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**TULSIRAMJI GAIKWAD-PATIL**  
College of Engineering & Technology

—AN AUTONOMOUS INSTITUTE—



**GAIKWAD-PATIL**  
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# REPORT OF ONE WEEK NATIONAL WORKSHOP ON

**AI Tools for Effective Implementation of OBE**

**07<sup>th</sup> April 2025 to 11<sup>th</sup> April 2025**



# TULSIRAMJI GAIKWAD-PATIL COLLEGE OF ENGINEERING & TECHNOLOGY

Wardha Road, Nagpur - 441108

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## Report of One Week National Workshop on AI Tools for Effective Implementation of OBE

One Week National Workshop on “AI Tools for Effective Implementation of Outcome Based Education – AITIOBE- 2k25” is conducted in Tulsiramji Gaikwad Patil College of Engineering and Technology from 7<sup>th</sup> April to 11<sup>th</sup> April 2025. The Workshop is sponsored by National Institute of Educational Planning and Administration (NIEPA), New Delhi.

### 1. Executive Summary:

A one-week national workshop on "AI Tools for Effective Implementation of Outcome-Based Education (OBE)" was successfully conducted from 7<sup>th</sup> April 2025 to 11<sup>th</sup> April 2025 at Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur. The workshop is sponsored by National Institute of Educational Planning and Administration (NIEPA), New Delhi. The primary objective of the workshop is equipping educators, administrators, and academic professionals with the knowledge and practical skills necessary to integrate Artificial Intelligence (AI) tools into the teaching-learning process and academic evaluation systems aligned with Outcome-Based Education principles.

The workshop brought together over 44 participants from various academic institutions, including faculty members, curriculum designers, academic auditors, and education technology experts. Eminent speakers and resource persons from premier institutions such as IIT, IIIT, NIT's and the industry delivered interactive sessions, demonstrations, and hands-on training.

### Key Objectives:

- To enhance understanding of Outcome-Based Education and its key performance indicators.
- To introduce AI-powered tools and platforms that can assist in curriculum planning, student performance tracking, and assessment mapping.
- To demonstrate the use of AI in automating feedback systems, personalized learning, and data-driven decision-making in education.
- To promote digital pedagogy and innovation for continuous improvement in education quality.

### Highlights of the Workshop:

- Inaugural session featuring keynote addresses by distinguished AI and education policy experts.
- Thematic sessions covering AI in curriculum design, Bloom's Taxonomy alignment, and program/course outcome mapping.

- Hands-on training with tools such as ChatGPT, AI-based rubric generators, analytics dashboards, and automated assessment systems.
- Case studies and best practices from institutions already implementing AI-assisted OBE systems.
- Panel discussions on challenges and future trends in AI and OBE integration.
- Participant project presentations and collaborative exercises.

### **Outcomes:**

- Increased awareness and readiness among educators to adopt AI tools in educational planning and assessment.
- Practical exposure to AI tools that streamline the implementation of OBE at institutional and departmental levels.
- Strengthened network and collaboration among institutions for knowledge sharing and continuous improvement in OBE practices.
- Action plans drafted by participants to implement AI-supported OBE strategies in their respective institutions.

The workshop concluded with a valedictory session. Feedback collected from participants indicated a high level of satisfaction, with particular appreciation for the interactive format, practical relevance, and expert insights.

## **2. Objectives of the Workshop:**

- i. To provide a platform to discuss the applications of AI in education, with a focus on OBE.
- ii. To analyze industry needs and align curriculum accordingly through Integration of AI tools for mapping learning outcomes to course content using open source software's recommended by UGC, Swayam, NCTBE etc.
- iii. To enhance the teaching learning with AI-powered tools for content recommendation and student engagement.
- iv. To Automated assessment tools for evaluating learning outcomes and provide timely and personalized feedback to students through AI-driven feedback systems.

## **3. Inaugural Session:**

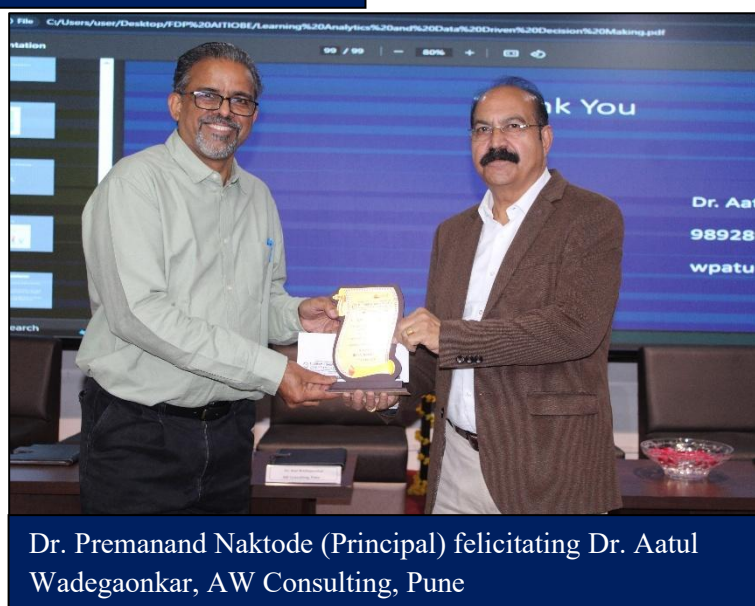
The inauguration of the Session was conducted on 7<sup>th</sup> April 2025, Key note Speaker of the session was Dr. Aatul Wadekar, A. W Consulting, Pune. The session was graced by Principal of the institute (Dr. Premanand Naktode), Dean – Outcome Based Education ( Dr. Radharaman Shaha), Dean Academics (Dr. Pratik Ghutke), Dean – IQAC ( Prof. Ritesh Banpurkar) and Controller of Examination (Dr. Prashant Thakre).



## Glimpses of the Inauguration Session:



Dr. Snehal Abhyankar (Dean Students Council) welcoming  
Dr. Aatul Wadegaonkar, AW Consulting, Pune



Dr. Premanand Naktode (Principal) felicitating Dr. Aatul  
Wadegaonkar, AW Consulting, Pune

## 4. Plenary Sessions & Technical Sessions:

### Day -1: Inaugural Session and Session -1:

#### Topic: Learning Analytics and Data-Driven Decision Making:

##### Contents of the Topic:

- Leveraging AI for analyzing student data and learning patterns.
- Using analytics to inform educational decisions and enhance program effectiveness.

**Name of Expert: Dr. Aatul Wadegaonkar (MD, AW Consulting, Pune)**

In the Session, the expert presented the difference between the learning analytics and the data driven decision making. The expert also the key components of analytics i.e data collection, data analysis, insight generation and tailoring interventions, feedbacks or redesigning curricula. Discussions on the Tools and Technologies for data analytics for outcome based education were held on Learning Management Systems (LMS) with built-in analytics (e.g., Moodle, Canvas), Dashboards & BI Tools



(e.g., Power BI, Tableau), Predictive Analytics Platforms and AI/ML models for learner profiling and recommendations. A case study of medical education was presented by the expert for use of analytics in outcome-based education.

### Some Glimpses of the Session:



Inauguration of the Workshop, Session -1 Expert, Principal, HoD's and Deans & COE



Dr. Aatul Wadegaonkar interacting with the participants on the topic of the session

### Day -1: Session -2: Aligning Learning Outcomes with Curriculum:

Name of Expert: Dr. Radharaman Shaha (Dean – Outcome Based Education, TGPCET, Nagpur)

Contents of the Topic:

- Techniques for aligning curriculum content with specific learning outcomes.
- Strategies for mapping course objectives to desired educational goals.

Dr. Shaha presented the details of learning outcomes and their alignment with the curriculum. He gave a detailed process of mapping of the learning outcomes with the contents of the curriculum. A detailed exercise was conducted for the participants for formation of the course outcomes statements. Do's and Don'ts while framing the statements and their relevance in the achievement of the intended outcomes.

## Some Glimpses of the Session:



Dr. Radharaman Shaha delivering the session on aligning learning outcomes with curriculum



Dr. Radharaman Shaha explain details about the various levels of outcomes

## Day -1: Session -3: Introduction to OBE and its Principles:

Name of Expert: Dr. Sanjay Bodhke (Registrar, Ramdeobaba University, Nagpur)

Contents of the Topic:

- Understanding the fundamentals of Outcome-Based Education.
- Defining learning outcomes and their significance in educational planning.

Dr. Bodkhe explain the basic principles of the Outcome Based Education to the participants of the Workshop and emphasized them to focus on the real outcomes of the process. Various real life examples was presented by the expert which were useful to the participants to experience the real impacts of the outcomes on the learning experience.

## Some Glimpses of the Session:



Dr. Radharaman Shaha welcoming Dr. Sanjay Bodhke for the session on principles of the OBE



Dr. Sanjay Bodhke delivering session on principles of the OBE

## Day -2: Session -1: Adaptive Learning Platforms:

**Name of Expert:** Dr. Amarth Bhide (Associate Professor, National Institute of Technology, Puducherry)

### Contents of the Topic:

- Exploring AI-driven adaptive learning systems and their role in personalizing education.
- Case studies on successful implementation and impact on student outcomes.

Dr. Amarth Bhide delivered a session on the adaptive learning open source tools such as Jasper. He emphasized on the importance of mentoring sessions of the students and its correlation with the intended results of the students. A detailed discussion with the participants was held on the successful implementation of the OBE through the use of AI Tools for OBE.

## Some Glimpses of the Session:





Prof. Rohini Pocchi welcoming Dr. Amarth Bhide for the session on adaptive learning



Dr. Radharaman Shaha felicitating Dr. Amarth Bhide after the session on adaptive learning

## Day 2: Session 2: **Role of AI in OBE:**

Name of Expert: Dr. Amey Khedikar (Registrar, TGPCET, Nagpur)

Contents of the Topic:

- Overview of How AI Technologies can support the implementation of OBE
- Examples of successful applications of AI in education

Dr. Amey Khedikar delivered an expert session of integration of AI with ChatGPT and other AI driven open source tools such as Gemini, Co-Pilot etc and their applications in framing the course outcomes, aligning the outcomes with the contents etc. He also performed the hands on sessions for the participants for the implementations of the AI tools for OBE.

## Some Glimpses of the Session:



Dr. Amey Khedikar while delivering session on Role of AI in OBE



Dr. Amey Khedikar interacting with the participants of the workshop

## Day 2: Session 3: **Direct and Indirect Attainment Tools in OBE and ethical practices using AI:**

**Name of Expert:** Prof. Ritesh Banpurkar ( Dean – IQAC, TGPCET, Nagpur)

### **Contents of the Topic:**

- Process of Attainment in OBE
- AI Tools for Direct and Indirect Attainment

Prof. Ritesh discussed in detail about the complete process of Attainment in the OBE. He explained with a case study of a course about the internal assessment, external assessment and the various tools associated with the complete process. He emphasized on the mapping of the outcomes and various open source tools such as PrepAI, AI with Excel for the calculations of the attainment for a course. Participants gained a detailed insight on this topic and also done a hands on session on the calculation of attainment of course outcomes as well as program outcomes.

## Some Glimpses of the Session:



Prof. Ritesh Banpurkar while delivering session on Process of Attainment ( Direct and Indirect) and ethical practices

## Day 3: Session 1: **Personalized Learning Paths with AI:**

**Name of Expert:** Dr. Anil Mokhode (Associate Professor, VNIT, Nagpur)

### **Contents of the Topic:**

- Developing personalized learning paths using AI algorithms.
- Addressing challenges and considerations in implementing personalized learning approaches.

Dr. Mokhode delivered a expert session on the personalized learning paths in AI through the various data mining techniques. He emphasized to track the learning trajectory of the slow and bright learners and that to have a separate plans to develop the outcomes from the efforts initiated by the respective course coordinators.

## Some glimpses of the Session:



Dr. Radharaman Shaha, welcoming Dr. Anil Mokhode for the session on personalized learning paths using AI



## Day 3: Session 2: Natural Language Processing for Communication Skills:

**Name of Expert: Dr. Anup Gade ( Dean R & D, TGPCET, Nagpur)**

Contents of the Topic:

- Applications of NLP in evaluating and improving students' communication skills.
- Tools and techniques for incorporating NLP in language-focused courses.

Dr. Gade delivered an expert session on the using NLP for the effective communication skills. In his presentation, demonstration of activity based learning was conducted for the effective implementation of the OBE.

**Some Glimpses of the Session:**



Dr. Anup Gade delivering a session on use of NLP for effective communication



Demonstration of Activity Based Learning using NLP

### Day 3: Session 3: **Practical Implementation of AI Simulations:**

**Name of Expert: Dr. Shaibal Mukherjee (Professor, Indian Institute of Technology, Indore)**

#### **Contents of the Topic:**

- Integrating AI-powered simulations into practical and hands-on learning experiences.
- Showcasing virtual labs and simulations in various disciplines.

Dr. Shaibal Mukerjee demonstrated the role of AI based simulation in the implementation of outcome based education by performing a real time simulation environment. A case study of the villages in the Indore are and their soil testing parameters to broadcast the farmers for the better yield of the agriculture was presented by Dr. Mukerjee. He emphasized the participants of the workshop for delivering the case studies in the class for the effective implementation of outcome based education.

#### **Some Glimpses of the Session:**



Dr. Shaibal Mukherjee delivering the session on AI based simulations



Dr. Radharaman Shaha felicitating Dr. Shaibal Mukherjee for delivering the session on AI based simulations

#### Day 4: Session 1: **Education Technology Integration in NEP 2020:**

Name of Expert: Dr. G.K. Awari (Head of Department – Automobile Engineering, Government Polytechnic, Nagpur, AICTE Nominated Margadarshak)

Contents of the Topic: Exploring the role of technology in education and strategies for integrating educational technology effectively in classrooms.

Dr. G. K. Awari delivered a session on the education technology integration in NEP 2020 by giving focus on the credit framework and its alignment with the various components of the curriculum. This will lead to the effective implementation of the Outcome Based Education. He also discussed the AI tools for preparing the rubrics of the projects, innovative case studies and assessment pedagogy.

#### **Some Glimpses of the Session:**



Dr. G.K. Awari delivering an expert session on Education technology integration in NEP 2020.



Dr. G.K. Awari being felicitated by Dr. Premanand Naktode for delivering session in the Workshop



#### Day 4: Session 2: Case Studies and Best Practices:

Name of Expert: Dr. Prasad Joshi (Controller of Examinations, Indian Institute of Information Technology, Nagpur)

##### Contents:

- Examining real-world examples of institutions successfully implementing AI in OBE.
- Identifying best practices and lessons learned from these implementations.

Dr. Prasad Joshi presented the case study of implementation of OBE for the mapping of end semester examination question papers. He emphasized on the Cognitive Level of knowledge dimension to be mapped in all the assessments in the OBE. He interacted with the participants of the workshop and took their view points on the different assessment methodologies for the assessment of the course outcomes and the program outcomes.

##### Some Glimpses of the Session:



Dr. Prasad Joshi delivering session on case studies and best practices in OBE during the Workshop



Dr. Prasad Joshi being felicitated by Dr. Roshan Chandekar for delivering session in the Workshop

#### Day 4: Session 3: **Automated Assessment and Feedback:**

**Name of Expert:** Prof. Mrunalini Buradkar (OBE Coordinator, St.Vincent Pallotti College of Engineering and Technology, Nagpur)

#### **Contents of the Topic:**

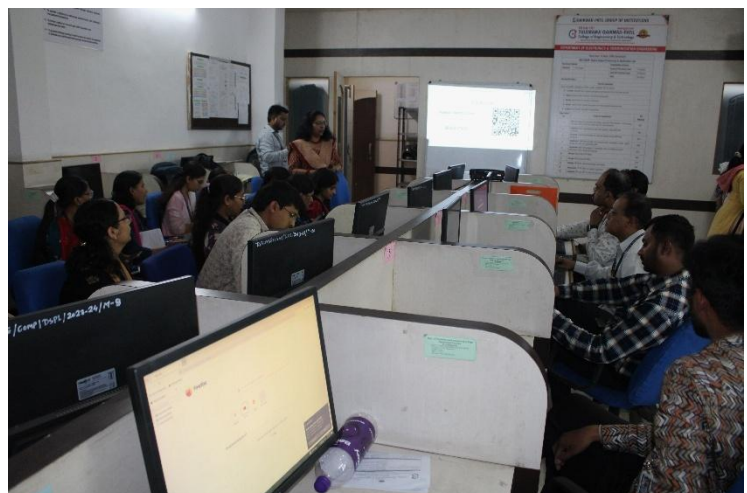
- Understanding how AI can streamline the assessment process.
- Demonstrations of automated assessment tools and their integration into OBE practices.

Prof. Mrunalini Buradkar delivered an expert session on the Automated Assessment and Feedback and demonstrated a live session on the use of google forms for AI generated reports and its analysis. A hands-on session was conducted by the expert for all the participants to generate the Assessment reports using AI.

#### **Some Glimpses of the Session:**



Prof. Mrunalini Buradkar, delivering an expert session on Automated Assessment and Feedback in the Workshop



Participants of the Workshop doing hands on session on Automated Assessment and Feedback in the Workshop

## Day 5: Session 3: **Professional Development for Educators:**

Name of Expert: Dr. Vinay Kulkarni (Professor & Dean IQAC, D.Y. Patil College of Engineering, Pune)

### **Contents of the Topic:**

- Providing training for educators on using AI tools effectively.
- Strategies for continuous professional development in the context of AI-enhanced education.

Dr. Vinay Kulkarni delivered an interactive session on the development of educators for effective implementation of OBE by making use of AI Tools such as mentimeter, orange for analysis of the OBE levels right from classroom delivery to the impact analysis of the attainment everything was covered in the session.

Dr. Kulkarni urged the participants of the workshop to file the copyrights and patents for the innovations in teaching learning and also to deliver the contents in the classroom by mapping the with the program outcomes of the respective programs.

### **Some Glimpses of the Session:**



Dr. Vinay Kulkarni delivering a hands-on session using the AI Tool in the Workshop



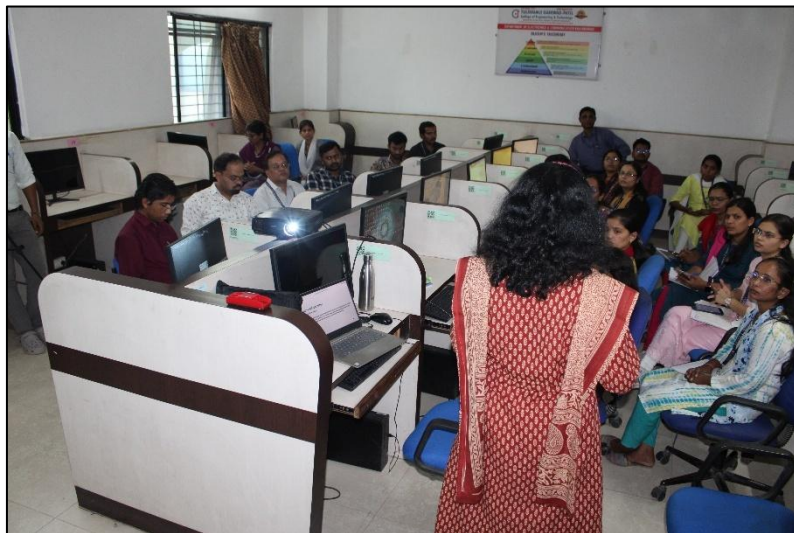
Dr. Vinay Kulkarni interacting with the participants of the Workshop



## 5. Technical Sessions:

Discussions on the Plenary Sessions each day is conducted from 4,00 pm to 5.00 pm. And on 11th April 2025, it is conducted on 11.00 am to 2.00 pm along with an hands on session on Future Trends in OBE.

### Some Glimpses of the Sessions:



## 6. Summary of Discussion:

The one-week national workshop facilitated in-depth discussions and collaborative learning on the intersection of Artificial Intelligence (AI) and Outcome-Based Education (OBE). The following summarizes the key themes and insights shared across the various sessions:

### 1. Understanding Outcome-Based Education (OBE) Framework

- Participants explored the foundational principles of OBE, including Program Outcomes (POs), Course Outcomes (COs), and Program Educational Objectives (PEOs).
- The importance of aligning teaching-learning methods and assessments with Bloom's Taxonomy and OBE performance indicators was emphasized.

### 2. Role of AI in Transforming OBE

- AI tools were discussed as enablers of automation, personalization, and analytics in education.
- Speakers presented real-life use cases where AI improved curriculum design, assessment mapping, and student learning analytics.

### 3. AI Tools Demonstrated

- Participants received demonstrations and hands-on experience with:
  - ChatGPT and other generative AI tools for content creation and student support.

- AI-powered rubrics for assessment and grading.
- Data analytics platforms for tracking attainment of POs and COs.
- Learning Management Systems (LMS) with integrated AI capabilities.

#### **4. Challenges in Implementation**

- Discussions revealed common challenges such as:
  - Lack of digital infrastructure and AI literacy among faculty.
  - Data privacy concerns and ethical use of AI.
  - Resistance to change from traditional pedagogical models.

#### **5. Best Practices and Institutional Case Studies**

- Case studies from institutions that have piloted AI-assisted OBE showed significant improvements in transparency, efficiency, and learning outcomes.
- Panelists stressed the importance of faculty training, continuous evaluation, and stakeholder engagement in successful implementation.

#### **6. Future Roadmap and Action Planning**

- Participants collaborated to develop institution-specific action plans to introduce AI in their OBE implementation.
- Key suggestions included:
  - Organizing faculty development programs on AI in education.
  - Integrating AI tools with existing ERP and accreditation systems.
  - Establishing cross-functional committees for continuous monitoring and evaluation.

#### **7. Feedback and Reflections**

- Participants expressed high levels of engagement and enthusiasm about adopting AI in education.
- The need for sustainable and scalable AI strategies tailored to Indian higher education contexts was a recurring theme.

This workshop served as a critical platform for fostering dialogue, sharing innovations, and building capacity for the digital transformation of OBE through AI technologies.

#### **7. Valedictory Session:**

Valedictory Session is conducted on 11<sup>th</sup> April 2025 at 4.00 pm in the presence of Dr. Vinay Kulkarni ( Professor and Dean – IQAC, D.Y. Patil College of Engineering and Technology, Akurdi, Pune). Participants of the workshop presented their views during the session.

Dr. Radharaman Shaha, Dean – Outcome Based Education presented the summary of the workshop to all the participants of the workshop and urged the participants to implement the key takeaways from the workshop in their routine teaching learning process.

A Quiz was conducted after the session to assess the outcomes from the workshop.

Some of the Glimpses of the Valedictory session is as below:



Dr. Radharaman Shaha (Dean Outcome Based Education) felicitating Dr. Vinay Kulkarni, Dean IQAC, D.Y.Patil College of Engineering, Pune



Participants of the Workshop sharing their views on the Workshop



## 8. Schedule of the Workshop:

Date	Time	Details of the Activity		
07/04/2025	9.30 am – 10.30 am	Registration, High Tea		
07/04/2025	10.30 am – 11.00 am	Inauguration of the One Week FDP		
Date	Time	Session	Topic and Contents	Session Experts
07/04/2025	11.00 am - 12.30 pm	Session-1	<b>Learning Analytics and Data-Driven Decision Making:</b> <ul style="list-style-type: none"> <li>Leveraging AI for analyzing student data and learning patterns.</li> <li>Using analytics to inform educational decisions and enhance program effectiveness.</li> </ul>	Dr. Atul Wadegaonkar, A W Consulting, Pune
	12.30 pm – 2.00 pm	Session-2	<b>Introduction to OBE and its Principles:</b> <ul style="list-style-type: none"> <li>Understanding the fundamentals of Outcome-Based Education.</li> <li>Defining learning outcomes and their significance in educational planning.</li> </ul>	Dr. Sanjay Bodhke, Registrar, Ramdeobaba University, Nagpur
	2.30 pm – 4.00 pm	Session-3	<b>Aligning Learning Outcomes with Curriculum:</b> <ul style="list-style-type: none"> <li>Techniques for aligning curriculum content with specific learning outcomes.</li> <li>Strategies for mapping course objectives to desired educational goals.</li> </ul>	Dr. Radharaman Shaha, Dean – OBE, Tulsiramji Gaikwad Patil College of Engineering, Nagpur
08.04.2025	11.00 am – 12.30 pm	Session-4	<b>Adaptive Learning Platforms:</b> <ul style="list-style-type: none"> <li>Exploring AI-driven adaptive learning systems and their role in personalizing education.</li> <li>Case studies on successful implementation and impact on student outcomes.</li> </ul>	Dr. Amarth Bhide, National Institute of Technology, Puducherry

	12.30 pm – 2.00 pm	Session-5	<b>Role of AI in OBE:</b> <ul style="list-style-type: none"> <li>Overview of how AI technologies can support the implementation of Outcome-Based Education.</li> </ul> <b>Examples of successful AI applications in education.</b>	Dr. Amey Khedikar, Registrar, Tulsiramji Gaikwad Patil College of Engineering, Nagpur
	2.30 pm – 4.00 pm	Session-6	<b>Ethical Considerations and Privacy in AI Education:</b> <ul style="list-style-type: none"> <li>Discussing ethical implications of AI tools in education.</li> </ul> Ensuring data privacy and maintaining a balance between automation and human involvement.	Prof. Ritesh Banpurkar, Dean - IQAC, Tulsiramji Gaikwad Patil College of Engineering, Nagpur
09.04.2025	11.00 am – 12.30 pm	Session-7	<b>Personalized Learning Paths with AI:</b> <ul style="list-style-type: none"> <li>Developing personalized learning paths using AI algorithms.</li> <li>Addressing challenges and considerations in implementing personalized learning approaches.</li> </ul>	Dr. Anil Mokhade, Visvesvaraya National Institute of Technology, Nagpur
	12.30 pm – 2.00 pm	Session-8	<b>Natural Language Processing for Communication Skills:</b> <ul style="list-style-type: none"> <li>Applications of NLP in evaluating and improving students' communication skills.</li> <li>Tools and techniques for incorporating NLP in language-focused courses.</li> </ul>	Dr. Anup Gade, Dean R & D, Tulsiramji Gaikwad Patil College of Engineering, Nagpur
	2.30 pm – 4.00 pm	Session-9	<b>Practical Implementation of AI Simulations:</b> <ul style="list-style-type: none"> <li>Integrating AI-powered simulations into practical and hands-on learning experiences.</li> </ul> Showcasing virtual labs and simulations in various disciplines.	Dr. Shaibal Mukherjee, Indian Institute of Technology, Indore
10.04.2025	11.00 am – 12.30	Session-10	<b>Education Technology Integration in NEP 2020:</b> Exploring the role of technology in	Dr. G.K. Awari, Government

	pm		education and strategies for integrating educational technology effectively in classrooms.	Polytechnic, Nagpur
	12.30 pm – 2.00 pm	Session-11	<b>Case Studies and Best Practices:</b> <ul style="list-style-type: none"> <li>Examining real-world examples of institutions successfully implementing AI in OBE.</li> <li>Identifying best practices and lessons learned from these implementations.</li> </ul>	Dr. Prasad Joshi, IIIT, Controller of Examination, Nagpur
	2.30 pm – 4.00 pm	Session-12	<b>Automated Assessment and Feedback:</b> <ul style="list-style-type: none"> <li>Understanding how AI can streamline the assessment process.</li> </ul> Demonstrations of automated assessment tools and their integration into OBE practices.	Prof. Mrunalini Buradkar, St. Vincent Pallotti College of Engineering and Technology, Nagpur
11.04.2025	12.30 pm – 2.00 pm	Session – 13	<b>Future Trends in AI and OBE:</b> <ul style="list-style-type: none"> <li>Exploring emerging trends and technologies in AI that can further enhance OBE.</li> </ul> Preparing for the future of AI-driven education.  <b>(Hands on Session)</b>	Dr. Prashant Thakre, Controller of Examinations, Tulsiramji Gaikwad Patil College of Engineering, Nagpur
	2.30 pm – 4.00 pm	Session -14	<b>Professional Development for Educators:</b> <ul style="list-style-type: none"> <li>Providing training for educators on using AI tools effectively.</li> </ul> Strategies for continuous professional development in the context of AI-enhanced education.	Dr. Vinay Kulkarni, Professor & Dean Quality Assurance, D.Y. Patil College of Engineering, Pune
	4.00 pm – 5.00 pm	<b>Feedback and Valedictory Session</b>		



## 9. Recommendations:

Based on the discussions, hands-on sessions, participant feedback, and expert inputs during the one-week national workshop on **AI Tools for Effective Implementation of Outcome-Based Education**, the following recommendations are proposed to guide institutions and policymakers in advancing the integration of AI with OBE:

### 1. Institutional Capacity Building

- **Regular Faculty Development Programs (FDPs):** Institutions should conduct periodic training sessions to enhance digital and AI literacy among educators.
- **Dedicated OBE-AI Task Forces:** Create institutional teams responsible for integrating AI tools with OBE frameworks and monitoring progress.

### 2. Integration of AI in OBE Processes

- **Adopt AI-Driven Assessment Tools:** Use AI to automate rubrics, formative assessments, and outcome mapping to reduce manual effort and improve consistency.
- **Utilize Predictive Analytics:** Implement tools that analyze student performance trends to inform curriculum design and improve attainment of learning outcomes.
- **Leverage Generative AI:** Use tools like ChatGPT to support lesson planning, assignment generation, and personalized student feedback.

### 3. Infrastructure and Tool Selection

- **Invest in Scalable EdTech Platforms:** Choose AI-powered Learning Management Systems (LMS) and analytics tools that align with OBE requirements.
- **Ensure Data Security:** Adopt robust data protection policies and practices to manage sensitive educational data responsibly.

### 4. Policy and Governance

- **Develop AI-OBE Guidelines:** Regulatory bodies (e.g., AICTE, NAAC, NBA) should provide standardized guidelines for using AI in educational planning and evaluation.
- **Incentivize Innovation:** Encourage experimentation and innovation through grants, competitions, or awards for institutions pioneering AI integration.

### 5. Collaborative Networks and Knowledge Sharing

- **Establish Academic Consortia:** Promote collaboration among institutions to share best practices, tools, and success stories in AI-enabled OBE.
- **Create Open Educational Resources (OERs):** Develop and distribute shared content, tools, and training modules to lower barriers to adoption.

### 6. Continuous Monitoring and Evaluation

- **Track Implementation Metrics:** Monitor the impact of AI integration on student outcomes, faculty workload, and curriculum quality.
- **Use Feedback Loops:** Regularly collect feedback from faculty, students, and administrators to refine AI tools and OBE strategies.

These recommendations aim to empower educational institutions to modernize their teaching, assessment, and curriculum design processes by responsibly and effectively harnessing the power of Artificial Intelligence within the OBE framework.



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## Youtube Links of the Plenary Sessions of “One Week National Workshop on AI Tools for Effective Implementation of Outcome Based Education”

Sr. No.	Topic	Name of Expert	Link of You Tube
1.	Learning Analytics and Data-Driven Decision Making	Dr. Aatul Wadegaonkar, A W Consulting , Pune	<a href="https://youtu.be/Mrm2ih2h6js">https://youtu.be/Mrm2ih2h6js</a>
2.	Aligning Learning Outcomes with Curriculum	Dr. Radharaman Shaha, Dean OBE, TGPCET	<a href="https://youtu.be/eDMLgIfLo38">https://youtu.be/eDMLgIfLo38</a>
3.	Introduction to OBE and its Principles	Dr. Sanjay Bodkhe, Registrar, Ramdeobaba University, Nagpur	<a href="https://youtu.be/4RsGVdPyLhw">https://youtu.be/4RsGVdPyLhw</a>
4.	Adaptive Learning Platforms	Dr. Amarth Bhide, National Institute of Technology, Puducherry	<a href="https://youtu.be/7br70JmuU7c">https://youtu.be/7br70JmuU7c</a>
5.	Role of AI in OBE	Dr. Amey Khedikar, Registrar, TGPCET, Nagpur	<a href="https://youtu.be/Y-4k5EwZfmk">https://youtu.be/Y-4k5EwZfmk</a>
6.	Direct and Indirect Assessment Tools for Attainment in OBE	Dr. Ritesh Banpurkar, Dean IQAC, TGPCET, Nagpur	<a href="https://youtu.be/GwmWnZmWHQo">https://youtu.be/GwmWnZmWHQo</a>
7.	Personalized Learning Paths with AI	Dr. Anil Mokhadde, Associate Professor, Visvesvaraya National Institute of Technology, Nagpur	<a href="https://youtu.be/iSUfoqLL3RA">https://youtu.be/iSUfoqLL3RA</a>
8.	Natural Language Processing for Communication Skills	Dr. Anup Gade, Dean R&D, TGPCET, Nagpur	<a href="https://youtu.be/VW59erKM0Q0">https://youtu.be/VW59erKM0Q0</a>
9.	Practical Implementation of AI Simulations	Dr. Shaibal Mukherjee, Professor, Indian Institute of Technology, Nagpur	<a href="https://youtu.be/iA0x3n7Kxz8">https://youtu.be/iA0x3n7Kxz8</a>
10.	Education Technology Integration in NEP 2020	Dr. G. K. Awari, Government Polytechnic, Nagpur	<a href="https://youtu.be/DGfqqtEI9bI">https://youtu.be/DGfqqtEI9bI</a>
11.	Case Studies and Best Practices	Dr. Prasad Joshi, Controller of Examination, Indian Institute of Information Technology, Nagpur	<a href="https://youtu.be/j4_pW1nW0mk">https://youtu.be/j4_pW1nW0mk</a>
12.	Automated Assessment and Feedback	Prof. Mrunalini Buradkar, St. Vincent Pallotti College of Engineering and Technology, Nagpur	<a href="https://youtu.be/qW6NdBfyzMY">https://youtu.be/qW6NdBfyzMY</a>
13.	Professional Development for Educators	Dr. Vinay Kulkarni, Professor & Dean IQAC, D.Y. Patil College of Engineering, Pune	<a href="https://youtu.be/9tUPw0tKpU8">https://youtu.be/9tUPw0tKpU8</a>

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