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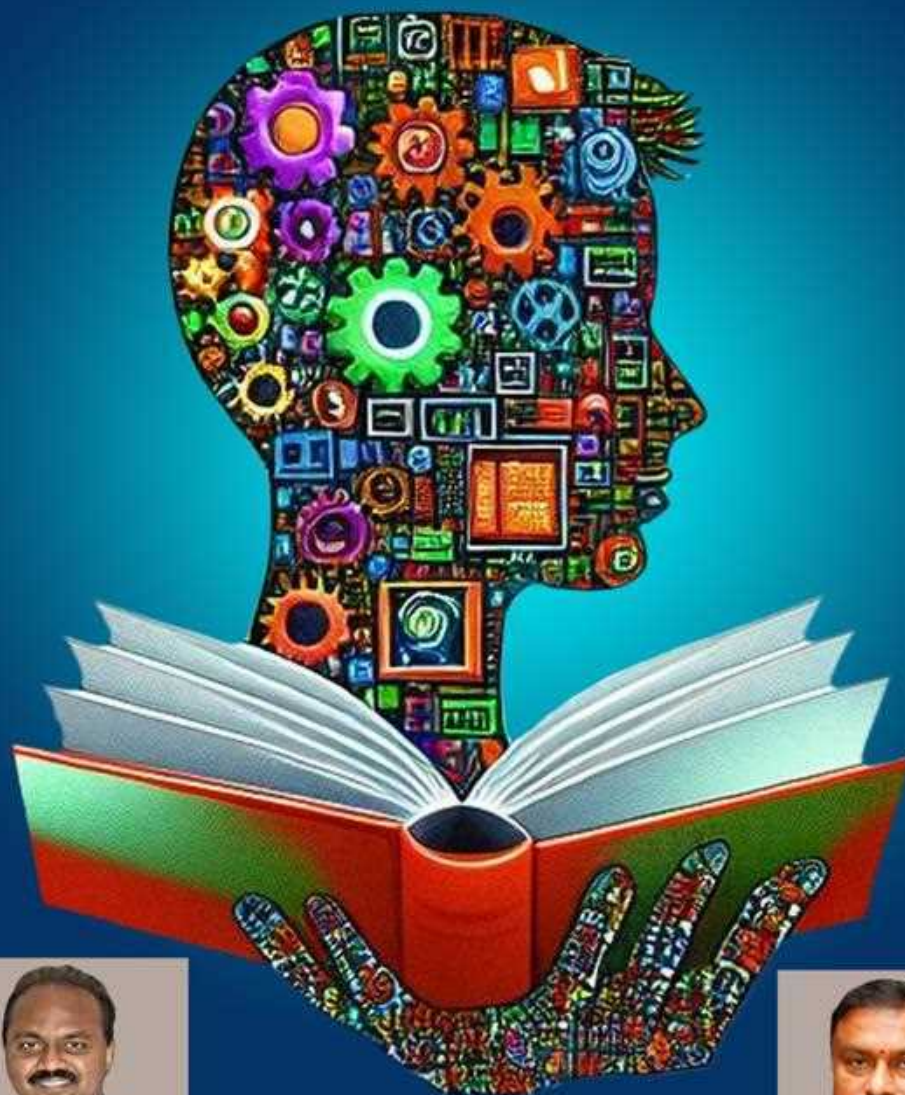


**Commissionerate of Collegiate Education**

Government of Andhra Pradesh



# AI TOOLS IN TEACHING, LEARNING AND RESEARCH



**Sri J. Syamala Rao IAS**  
Principal Secretary to Govt. of A.P.,  
Dept. of Higher Education.



**Dr. Pola Bhaskar IAS**  
Commissioner of Collegiate Education,  
Govt. of Andhra Pradesh

## Commissionerate of Collegiate Education Government of Andhra Pradesh

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This book offers insights on the use of Artificial Intelligence (AI) in Higher Education. It provides educators with a curated selection of AI Tools to enhance Teaching, Learning, Assessment, and Research practices. These tools support the creation of dynamic e-learning materials within existing Single Major Curricular frameworks for all the subjects.

The Content of this book is drawn primarily from documentation and resources found on the official websites of the AI Tools discussed. The educators will discover the techniques to adapt and implement these tools in their regular teaching process, develop effective e-learning resources like video making, presentations, podcasts, assessment tools, etc.

This book is a Compilation of AI Tools which are available on Internet and is used only for educational purpose and not intended for commercial use.

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## Message



The Commissionerate of Collegiate Education has been implementing various useful initiatives for the development of the marginalised and the first-generation rural students of the state of Andhra Pradesh.

Apart from offering qualitative teaching, the department has been successful in harnessing technology with the traditional classroom teaching through LMS portal.

Now the department has come up with another e-innovation bringing AI-Artificial Intelligence into the classroom, keeping its pace with the fast track of technology, a dedicated IT team of the Academic Cell has brought out a book listing out various tools for use in the classroom.

Such innovations will always stand as beacon lights to inspire the future generations of teachers and students.

I wholeheartedly appreciate the efforts of the Commissioner and his team for bringing out this valuable gift, which is the need of the hour.

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**Sri. J. Syamala Rao, IAS**  
Principal Secretary to Government  
Department of Higher Education  
Andhra Pradesh



## Message



It is with great pleasure to share that the book titled "AI Tools in Teaching, Learning & Research" is a comprehensive guide, that the authors have meticulously crafted a roadmap for navigating the dynamic landscape of generative artificial intelligence with practical demonstrations.

Through insightful analysis and practical examples, this book equips readers with the necessary tools and skills to harness the power of generative AI effectively in Teaching, Learning, Content Development, Assessments and Research. Whether you are a seasoned professional or just beginning your journey in AI, this book offers valuable insights and strategies to elevate your understanding and proficiency in this field.

I commend the authors for their dedication and expertise in demystifying complex concepts and providing actionable advice. "AI Tools in Teaching, Learning & Research" is a must-read for anyone looking to stay ahead in the rapidly evolving world of artificial intelligence.

I appreciate the efforts of the Team from Commissionaire of Collegiate Education, Government of Andhra Pradesh for bringing such a worthy book.

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**Prof. K. Srinivas**

Head ICT & Project Management Unit  
National Institute of Educational Planning  
and Administration  
New Delhi

## Foreword



It is heartening to note that the Academic Cell of the Commissionerate of Collegiate Education is bringing out a book to offer a variety of AI tools for use in Teaching, Learning, Evaluation and Research processes.

In tune with the vision of our Government of Andhra Pradesh, our department is striving to implement the AI tools in the Teaching – Learning process of Collegiate Education.

AI (Artificial Intelligence) tools are increasingly important across various fields and industries to automate tasks, analyse vast amounts of data, and make informed decisions.

The importance of AI tools has gained a new significance due to their innovative ability and creative potential. The Zen-Z wants creative presentation skills for faster learning and application. AI has gathered its space by offering ‘personalised learning tools, intelligent tutoring systems and creative content production’ in an unimaginable time limit.

This book offers a variety of tools with impressive screen shots to guide the teachers for content creation and presentation.

I appreciate the team for compiling a useful resource on the AI tools, which is an essential requirement for the present-day teaching.

With best wishes,

**Dr. Pola Bhaskar, IAS**  
Commissioner of Collegiate Education  
Government of Andhra Pradesh

## ACKNOWLEDGEMENTS

The compilation of this book, **"Artificial Intelligence Tools in Teaching, Learning and Research"** would not have been possible without the invaluable support and contributions from a multitude of individuals and organizations. We extend our sincere thanks to the <sup>26</sup> **Government of Andhra Pradesh and Sri J. Syamala Rao, IAS, Principal Secretary to Government, Department of Higher Education, Andhra Pradesh**, for their vision and unwavering commitment to integrate cutting-edge technologies like Artificial Intelligence into the State's Educational landscape. Their dedication to empowering educators and students with these tools paves the way for a brighter future.

**Our heartfelt thanks to Dr. Pola Bhaskar, IAS, Commissioner of Collegiate Education, Andhra Pradesh**, for his constant support and able guidance throughout the development of this book. His vision of Digital Inclusion in Higher Education enhances the quality of Education in Andhra Pradesh Government Degree Colleges which also bagged Skoch Gold award.

<sup>33</sup> We extend our sincere thanks to **Prof. K. Srinivas, Head ICT & PMU, NIEPA, New Delhi** for his continuous support & guidance and to the dedicated **Officers of the Commissionerate of**



**Collegiate Education, Andhra Pradesh**, whose tireless efforts, and technical expertise were crucial in compiling and organizing this information.

Finally, we acknowledge the contributions of all the **sources of the AI Tools** referenced in this book. Their innovative work in developing and implementing AI solutions for education has laid the foundation for this resource.

We believe this book serves as a valuable resource for educators, researchers, and policymakers in Andhra Pradesh, promoting the effective <sup>4</sup> use of AI tools to transform the Teaching, Learning, Evaluation, and Research landscape in the State's Educational Institutions.

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