Shri Shivaji Education Society Amaravti's

Science College, Nagpur

Microbiology & Biotechnology Department

&

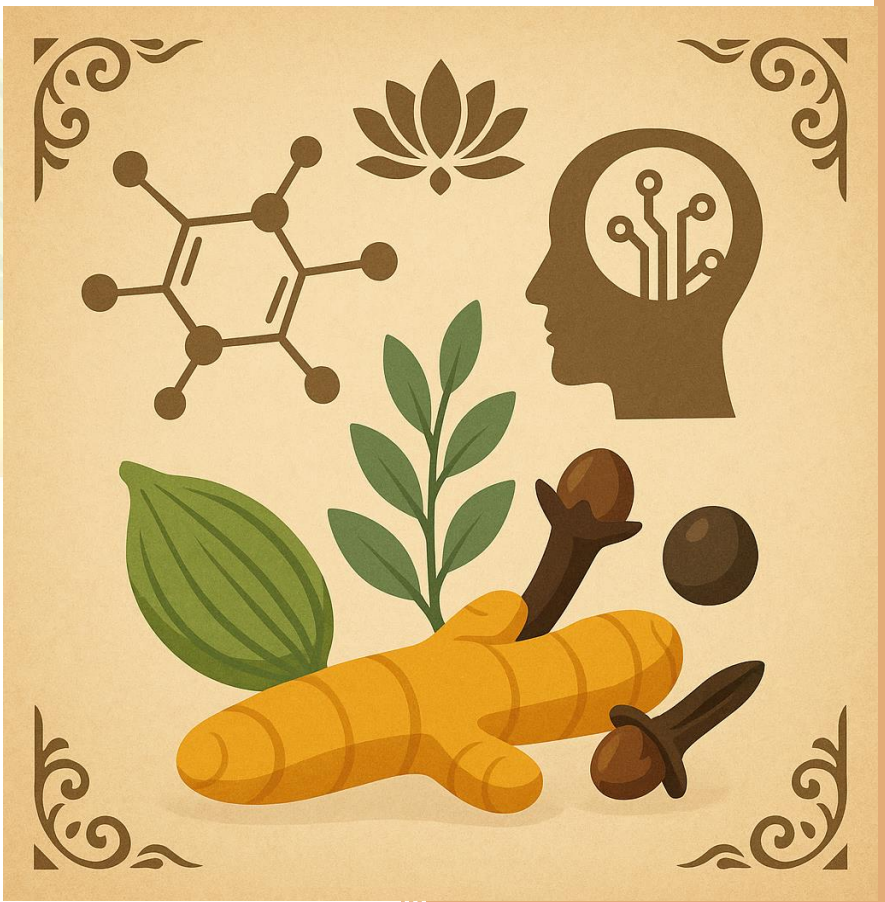
In Collaboration with

University Level One Day SDP

AI-Enhanced Research Methodology: A Student Development Program on Molecular Docking, Antimicrobial Activity, and ADME Analysis under Indian Knowledge System (IKS)

"यन्त्रज्ञानेन संयुक्तं, विज्ञानं भारतोदितम्।

औषधेषु दृश्यते तत्त्वं, ऋषेः ज्ञानं न नश्यति॥"



For More

Report: Action Taken and Feedback

One-Day University-Level Student Development Workshop

Title: ***AI-Enhanced Research Methodology: A Student Development Program on Molecular Docking, Antimicrobial Activity, and ADME Analysis under Indian Knowledge System (IKS)***
Date: 15th October 2025
Organized by: Shivaji Science College
Participants: 60 students from various institutes affiliated with RTM Nagpur University

Action Taken

Shivaji Science College successfully organized a one-day University-level Student Development Workshop titled **"AI-Enhanced Research Methodology"** under the theme of **Indian Knowledge System (IKS)**. The workshop aimed to bridge traditional Indian scientific wisdom with modern computational tools in drug discovery and biomedical research.

The event was inaugurated with the guiding verse:
"यन्त्रज्ञानेन संयुक्तं विज्ञानं भारतोदितम्। औषधेषु प्रकटं तत्त्वं ऋषीणां ज्ञानमक्षयम्॥"
("Blended with the power of artificial intelligence, the science born in India shines anew. In the essence of herbs lies the eternal wisdom of the sages — knowledge that never fades.")

Two distinguished experts led the sessions:

- 🧑🏫 **Dr. Pranita Gulhane** – Specialist in *Antimicrobial/Antibacterial Activity*
- 🧑🏫 **Dr. Sarang S. Dhote** – Expert in *Computational Drug Design and ADME Analysis*

Key Workshop Themes:

- **Indian Knowledge Systems (IKS):** Integration of Ayurveda, Rasashastra, and ethnobotany with modern biomedical research.
- **Antimicrobial Activity:** Laboratory-based evaluation of bioactive compounds against pathogens.
- **ADME Analysis (Boiled Egg Model):** In silico prediction of pharmacokinetics for drug-likeness.
- **Molecular Docking & AI:** Use of AI-enhanced computational tools to simulate drug-target interactions and streamline research workflows.

The workshop included hands-on demonstrations, expert lectures, and interactive Q&A sessions. A total of **60** participants from various RTMNU-affiliated institutions actively engaged in the program.

Feedback from Participants

1. **"One key takeaway from this workshop is understanding how precise and secure docking techniques can significantly improve operational efficiency and safety. I**

now feel more confident in applying these methods in real scenarios, and I appreciate how small adjustments can make a big difference."

2. **"This workshop showed me how AI tools can simplify and enhance research tasks like molecular docking and ADME analysis."**
3. **"For me, the overall experience was quite fine and fun this time."**

Conclusion

The workshop successfully achieved its objective of introducing students to the synergy between traditional Indian scientific knowledge and modern AI-driven research methodologies. The enthusiastic participation and positive feedback reflect the growing interest in interdisciplinary approaches to drug discovery and biomedical innovation.

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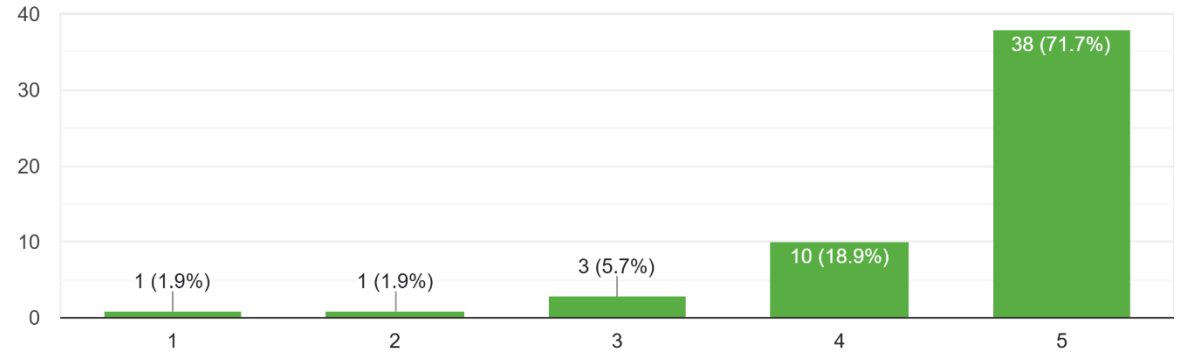
Feedback

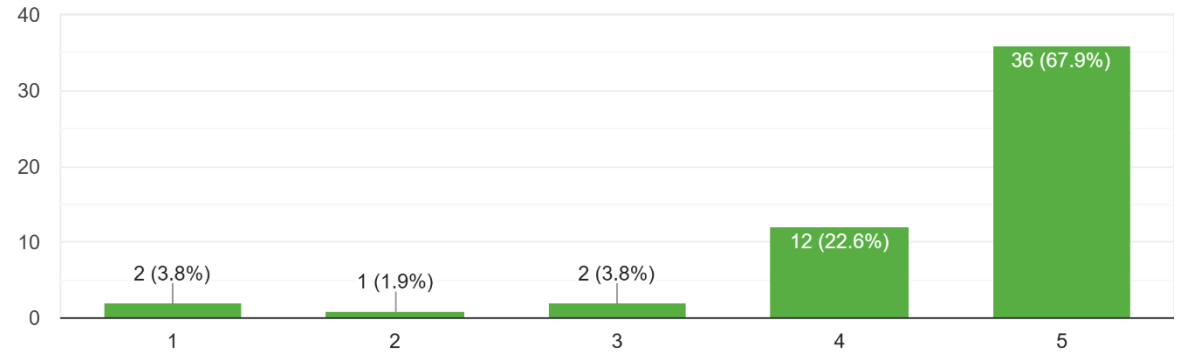
How would you rate the overall quality and relevance of the workshop content?

53 responses



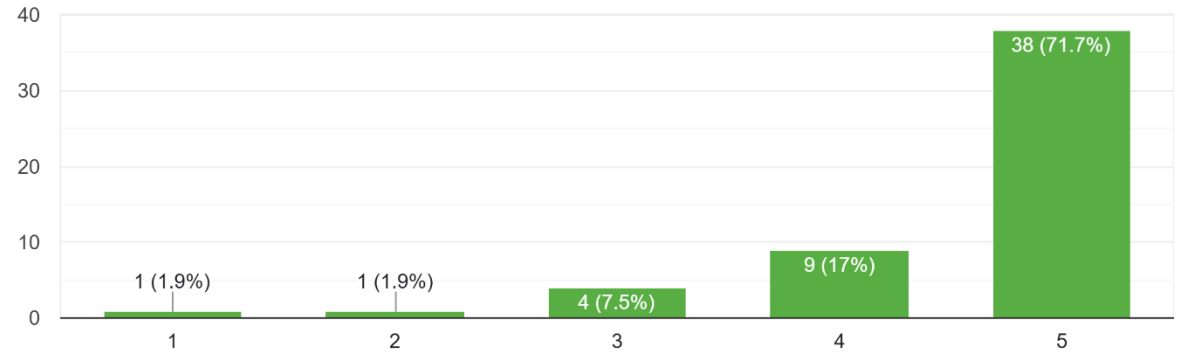
How clearly were the concepts (caffeine chemistry, docking, ADME, etc.) explained?

53 responses



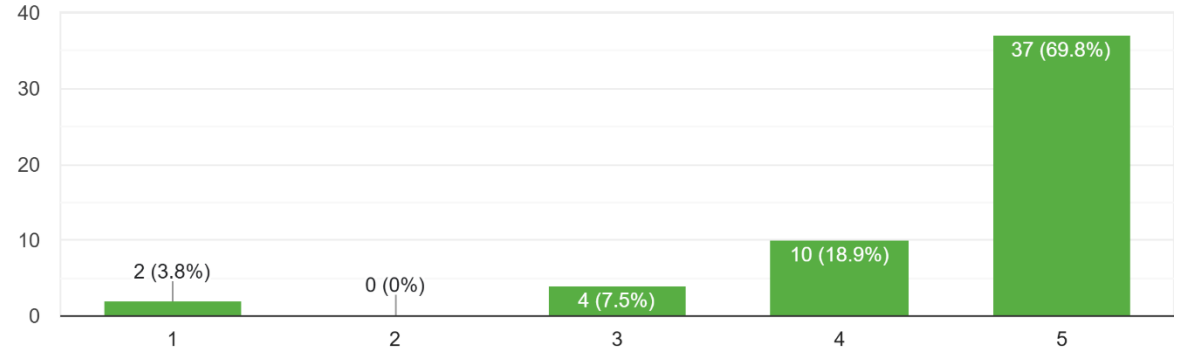
How useful were the hands-on sessions (SwissDock, CB-Dock2, Mcule)?

53 responses



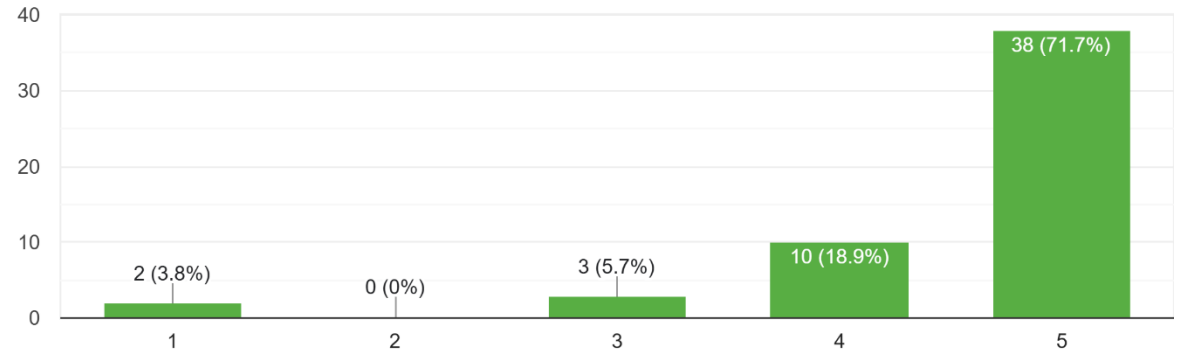
How interactive and engaging did you find the sessions?

53 responses



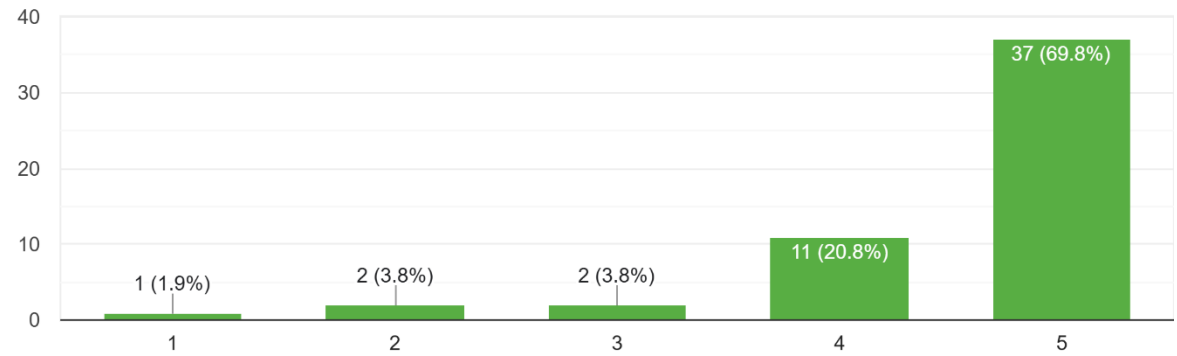
How would you rate the facilitators'/trainers' knowledge and delivery?

53 responses



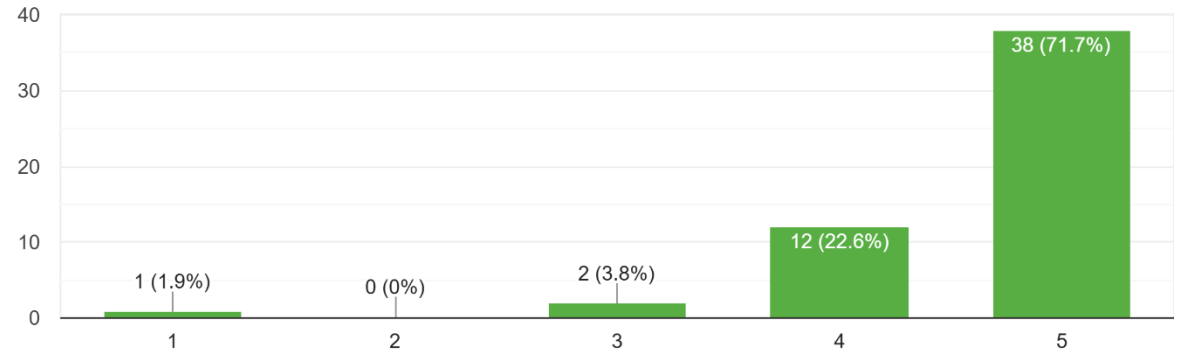
How effective were the slides, theory notes, and infographics provided?

53 responses



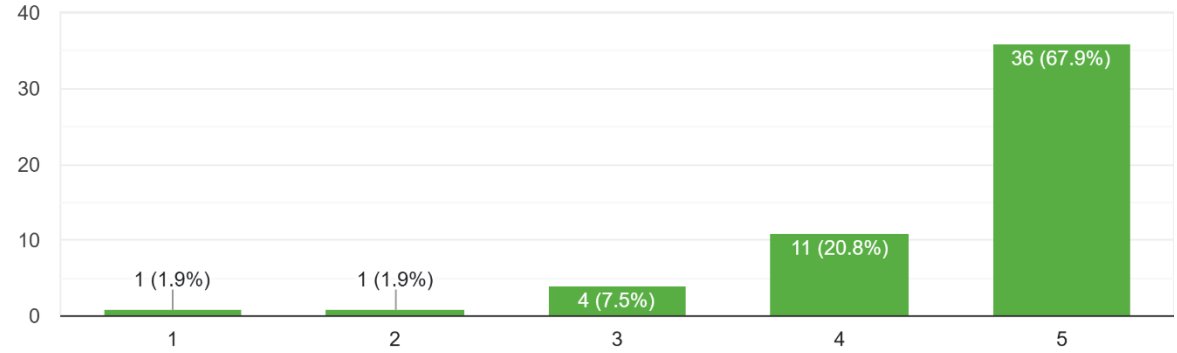
How useful was this workshop for your academic/research growth?

53 responses



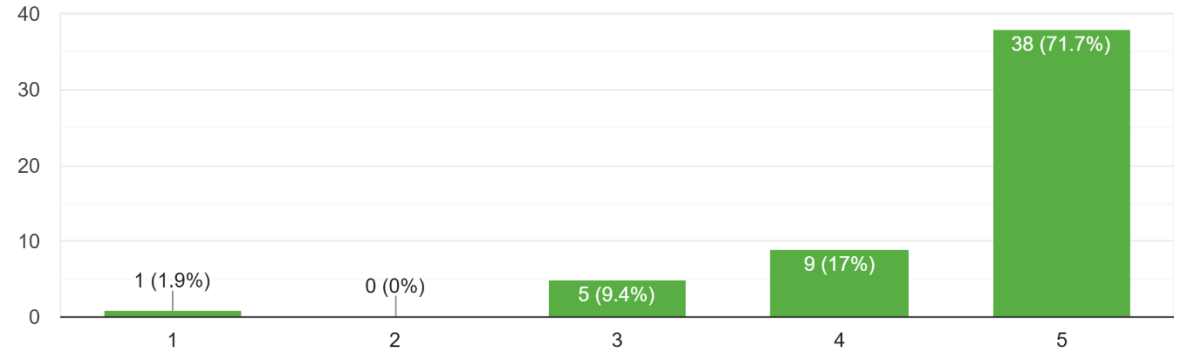
How satisfied are you with the workshop as a whole?

53 responses



How would you rate the overall structure, timing, and management of the workshop?

53 responses



Shri Shivaji Education Society Amaravti's

Science College, Nagpur

Microbiology and Biotechnology Department

&

In Collaboration with

Shivaji Science Innovation and Incubation Centre

Certificate No. - 13

CERTIFICATE

This is proudly presented to

Priyanshu Prashant Nitnaware of Dr. Ambedkar College, Deekshabhoomi, Nagpur. for actively participating in the workshop: **"AI-Enhanced Research Methodology: A Student Development Program on Molecular Docking, Antimicrobial Activity, and ADME Analysis under Indian Knowledge System (IKS)"** organized by **Microbiology and Biotechnology Department of SSESA's Science College, Congress Nagar, Nagpur in collaboration with Shivaji Science Innovation and Incubation centre held on 15/10/2025..**

For More Details

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SEAL

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