

## **ABSTRACT**

Sports are crucial not only for maintaining physical and mental health but also for enhancing overall quality of life. Increasing awareness of the benefits of sports has driven research focus in this area. The primary challenge in this research lies in measuring the effectiveness of exercises across various sports with diverse parameters such as heart rate, exercise duration, and intensity. This complexity necessitates accurate and comprehensive measurement, along with solutions to address limitations in accessing crucial features of physical activity monitoring applications.

Developed solutions to tackle these challenges in physical activity monitoring include high-accuracy GPS-based mobile object tracking systems and Android applications facilitating activity tracking, data recording, and social media sharing. These applications promise significant potential in promoting physical activity due to their affordability, accessibility, and real-time monitoring capabilities, thereby facilitating individually tailored interventions. Such solutions underscore technological advancements supporting effective health promotion and physical activity monitoring efforts.

Keywords: Sports, Physical Health, Physical Activity Monitoring, GPS, Health Monitoring Technology