Hands-on Session

Abstract of the Session :-

Reproductive health and maternal care are fundamental aspects of healthcare, with profound implications for the well-being of individuals and societies. In recent years, the advent of Artificial Intelligence (AI) has opened new horizons for revolutionizing these critical domains. This session will explore the potential of AI in optimizing fertility and maternal care through the application of Exploratory Data Analysis (EDA), data visualization, and Machine Learning (ML) algorithms for prediction modeling. The first part of the session delves into Exploratory Data Analysis and data visualization techniques applied to comprehensive datasets related to reproductive health and maternal care. EDA unveils hidden patterns and trends, shedding light on factors affecting fertility rates, and maternal health outcomes, and finding correlations. Visualization tools provide intuitive insights, enhancing our understanding of complex relationships within these datasets. The second part of this session will focus on the application of Machine Learning algorithms for prediction modelling. Various ML techniques, including regression, classification, and Naïve Bayes, are employed to create robust and accurate predictive models. By synergizing EDA, data visualization, and ML, this research seeks to advance the field of reproductive health and maternal care. The insights gained through EDA and visualization facilitate a comprehensive understanding of the multifaceted factors influencing fertility and maternal outcomes. ML algorithms enable the development of predictive models that can assist healthcare professionals in making informed decisions and providing personalized care. Ultimately, the integration of AI into reproductive health and maternal care has the potential to significantly improve healthcare outcomes, reduce maternal mortality rates, enhance fertility treatments, and optimize family planning strategies. This research underscores the transformative role of AI in revolutionizing reproductive health and maternal care, paving the way for a healthier future for individuals and societies alike.