The rapidly increasing population demands innovative and advanced healthcare devices with advanced technological trends to fulfill the current and future medical demands. The significance of smart healthcare lies in the healthy lifestyle of an individual on the planet. Smart healthcare is rapidly transforming from the traditional clinical-fanatical system to a distributed patient, intense form. The streamlined medical and sensor data are gaining more attention across the medical sectors, physicians, and smart hospitals for their remarkable features.

It is necessary to emphasize the essentiality of advanced medical and sensor data in the rising healthcare applications to enrich health development. The adoption of data from wireless sensors in healthcare applications is widely used for monitoring, diagnosis, screening, and executing better treatment procedures. Researchers encountered that those eminent sensor data applications are expected to improvise clinical services in clinics. The advanced sensors and sensing systems enabled with data analytics are increasingly important in performing and solving complexities that aid in the beneficial decision-making processes in the emerging smart medical sectors. The advent of streamlined sensor data is the output of the medical sensor devices that helps in the amalgamation of data, the fusion of data information dealing with the health monitoring for better treatments. Instantaneous health tracking system indulges with the data processing and data analysis from smart wearable devices for the easy diagnosis and prediction of diseases. The intervention of medical data starts up with the patient's Electronic Health Record (HER) to collect data on wellness and fitness to monitor an individual's health status. The numerous technological trends like IoT (Internet of Things), AI (Artificial Intelligence), and ML (Machine Learning) emerge as an effective solution to support medical data, which helps clinicians provide greater chances for easy recovery from physical and mental illness.

Despite the many beneficial trends, implementation of critical technologies limitations and drawbacks need to be addressed. Limitations such as privacy threats, data misinterpretation, and technological error can be addressed. Researchers and scholars are invited to present a research framework on this ground. The special issue provides various opportunities to practitioners to develop both conceptual and theoretical understanding of sensors and medical data to fetch sustainable smart healthcare services.

Topics of interest:

- Contribution of Biomedical Informatics for smart healthcare services
- Insights of communication and information technologies for the smart healthcare

- Challenges faced with the implications of critical technologies in the field of biomedical healthcare
- Biomedical and Healthcare Informatics: trends, applications, and opportunities
- Future perspectives of healthcare applications in the enhancement of patient monitoring
- Successful digital transformation of Biomedical sectors in the developing countries
- Benefits of advanced devices for monitoring health status
- Limitations and downsides addressed in incorporating biomedical and healthcare informatics in smart hospitals
- Need for a systematic framework for the enrichment of e-healthcare services
- Importance of Information and communication technologies for the development of healthcare systems

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Suggested Timeline for SI:

- Manuscript submissions due – 31.12.2023
- First round of reviews completed – 15.04.2024
- Second round of reviews completed – 21.06.2024
- Final manuscripts due – 26.08.2024

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