

Revolutionizing Sports Education using AI & ML

Shreyash Andhale¹, Om Salunke², Tirse Siddhesh³, Kasar Vivek⁴,
Thorat Vaibhav⁵, Prof. Ravindra Pandit⁶

Department of Computer Engineering¹⁻⁶

SND College of Engineering & Research Centre, Yeola, Maharashtra, India

Abstract: *In the realm of sports education and performance analysis, there exists a pressing need to overcome barriers such as geographical limitations, cost constraints, and time constraints inherent in traditional teaching methodologies. In response to these challenges, this paper presents a novel sports education system leveraging artificial intelligence (AI) technologies. This allinclusive system allows for easy access to sports academies and training facilities based on geographic proximity by introducing an innovative teaching platform driven by AI and GPS integration. Moreover, it offers an extensive library of sports laws, sophisticated strategies, and professional advice, encouraging ongoing skill development. Setting goals and closely observing performance are made easier by the system's integration of AI-driven forecasts, such as victory probabilities. The central aim of this initiative is to redefine the landscape of sports education by offering a convenient, cost-effective, and highly efficient solution accessible to individuals at all proficiency levels. In addition to its educational advantages, the system is poised to make significant contributions to sports analytics, supplying extensive data and insights for both researchers and practitioners. This proposal advocates a progressive approach that moves beyond traditional methods, heralding a new era in sports education and performance analytics*

Keywords: Goal-setting, performance tracking, affordable education, accessibility in sports, artificial intelligence, sports education, coaching platforms, GPS integration, sports analytics, machine learning, training centers, data and insights, sports rules repository, expert insights, goal-setting, and performance analysis Instantaneous Communication, Tailored Mentor Assistance, WebRTC, MongoDB, socket.io, Node.js, React.js, and API Integration.