

Towards an Inclusive Privacy Framework for Electronic Health Record Systems: Integrating Ontology and Machine Learning Techniques

Preface

Welcome to the Special Issue of Advances in Computational Design (ACD) devoted to “Towards an Inclusive Privacy Framework for Electronic Health Record Systems: Integrating Ontology and Machine Learning Techniques”.

The quick shift to digital healthcare systems has created new chances to improve patient care, diagnosis, and medical research. However, this change has also triggered serious concerns about the privacy, security, and interoperability of Electronic Health Records (EHRs). As healthcare data grows more complex and connected, we need smart frameworks that can ensure accessibility while keeping information confidential.

This special issue, “Towards an Inclusive Privacy Framework for Electronic Health Record Systems: Integrating Ontology and Machine Learning Techniques,” brings together research that connects healthcare informatics, artificial intelligence, and data governance. The contributions in this issue investigate new ontology-driven methods for organizing medical data, machine learning models for secure data sharing and anomaly detection, and privacy-preserving techniques to maintain patient trust and comply with global standards.

The papers emphasize the importance of inclusive and ethical AI design in creating sustainable healthcare systems. By combining semantic interoperability, adaptive learning models, and robust privacy frameworks, this issue aims to push forward the best practices in secure health data management. We thank all authors, reviewers, and editorial members for their valuable contributions to this impactful compilation.

Guest Editors

Dr. P. Raviraj

Professor & Head,

Dept. of Computer Science & Engineering

GSSS Institute of Engineering and Technology for Women,

K R S Road, Metagalli,

Mysuru – 570016, Karnataka State, India

E-mail: raviraj@gsss.edu.in

Dr. Jingshan Huang

Professor, School of Computing

Professor, College of Medicine

University of South Alabama

307 N University Blvd, United States

Email: huang@southalabama.edu

Dr. Maode Ma

Research Professor

KINDI Center for Computing Research,

College of Engineering

Qatar University, Doha, Qatar

Email: acadmmd@gmail.com