Hands-on Training Programme Report

"AI for Educators and Researchers: Tools, Techniques, and Ethics"
Organized by: Anand Pharmacy College
In Association with: Shri B. V. Patel Education Trust, Ahmedabad
Dates: 12th – 13th August 2025
Venue: Anand Pharmacy College, Vallabh Vidyanagar

Workshop Objectives

1. Familiarize educators and researchers with AI and ML tools relevant to education and pharmaceutical research.
2. Enable participants to design interactive and visually appealing teaching and research content.
3. Demonstrate AI platforms for literature exploration and research gap identification.
4. Enhance skills for thesis and research paper preparation using AI tools.

Day 1 – 12th August 2025

Registration & Breakfast (9:00 – 10:00 AM):
Participants were welcomed and registered for the workshop. This session provided an opportunity for networking and familiarization with the venue.

Inauguration & Welcome (10:00 – 10:30 AM):
Dr. Tejal Gandhi welcomed the guests. Prof. (Dr.) Amit Ganatra, Provost, Parul University, Vadodara, delivered the inaugural address, highlighting the importance of AI in education and research and outlining workshop objectives.

Dr. Manish Nivsarkar, Director of B.V. Patel Education Trust (BVPET), Ahmedabad, explained the Trust's mission to advance quality education, research, and community development in Gujarat. BVPET focuses on academic excellence, innovative teaching and research practices, and supporting healthcare and pharmacy institutions. Dr. Nivsarkar emphasized the Trust's vision to integrate emerging technologies such as AI in education and research to promote learning, innovation, and professional excellence.

Session 1: Insights & Visualization of AI/ML Tools for Pharmaceutical Research (10:30 – 11:30 AM):
Participants were trained using **Orange software**, a user-friendly machine learning platform for data visualization and analysis. The session demonstrated how AI/ML can

be applied in pharmaceutical research workflows to analyze datasets, detect patterns, and visualize research insights effectively.

Session 2: Creative Teaching with AI – Designing Visuals, Quizzes, and Lesson Plans (11:30 AM – 1:00 PM):
Led by Dr. Swayamprakash Patel, CHARUSAT, this session demonstrated AI tools for enhancing teaching strategies. Participants learned to create interactive visuals, quizzes, and lesson plans. Additionally, the session explained how **FTIR spectral resolution can be improved** using data preprocessing and AI-assisted analysis for more overlay spectra analysis.

Lunch Break (1:00 – 2:00 PM)

Session 3: AI-Assisted Education Tools – Exploring Socratic and Elicit (2:00 – 3:30 PM):
Ms. Tanvi Desai, HOD MCA, Anand IMS, conducted a hands-on session with AI platforms designed for education. Participants explored Socratic and Elicit to enhance teaching and research support, gaining practical skills for integrating AI in classroom and research workflows.

Tea Break (3:30 – 3:45 PM)

Session 4: AI-Assisted Education Tools – Semantic Scholar & QuillBot (3:45 – 4:45 PM):
Mr. Pratik Kumar Patel from Anand IMS guided participants through AI tools for research literature search, summarization, and content refinement. Participants learned

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Day 2 – 13th August 2025

Breakfast (9:30 – 10:00 AM):
Participants gathered for a light breakfast and prepared for the day's sessions.

Session 1: Hands-on AI – Automating Referencing, PPTs, Image Design, Storytelling, and Graphical Abstracts (10:00 – 11:30 AM):
Participants practiced using AI tools to automate academic content creation. Tools demonstrated included AI for generating references, designing PPT slides, creating graphical abstracts, and storytelling. Additionally, participants explored software for **image-to-text and text-to-image creation** to visually represent research ideas without requiring advanced AI coding skills.

Session 2: Hands-on with Research Rabbit, Connected Papers, and Scite.ai – Discovering Literature Gaps & Mapping Research Directions (11:30 AM – 1:00 PM):
Prof. (Dr.) Lalji Baldaniya, Marwadi University, demonstrated how to use AI platforms to identify research gaps and map scientific literature. Participants were also introduced to **Napkin AI**, an AI tool for summarizing papers, generating insights, and visualizing research networks, along with Scite.ai for evaluating citation contexts and verifying research reliability.

Lunch Break (1:00 – 2:00 PM)

Session 3: AI Tools for Thesis & Research Paper Writing (2:00 – 4:00 PM):
Dr. Sunny Shah, Associate Professor, Government Pharmacy College, Gandhinagar, guided participants in using AI-assisted tools for drafting, editing, and refining thesis and research papers. Participants learned to improve manuscript quality and efficiency using AI-based suggestions and automated formatting tools.

Valedictory & Certificate Distribution (4:00 – 4:30 PM):
The workshop concluded with summary remarks, feedback collection, and distribution of participation certificates.

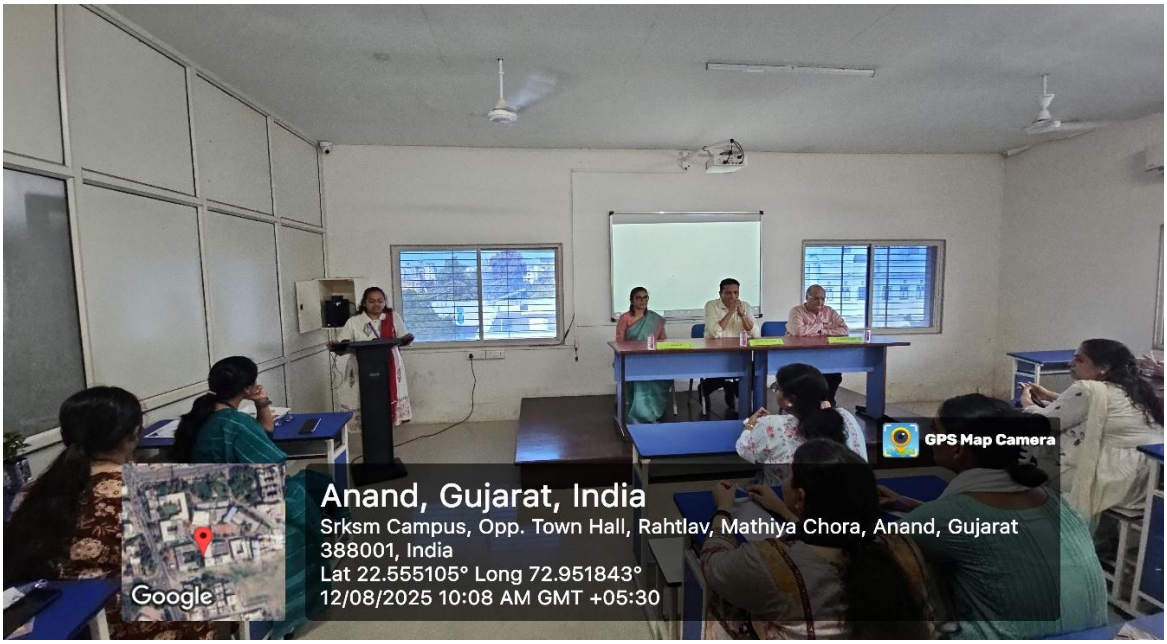
Venue Notes: The valedictory function was held at UG5 Classroom, Fourth Floor, APC. Scientific sessions took place in the Computer Lab, Third Floor, Main Building, APC.

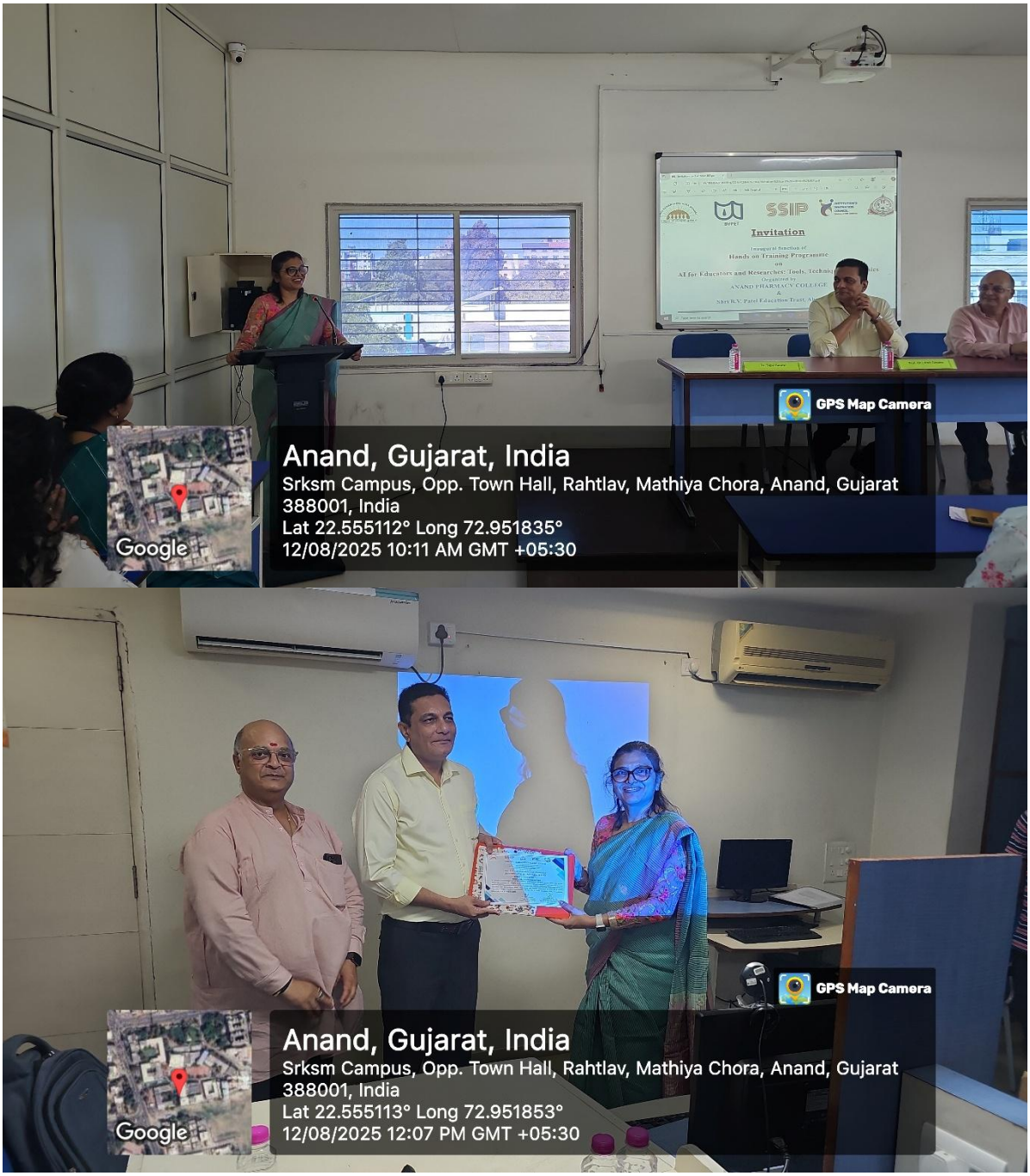
Expected Outcomes

- Participants gained hands-on experience with AI tools for teaching and research.
- Ability to automate creation of references, presentations, graphical abstracts, and interactive content.
- Skills to map research directions, identify literature gaps, and analyze research quality.
- Improved efficiency and quality in thesis and research paper writing.
- Awareness of ethical and effective integration of AI in academic workflows.

Photos Attached

Day 1:

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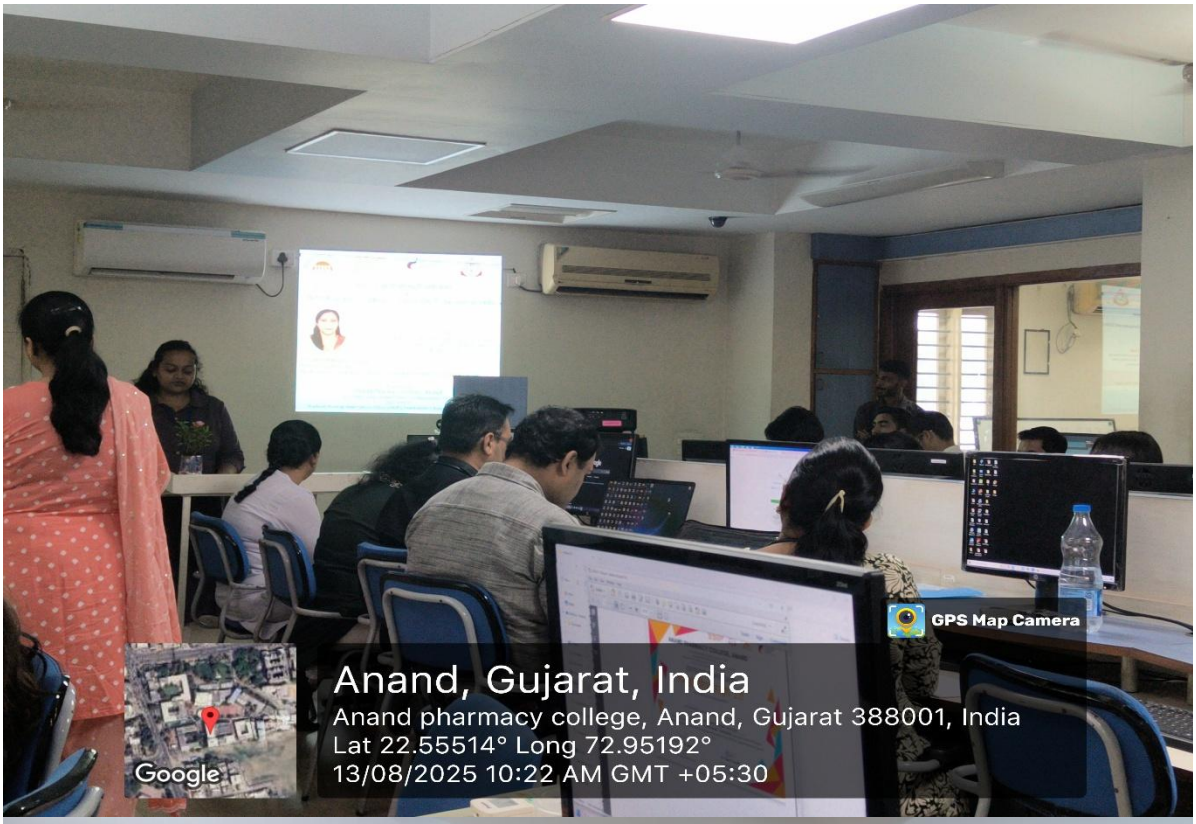
Day 2: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