



U-Think: AI-Based Personalized Career Guidance

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Abstract—

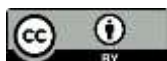
How to Cite this Article:

V, A. N., S, D. K., Y, M. H. & KUMAR, N. (2026). U-Think: AI-Based Personalized Career Guidance. International Journal of Creative and Open Research in Engineering and Management, <i>02</i>(10), 1-9.
<https://doi.org/10.55041/ijcope.v2i10.178>

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<https://doi.org/10.55041/ijcope.v2i10.178>

Career selection is an important decision for students, particularly after completing Class 10 and Class 12. However, students may face difficulties in identifying suitable educational pathways, understanding entrance examination requirements, comparing colleges, and exploring career opportunities based on their academic qualifications and interests. U-THINK is an AI-based personalized career guidance platform developed to help students make informed educational and career decisions.

The system enables students to create profiles, analyze academic marks, explore educational pathways, and discover suitable courses and colleges. It provides information about PUC, diploma and polytechnic programs, ITI, paramedical courses, and vocational education. The platform also supports entrance examination exploration, degree comparison, salary information, job opportunities, and personalized career roadmap recommendations. By organizing educational information within a unified platform, U-THINK helps students explore available opportunities according to their qualifications, interests, and career goals.

The main objective of U-THINK is to simplify educational decision-making through centralized information management and AI-assisted recommendations. The platform provides a foundation for personalized career planning and can be further enhanced through aptitude assessments, skill evaluation, verified institutional

data, multilingual support, progress tracking, and real-time admission and examination notifications. These capabilities aim to improve access to educational information and support students in planning their future academic and professional pathways.

Keywords— U-THINK; Artificial Intelligence; Personalized Career Guidance; Student Profile Analysis; Educational Pathways; College Discovery; Entrance Examinations; Career Roadmap; AI-Assisted Recommendations; Degree Comparison; Job Opportunities; Education Planning.



I. INTRODUCTION

Choosing an appropriate educational pathway and career is an important decision for students, particularly after completing secondary and higher secondary education. Students must consider their academic performance, interests, financial circumstances, available courses, entrance examinations, and future employment opportunities. However, educational information is often distributed across multiple websites and sources, making it difficult for students to compare alternatives and identify suitable pathways.

Recent developments in artificial intelligence (AI) and recommendation systems provide opportunities to improve personalized educational guidance. AI-based systems can analyze student information and generate recommendations based on individual qualifications, preferences, and career goals. Educational data management and intelligent decision-support techniques can also help students explore courses, colleges, entrance examinations, and employment opportunities more efficiently.

Despite these developments, students may still encounter fragmented educational information and limited access to personalized guidance. General-purpose career platforms may not provide sufficiently integrated information about educational pathways, eligibility requirements, college options, and career opportunities in a single system. This creates a need for a unified platform that combines student profile analysis, educational information, and personalized recommendations.

To address this need, **U-THINK: AI-Based Personalized Career Guidance** is designed to support students in exploring educational and career opportunities through a centralized web platform. It enables students to manage their profiles, analyze academic marks, explore courses and colleges, access entrance examination information, compare degrees, investigate job opportunities, and receive AI-assisted career roadmap recommendations. The primary objective is to simplify educational decision-making and

help students identify pathways aligned with their qualifications, interests, and career goals.

II. LITERATURE REVIEW

Existing research in educational technology has explored recommendation systems, machine learning, and artificial intelligence to support personalized learning and academic decision-making. These techniques analyze student preferences, academic performance, and individual interests to recommend suitable courses, learning resources, and career pathways. However, the effectiveness of such systems depends on data accuracy, recommendation quality, and the ability to provide relevant and understandable suggestions.

Career guidance platforms provide information about courses, colleges, entrance examinations, qualifications, and employment opportunities. However, this information is often distributed across multiple sources, making it difficult for students to compare educational options and plan their careers. U-THINK addresses this challenge by integrating student profile management, academic marks analysis, educational pathway exploration, college discovery, degree comparison, job opportunities, and AI-assisted career roadmap generation into a unified platform. The system aims to connect students' academic qualifications and interests with suitable educational and career opportunities.

III. METHODOLOGY

U-THINK is developed as an AI-based personalized career guidance platform that helps students explore suitable educational pathways and career opportunities. The methodology begins with collecting student information, including academic qualifications, marks, educational interests, and career preferences. The system analyzes these details to help students explore relevant courses, colleges, entrance examinations, and career options. Educational information is organized to support searching, comparison, and informed decision-making.



The platform integrates student profile management, educational pathway exploration, college discovery, degree comparison, job information, and AI-assisted career recommendations. Based on the available student profile and educational information, U-THINK provides personalized guidance and career roadmap suggestions. The system also supports features such as salary exploration, exam reminders, and saved pathways to help students plan their academic progress. The overall methodology aims to centralize educational information and make career planning more accessible. The accuracy and usefulness of recommendations depend on the quality of the available educational data and should be evaluated through testing and student feedback.

IV. RESULTS AND DISCUSSION

U-THINK integrates student profile creation, academic marks analysis, and AI-assisted career recommendations to support personalized educational roadmaps. The application also provides access to college, entrance examination, degree, salary, and job-related information through a unified web platform. The screenshots below illustrate key interfaces described in the project document. Recommendation accuracy and usability should be assessed through systematic application testing and student feedback; no quantitative performance results are claimed.



Fig. 1. Exams and degrees analytics board

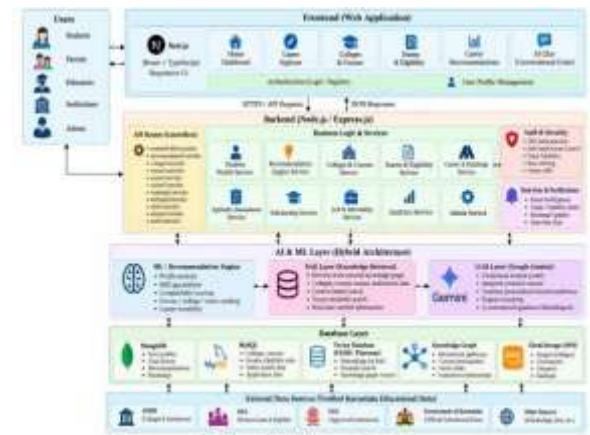


Fig. 2. Proposed U-THINK system architecture

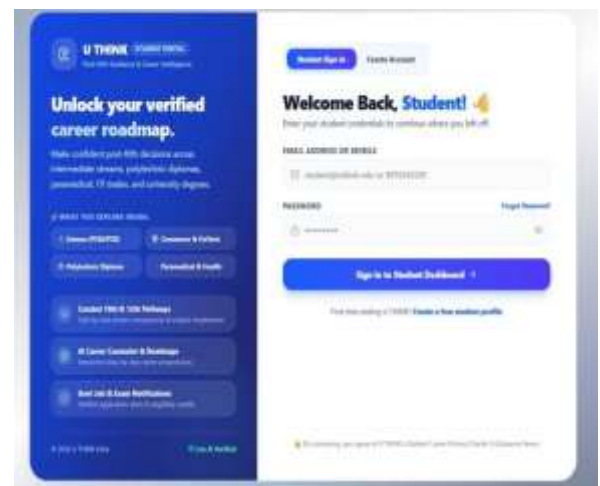


Fig. 3. Student login and account creation interface

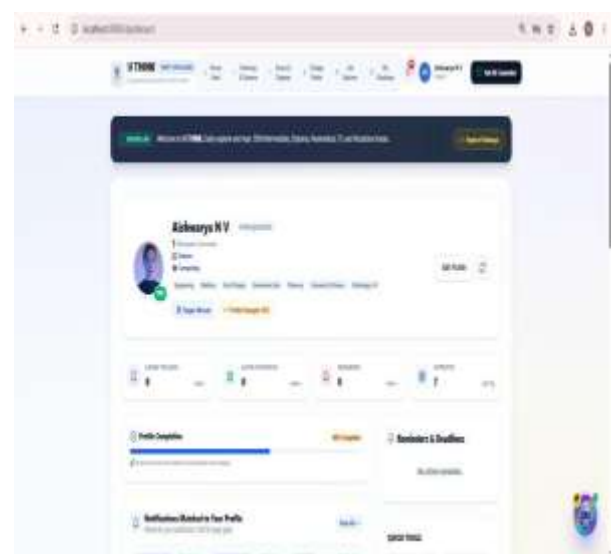


Fig. 4. Student dashboard and profile overview



Fig. 5. Personalized AI career roadmap interface

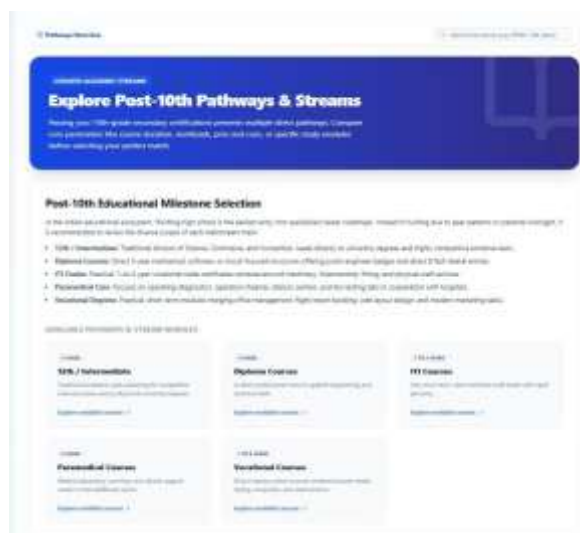


Fig. 6. Post-10th educational pathways and streams

Table I: Main Functional Modules of U-THINK

Module	Function	Purpose
Student Profile	Qualifications and marks	Personalized guidance
Pathways	PUC, Diploma, ITI, Paramedical	Explore study options
Career Tools	Roadmap, exams, colleges, jobs	Support planning

V. CONCLUSION

U-THINK provides a unified platform for exploring educational pathways and career opportunities through student profile management, academic marks analysis, and AI-assisted recommendations. It brings together information about courses, colleges, entrance examinations, degrees, salaries, and jobs to support informed educational planning. Future evaluation should assess recommendation accuracy, usability, and the effectiveness of the platform through systematic testing and student feedback.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to the management and faculty members of Sampooran Institute of Technology for their support and encouragement throughout the development of the U-THINK project. The authors are also thankful to their project guide for valuable guidance, suggestions, and support during the design and development of the proposed system. Finally, the authors thank everyone who contributed directly or indirectly to the successful completion of this project.

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