards of schools, teacher training, higher education, and further education.	In Development	Global
IEEE	IEEE P7030™ - Draft Recommended Practice for Ethical Assessment of Extended Reality (XR) Technologies	This standard establishes a uniform set of definitions, and a methodology to assess the socio-technical considerations and practices regarding (“XR”) Extended Reality (Augmented Reality, Virtual Reality, Immersive Web and Spatial Web technologies) where this methodology shapes the positive design of XR systems.	In Development	Global
IEEE	IEEE P7130™ - IEEE Draft Standard for Quantum Technologies Definitions	This standard addresses quantum technologies specific terminology and establishes definitions necessary to facilitate clarity of understanding to enable compatibility and interoperability.	In Development	Global
ISO/IEC	ISO/IEC 20546:2019™ - Information technology - Big Data - Overview and Vocabulary	Provides a set of terms and definitions needed to promote improved communication and understanding of this area. It provides a terminological foundation for big data-related standards, and a conceptual overview.	Published	Global
ISO/IEC	ISO/IEC 20547-3:2020 Information technology — Big data reference architecture — Part 3: Reference architecture	This document specifies the big data reference architecture (BDRA). The reference architecture includes concepts and architectural views.	Published	Gobal
ISO/IEC	ISO/IEC 20547-3:2020™ - Information technology — Big data	This document specifies the big data reference architecture (BDRA). The reference architecture includes concepts and architectural views.	Published	Global

Organization	Standard	Scope	Stage	Country
	reference architecture — Part 3: Reference architecture			
ISO/IEC	ISO/IEC 22989™ - Information technology — Artificial intelligence — Artificial intelligence concepts and terminology	Foundational standard	In Development	Global
ISO/IEC	ISO/IEC 23053™ - Framework for Artificial Intelligence (AI) Systems Using Machine Learning (ML)	Foundational standard	In Development	Global
ISO/IEC	ISO/IEC TR 20547-1:2020 Information technology — Big data reference architecture — Part 1: Framework and application process	This document describes the framework of the big data reference architecture and the process for how a user of the document can apply it to their particular problem domain.	Published	Gobal
ISO/IEC	ISO/IEC TR 20547-1:2020™ - Information technology — Big data reference architecture — Part 1: Framework and application process	This document describes the framework of the big data reference architecture and the process for how a user of the document can apply it to their particular problem domain.	Published	Global
ISO/IEC	ISO/IEC TR 20547-2:2018™ - Information technology --Big data reference architecture --Part 2: Use cases and derived requirements	Provides examples of big data use cases with application domains and technical considerations derived from the contributed use cases.	Published	Global
ISO/IEC	ISO/IEC TR 20547-5:2018™ - Information technology --Big data reference architecture --Part 5: Standards roadmap	Describes big data relevant standards, both in existence and under development, along with priorities for future big data standards development based on gap analysis.	Published	Global
ISO/IEC	ISO/IEC TR 24028:2020 Information technology — Artificial intelligence — Overview of trustworthiness in artificial intelligence	This document surveys topics related to trustworthiness in AI systems. It briefly surveys the existing approaches that can support or improve trustworthiness in technical systems and discusses their potential application.	Published	Gobal
ISO/IEC	ISO/IEC TR 24028:2020™ - Information technology — Artificial intelligence — Overview of trustworthiness in artificial intelligence	This document surveys topics related to trustworthiness in AI systems. It briefly surveys the existing approaches that can support or improve trustworthiness in technical systems and discusses their potential application.	Published	Global
ISO/IEC	ISO/IEC TR 24029-1:2021 Artificial Intelligence (AI) — Assessment of the robustness of neural networks — Part 1:	This document provides background about existing methods to assess the robustness of neural networks.	Published	Gobal

Organization	Standard	Scope	Stage	Country
	Overview			
ISO/IEC	ISO/IEC TR 24029-1:2021™ Artificial Intelligence (AI) — Assessment of the robustness of neural networks — Part 1: Overview	This document provides background about existing methods to assess the robustness of neural networks.	Published	Global
ISO/IEC	ISO/IEC TR 24030:2021 Information technology — Artificial intelligence (AI) — Use cases	This document provides a collection of representative use cases of AI applications in a variety of domains.	Published	Global