

Artificial Intelligence–Driven Intelligent Learning Systems for Language Proficiency, Student Success, and Well-Being in Higher Education

Chapter	Title	Page No.
1	Introduction to AI, ML, and DL in Higher Education Ecosystems	15
2	Role of IoT and Smart Learning Environments in Modern Education	39
3	Foundations of English as a Foreign Language (EFL) Learning Analytics	63
4	AI-Based English Reading Proficiency Assessment Models	86
5	Machine Learning Approaches for English Writing Skill Evaluation	109
6	Deep Learning Techniques for Vocabulary Acquisition and Retention	131
7	Fuzzy Logic Models for Language Proficiency and Skill Uncertainty Handling	154
8	Graph Theory Applications in Adaptive Learning Path Design	176
9	Shortest Path Algorithms for Personalized Learning Optimization	200
10	Cost-Minimization Models in Intelligent Educational Systems	225
11	AI-Driven Aptitude Skill Analysis and Career Readiness Prediction	248
12	Student Performance Prediction Using Machine Learning and Deep Learning	275
13	Early Warning Systems for Student Dropout Risk Prediction	298
14	Learning Outcome Optimization Through Hybrid AI Models	322
15	Stress Detection and Management for Students Using AI and IoT Sensors	351

16	Faculty Well-Being Monitoring Using Intelligent Analytics Frameworks	380
17	Applied Physics Education Enhanced by AI-Based Virtual Laboratories	407
18	Machine Learning Applications in Chemistry Education and Experiment Simulation	434
19	Ethical, Privacy, and Security Issues in AI-Enabled Higher Education	461
20	Future Trends in Intelligent, Sustainable, and Inclusive Higher Education Systems	486