



Professional Development Program on Revolutionizing MOOC Creation with Artificial Intelligence

23-28 June, 2025

JOINTLY ORGANISED BY

Inter University Centre for Teacher Education

BHU, Varanasi, Uttar Pradesh

&

Gujarat Vidyapith, Ahmedabad, Gujarat

(Specially designed for the faculty members from the HEIs of Gujarat)

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DETAILED REPORT

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Inter University Centre for Teacher Education
(An Autonomous Institution of UGC, MoE, Govt. of India)

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Foreword

It gives me immense pleasure to present this report on the Professional Development Program on “Revolutionizing MOOC Creation with Artificial Intelligence,” jointly organized by the Inter University Centre for Teacher Education (IUCTE), Banaras Hindu University, Varanasi, and Gujarat Vidyapith, Ahmedabad, from 23–28 June 2025.



In the contemporary era of digital transformation, the integration of technology into education is not merely desirable but indispensable. Massive Open Online Courses (MOOCs), strengthened with the power of Artificial Intelligence, have emerged as significant pathways for democratizing access to education, enhancing learner engagement, and ensuring inclusivity in line with the vision of NEP 2020.

This program, with the participation of distinguished educators across Gujarat and beyond, sought to empower faculty members with both theoretical foundations and hands-on expertise in AI-powered MOOC design and delivery. The sessions were enriched by eminent resource persons, who not only shared their deep insights but also inspired participants to embrace innovation in digital pedagogy.

I extend my sincere gratitude to Gujarat Vidyapith for its invaluable collaboration and to all resource persons for their expert contributions. I also commend the enthusiastic participation of educators, whose commitment to continuous learning will undoubtedly shape the future of higher education.

It is my firm belief that the outcomes of this program will serve as a catalyst for strengthening digital education ecosystems, nurturing future-ready educators, and advancing India’s position in global higher education.

(Prof. Prem Narayan Singh)

Message

The Professional Development Program on “*Revolutionizing MOOC Creation with Artificial Intelligence*” marks a significant step toward building academic capacity in the fast-evolving field of digital education. Designed in alignment with the guiding principles of the National Education Policy (NEP) 2020, this program addressed the pressing need to equip educators with the skills and vision required to design inclusive, adaptive, and innovative MOOCs.



The sessions highlighted not only the pedagogical principles of online course creation but also the transformative role of AI in enhancing personalization, accessibility, and learner engagement. The practical training with AI tools enabled participants to bridge the gap between theory and practice, ensuring that the acquired skills can be translated directly into classroom and institutional contexts.

I am particularly encouraged by the active engagement of the participants, whose diverse perspectives and contributions enriched the collective learning experience. I also acknowledge with gratitude the efforts of our collaborators at Gujarat Vidyapith, whose ethos of value-based education provided a meaningful context to this initiative.

As we move toward a future where education is increasingly global, digital, and interconnected, such initiatives reflect IUCTE’s unwavering commitment to fostering excellence in teacher education and promoting innovation in pedagogy. I am confident that the participants will carry forward this learning to create impactful, AI-powered MOOCs that resonate with learners and contribute to a more inclusive and sustainable educational landscape.

(Prof. Asheesh Srivastava)

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About IUCTE

The Inter University Centre for Teacher Education (IUCTE), BHU, Varanasi is an Autonomous Institution established by the University Grants Commission (UGC) under Section 12 (ccc). Its core mission is to promote excellence in Teacher Education through interventions in Curriculum, Pedagogy, Assessment, Governance, Policy, Planning, and Research.

IUCTE envisions cultivating quality educators who contribute to a sustainable ecosystem, thereby reshaping the education system in India. It plays a pivotal role in enhancing the quality of Teaching and Research, promoting Technology Integration in Education, and providing Advisory Services. Furthermore, IUCTE fosters National and Global Collaborations and influences Policy Reforms to advance the field of education in general, and Teacher Education in particular.

About Gujarat Vidyapith

Gujarat Vidyapith, Ahmedabad, is a premier institution of higher education founded by Mahatma Gandhi on 18th October 1920 during India's freedom movement. Established as a response to colonial education, the Vidyapith was envisioned as a centre for national education rooted in Indian culture, values, and self-reliance. It is recognized as a Deemed University under Section 3 of the UGC Act, 1956. Grounded in the philosophy of Nai Talim (Basic Education), Gujarat Vidyapith promotes holistic development, ethical responsibility, and community engagement. The university has consistently advanced Gandhian ideals through its academic programs, rural outreach, and integration of manual and intellectual work. It emphasizes the use of mother tongue as the medium of instruction and encourages learning that is socially relevant and experientially grounded.

With its unwavering commitment to character-building, social justice, and sustainable development, Gujarat Vidyapith serves as a beacon of value-based education. The university continues to contribute significantly to nation-building by nurturing educators, researchers, and practitioners who are socially conscious, spiritually grounded, and intellectually equipped to lead India into the future.

Introduction

In the digital era, the convergence of technology and education is reshaping the contours of pedagogy, content delivery, and learner engagement. One of the most revolutionary outcomes of this convergence is the emergence of Massive Open Online Courses (MOOCs)—a modality that democratizes access to education by enabling learning at scale, flexibility, and affordability. The infusion of Artificial Intelligence (AI) into MOOC design further enhances its potential by enabling dynamic content delivery, intelligent tutoring, real-time analytics, and personalized learning experiences. The integration of AI transforms MOOCs into adaptive learning ecosystems that cater to diverse learner needs, mitigate dropout rates, and provide data-driven insights for continuous course improvement. To build institutional and pedagogical capacities in this vital domain, the Inter University Centre for Teacher Education (IUCTE), Banaras Hindu University, in collaboration with Gujarat Vidyapith, Ahmedabad, is organizing a six-day Professional Development Program titled “*Revolutionizing MOOC*”

Creation with Artificial Intelligence.” Specially designed for the faculty of higher education institutions in Gujarat, this program seeks to provide conceptual clarity, hands-on training, and reflective insights into AI-powered MOOC development, aligned with national priorities outlined in the National Education Policy (NEP) 2020.

Gujarat Vidyapith, founded in 1920 by Mahatma Gandhi, is an institution steeped in values of self-reliance, ethical education, and national service. Its foundational ethos—rooted in *Nai Talim*, indigenous knowledge systems, and inclusive learning—provides an inspiring context for this program. The collaboration between IUCTE and Gujarat Vidyapith reflects a shared vision of nurturing educators who are both technologically competent and socially conscious. The NEP 2020, a landmark policy document for India's educational future, underscores the transformative role of technology and digital platforms. In Chapter 23 (Technology Use and Integration), the policy encourages the development and widespread adoption of MOOCs through platforms such as SWAYAM, emphasizing their role in improving access and equity. It advocates for the use of AI and emerging technologies to enhance teaching-learning processes, assess learning outcomes, and provide timely support to students.

Further, Chapter 24 (Online and Digital Education) highlights the necessity of creating a robust digital learning ecosystem, especially in light of challenges exposed by the COVID-19 pandemic. It calls for the training of educators in digital pedagogies, the design of high-quality digital content, and the development of responsive, inclusive, and engaging online learning experiences—objectives that are central to this Professional Development Program. The NEP also advocates for the creation of a National Educational Technology Forum (NETF) to facilitate the exchange of ideas on the use of technology in education. It emphasizes teacher training, the integration of Indian Knowledge Systems (IKS) into digital content, and the promotion of ethically responsible AI use—aligning perfectly with the goals of this program. This initiative thus offers participants a comprehensive learning experience that merges traditional Indian values with cutting-edge AI tools for online education. Through practical exposure, critical discussions, and collaborative exploration, this Professional Development Program aims to empower Gujarat’s educators to become architects of the future digital university—resilient, inclusive, and future-ready.

Objectives of the Professional Development Program

- To equip faculty members of Gujarat with practical knowledge and skills in integrating Artificial Intelligence (AI) for the design, development, and delivery of MOOCs.
- To support the implementation of NEP 2020 (Chapters 23 & 24) by building capacity in AI-driven digital content creation, personalized learning environments, and assessment mechanisms.
- To empower educators to create inclusive, learner-centric online courses that respond to the diverse academic and socio-cultural needs of students in higher education.
- To promote ethical awareness regarding AI use in education, focusing on data privacy, algorithmic fairness, and responsible digital practices.

- To foster a community of digitally empowered educators across Gujarat who can collaborate, innovate, and lead future initiatives in AI-enhanced education.
- To bridge the gap between traditional classroom practices and emerging digital pedagogies by enabling hands-on experience with state-of-the-art AI tools and platforms.
- To encourage the integration of Indian Knowledge Systems (IKS) and local pedagogical values into AI-supported online learning environments.

Key Themes of the Professional Development Program

Policy Orientation: NEP 2020 and Digital Education

- Deep dive into NEP 2020 highlighting integration of technology, AI, and digital platforms for inclusive and quality education.
- Understanding the national vision for transforming teaching-learning and assessment through digital means.

SWAYAM Framework and Regulatory Guidelines

- Overview of the SWAYAM platform: structure, objectives, and implementation strategy.
- Insights into UGC guidelines for MOOC credit transfer, course eligibility, evaluation, and certification.
- Role of National Coordinators (NPTEL, CEC, IGNOU, etc.) in MOOC delivery and quality control.

Pedagogy and Design Principles for MOOCs

- Introduction to MOOC development life cycle including learning objectives, content scripting, video design, and learner engagement.
- Use of instructional design models (ADDIE, SAM) to ensure pedagogical soundness and course modularity.
- Incorporation of learner-centric, constructivist approaches in digital content creation.

AI-Driven Enhancements in MOOC Creation

- Application of AI in personalizing learning pathways, adapting assessments, and enhancing engagement.
- Use of AI for content automation, translation, summarization, and real-time learner analytics.
- Introduction to tools such as ChatGPT, Synthesia, Canva AI, and others in MOOC production.

Hands-on Experience with Tools and Platforms

- Practical sessions on AI-assisted content generation, video production, and interactive learning object creation.
- Integration of MOOCs with LMS platforms like SWAYAM and Moodle.
- Creating metadata, structuring course flow, and optimizing learner interface.

Quality Assurance, Ethical AI, and Inclusivity

- Guidelines for maintaining academic quality, learner feedback integration, and continuous improvement.
- Understanding ethical use of AI with emphasis on fairness, privacy, and algorithmic transparency.
- Embedding Universal Design for Learning (UDL) and multilingual content to promote equity.

Key data of Professional Development Program

- **Total No. of Participants who attended the programme: 42**
- **Total number of country-wise representation: 3 (Delhi, Gujarat, Rajasthan)**
- **Gender-wise participation:**

<i>Gender of Participants</i>	<i>Number</i>
Male	27
Female	15
TOTAL	42

- **Total number of Resource Persons: 9**

Program Proceedings

Day 1: Inaugural Session

On 23 June 2025, the Inter University Centre for Teacher Education (IUCTE), BHU, Varanasi, in collaboration with Gujarat Vidyapith, Ahmedabad, inaugurated and commenced a six-day Professional Development Program on “Massive Open Online Course (MOOC) Creation with Artificial Intelligence” at Gujarat Vidyapith campus, Ahmedabad, Gujarat.

The program began with a collective prayer followed by the lighting of the ceremonial lamp. The initiative aims to provide participants with both theoretical foundations and practical training in the development of MOOCs, digital content creation, building online learning environments, and attaining proficiency in relevant digital tools and platforms.



In his inaugural remarks, Prof. Asheesh Srivastava highlighted that in today’s world, technology is not an option but an absolute necessity. In this context, Dr. Anish Chinubhai Berounet cited the 1997 World Chess Championship, where a computer defeated the reigning world champion, as evidence of the undeniable power of technology.

The Chief Guest, Prof. Naveen Sheth, Former Vice-Chancellor of Gujarat Technological University, stated in his address that the National Education Policy



(NEP) 2020 is a landmark document that will transform India into an educational hub. He described it as a visionary document for the future of India, ensuring that development takes place not by detaching from roots but by staying deeply connected to them. He also emphasized that this program is perhaps the first training-based initiative of its kind in Gujarat.

Prof. Prem Narayan Singh, Director, IUCTE, in his keynote remarks, observed that India has been regarded as a “Vishwaguru” (world teacher) since ancient times, owing to its education system. Education in India has traditionally been experiential in nature. He remarked that experiential learning is not a new concept for India—learning without experience is merely information, not true learning. He also reiterated that IUCTE is consistently working towards preparing teachers who meet the expectations of a future-ready India by making them proficient in modern teaching technologies while also integrating traditional Indian knowledge systems into pedagogy.



The Inaugural Session was chaired by Prof. Harshad Patel, Vice-Chancellor, Gujarat Vidyapith. Prof. Patel expressed that it was an auspicious occasion for IUCTE and Gujarat Vidyapith to come together on one platform to empower teachers. He emphasized that technology has the unique ability to connect the entire world and is positively bridging the gap between urban and rural communities.



The guests were warmly welcomed by Prof. Dipuba Devda (Dean, Faculty of Education, Gujarat Vidyapith), and the Vote of Thanks was proposed by Prof. Jignesh Patel. The program was jointly coordinated by Prof. Jignesh Patel, Dr. Raja Pathak and Dr. Deepty Gupta.



Session 1: E-Learning: Content Creation and Platforms

Dr. Abhishek Kumar, Scientist E, Information and Library Network Centre



In the first session, titled ‘E-Learning: Content Creation and Platforms.’ Dr. Abhishek Kumar unpacked the web-based platforms for content creation. Participants were introduced to India's major digital learning platforms. He shared the way how to use LMS and other e-learning and web-based learning platforms. Development of content and how the content can be delivered, distribution of that developed content and enhancement of learning resources. He also shared the

thoughts of synchronous and asynchronous learning. He also shed light on how to create an audio and audio-visual lecture and what are the key requirements for developing such kinds of lectures Dr. Abhishek also put the emphasis on the importance of team work and the role of people involved in creating an e-content. He also shared with the learners about Infilbnet and edx.org and various other portals which help in creating the content.

The outcome of the session was remarkable. Many new elements related to e-learning were introduced in the session by the speaker and also it focuses on how one can incorporate digital content in traditional methods of teaching and learning .

Session- 2 and 3

Session 2: Digital Initiatives in India in the Context of NEP 2020

Prof. Asheesh Srivastava, Dean (Academics and Research), IUCTE

In the first session, titled “*Digital Initiatives in India in the Context of NEP 2020*”, Prof. Srivastava unpacked the key digital pillars of the National Education Policy 2020. He highlighted how NEP 2020 envisions a flexible, inclusive, and tech-enabled education system. Participants were introduced to India's major digital learning platforms like SWAYAM, DIKSHA, e-PG Pathshala, and National Digital Library, all designed to ensure accessible education for all. He also shed light on how AI can support personalized learning and improve student outcomes through adaptive technologies, making education more



learner-centric than ever before.

What stood out in this session was the emphasis on the changing role of educators—from being traditional knowledge providers to facilitators and mentors in digital spaces. Prof. Srivastava encouraged participants to embrace this change and to explore the exciting possibilities of blended and hybrid models of learning where MOOCs are not isolated, but integrated into regular classroom experiences.

Session 3: Multi-Dimensional Learning System of MOOCs – SWAYAM Guidelines 2024

In the second session, titled “*Multi-Dimensional Learning System of MOOCs: SWAYAM Guidelines 2024*”, the focus shifted to the practical aspects of MOOC creation. Prof. Srivastava introduced participants to the updated SWAYAM guidelines, which promote a structured, interactive, and learner-friendly approach. He explained the Four-Quadrant Model that every SWAYAM course follows—combining video lectures, reading materials, self-assessments, and discussion forums. This model, he noted, helps in catering to diverse learning styles and paves the way for scalable quality education.

Participants learned about quality standards, technical requirements, and collaborative roles involved in MOOC production, including that of course coordinators, technical teams, and

subject experts. The session highlighted the importance of inclusive content, especially in regional languages, and the need for continuous improvement through learner feedback and data analytics. The sessions were not only informative but also inspiring, urging educators to think beyond the conventional and prepare for the future of digital learning. Prof. Srivastava's engaging style and deep insights made the concepts both accessible and actionable. Participants left with a better understanding of how to navigate the MOOC landscape and how AI can be meaningfully applied in course design, delivery, and learner engagement.

Both sessions were highly informative and forward-thinking, providing participants with a clear roadmap for engaging with digital platforms like SWAYAM and integrating artificial intelligence into MOOC creation. The sessions sparked lively discussions and deep reflections, encouraging educators to adopt AI-enabled, learner-centered pedagogies in their institutions. In summary, the sessions by Prof. Asheesh Srivastava marked an enriching start to the professional development program. They empowered participants with knowledge, tools, and motivation to innovate in their own teaching contexts and contribute meaningfully to the national digital education ecosystem. As MOOCs continue to transform learning globally, initiatives like these play a crucial role in preparing educators for the road ahead.

Day 2

Session: 5

Title: Digital Pedagogy: Building Competencies for Online, Blended & Flipped

Dr. Amit Gautam, Deputy Director, UGC-Malaviya Mission Teacher Training Centre (MMTTC) NIEPA, New Delhi



The fifth session of the Professional Development Programme, led by Dr. Amit Gautam, focused on developing essential competencies for effective teaching and learning in digital

environments. Dr. Gautam began by explaining the evolving paradigm of education, where technology has transformed the traditional classroom into a flexible, learner-centered ecosystem. He emphasized that educators must now be proficient in digital pedagogy—not merely using technology as a support tool, but as an integral part of instructional design and delivery.

The session explored three key models—online, blended, and flipped learning—and their relevance to modern higher education. Dr. Gautam defined online learning as a fully digital mode that allows learners to access resources and instruction anytime and anywhere. He explained blended learning as an approach that combines the flexibility of online instruction with the engagement of face-to-face interaction, thus ensuring deeper learner participation. The flipped classroom model, he elaborated, reverses traditional teaching methods by assigning content (videos, readings, or micro-lectures) before class, and utilizing classroom time for problem-solving, discussion, and collaborative learning.

Through case studies and practical examples, participants understood how these pedagogical frameworks encourage active learning, enhance learner autonomy, and support differentiated instruction. Dr. Gautam also introduced digital teaching competencies such as content curation, online facilitation, digital assessment, and learner engagement strategies. He discussed how effective online educators serve as facilitators, mentors, and designers of interactive learning experiences rather than mere transmitters of information. The session encouraged participants to reflect on their current teaching practices and identify ways to adapt them for digital and hybrid formats.

Session: 6

Title: Role of Instructional Design for Creating Digital Content

Building upon the previous discussion, the sixth session deepened participants' understanding of instructional design (ID) as a systematic process for creating effective digital learning experiences. Dr. Gautam explained that instructional design serves as the backbone of any successful online or blended course, ensuring that educational content is pedagogically sound, logically structured, and aligned with learning outcomes. He introduced key ID models such as ADDIE (Analysis, Design, Development, Implementation, and Evaluation), highlighting how these frameworks guide the systematic development of digital learning materials. Participants were encouraged to consider learner needs, context, and accessibility at every stage of course planning.

Dr. Gautam demonstrated how clear learning objectives form the foundation of all instructional decisions. He illustrated the process of aligning objectives with appropriate learning activities, assessments, and multimedia resources. Special attention was given to the principles of cognitive load management, interactivity, and multimodal design, ensuring that digital content promotes engagement without overwhelming the learner. Through interactive discussions and examples, participants learned how to design storyboards, plan learning modules, and integrate various media elements—videos, simulations, quizzes, and infographics—to create engaging and inclusive digital experiences. Dr. Gautam also emphasized accessibility standards and universal design for learning (UDL), ensuring that content can cater to diverse learner needs and abilities.

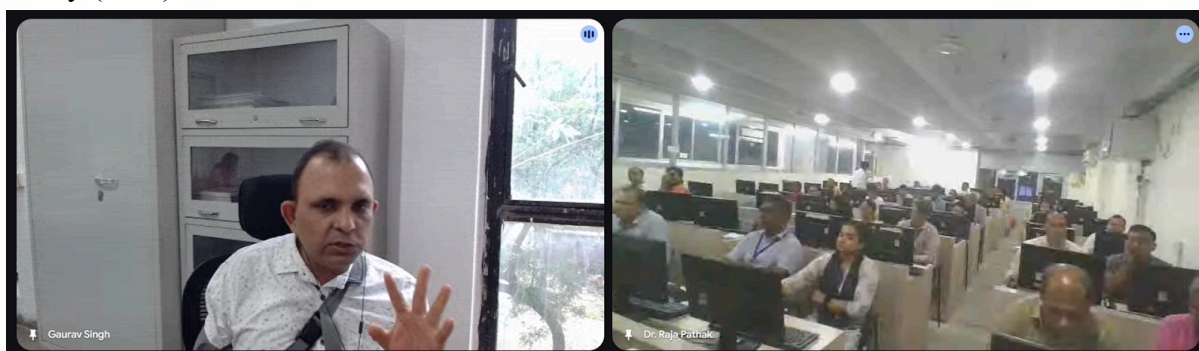
The session concluded with a discussion on quality assurance in digital course design, encouraging educators to continuously evaluate and refine their digital resources. Participants appreciated how instructional design bridges the gap between pedagogy and technology, transforming digital content from static information into dynamic learning experiences.

Session: 7

Title: Drafting MOOCs Proposal: Planning and Development

Resource Person: Prof. Gaurav Singh

The session on *Drafting MOOCs Proposals* was organized as part of the ongoing Professional Development Program on “*Revolutionizing MOOC Creation with Artificial Intelligence.*” The session was designed with specific objectives, including providing a clear understanding of the structure and components of a well-drafted MOOCs proposal, training faculty members in aligning their drafts with academic and technical standards, and exploring the integration of learner needs, subject relevance, and digital pedagogy into course design. These goals reflected the larger vision of enhancing faculty capacities to contribute meaningfully to the digital education ecosystem in alignment with the National Education Policy (NEP) 2020.



The tools and platforms introduced during the session served as essential resources for faculty in their drafting journey. *Google Docs and templates* were highlighted for formatting and collaborative writing, while *SWAYAM Guidelines* were emphasized as the benchmark for compliance with national-level requirements for MOOCs. A structured *MOOCs Framework Checklist* was provided to participants to help review and refine their proposals. A notable feature of the session was the demonstration of *ChatGPT* as an AI-based brainstorming and drafting assistant, helping participants generate proposal language, refine learning objectives, and enhance course outlines.

The session unfolded through a sequence of major activities, beginning with an introduction to MOOCs and their relevance in the present higher education context. Prof. Gaurav Singh underscored the growing need for scalable, accessible, and high-quality online education, positioning MOOCs as a transformative instrument of democratized learning. Participants then explored the format of a standard MOOCs proposal, which included key components such as course title, learning outcomes, weekly modules, assessment strategy, and plans for multimedia integration.

To provide hands-on experience, participants were asked to select a subject from their discipline and engage in a guided drafting exercise. This activity encouraged them to apply principles of instructional design, ensuring clarity, engagement, and alignment of their

courses with learner needs. The role of AI in proposal support was a particularly engaging component of the session, as ChatGPT was used to demonstrate how artificial intelligence can help in content ideation, module structuring, and language refinement. Faculty members were given the opportunity to practice using AI prompts to generate drafts, making the experience interactive and technologically enriching.

Prof. Singh also devoted time to addressing common pitfalls in MOOCs proposals, such as imprecise learning outcomes, weak assessment strategies, and lack of course alignment. He supplemented this with a set of best practices to ensure higher quality and better prospects of approval under SWAYAM norms. The concluding part of the session included an open Q&A, where participants clarified their queries regarding the approval process, evaluation criteria, and benchmarks of content quality mandated by SWAYAM. This interactive discussion helped participants contextualize their learnings and develop confidence in moving forward with actual submissions.

Outcomes of session

Participants gained a clear understanding of MOOCs structure and engaged in hands-on drafting experience. Their confidence in integrating AI tools like ChatGPT increased, and enriched their proposals further. They also developed stronger awareness of quality standards and national guidelines, ensuring readiness for future proposal submissions.

Reflections and feedback gathered at the end of the session indicated that participants found the session highly beneficial. The structured approach of Prof. Gaurav Singh, coupled with real-time practice and the integration of AI tools, was especially appreciated. Many participants expressed motivation to refine and submit complete MOOCs proposals to SWAYAM in the near future, marking the session as both practically impactful and forward-looking.

Session: 8

Topic: Generative AI in Education and Prompt Engineering

Dr. Raja Pathak, Assistant Professor, IUCTE

The session's objectives were to introduce participants to the concept and applications of generative AI in education, familiarize them with key tools such as ChatGPT, Gemini, and Copilot, build an understanding of prompt engineering, develop skills in designing effective prompts for diverse educational purposes, and provide hands-on experience in applying these tools for MOOC content creation.

Dr. Pathak opened his presentation with a panoramic overview of generative AI tools, emphasizing their transformative role in content creation and educational design. He demonstrated how platforms such as ChatGPT, Gemini, and Copilot can serve as trusted companions for educators, enhancing learner engagement and personalizing instructional resources. He underscored that the effective use of AI requires not only familiarity with tools but also thoughtful integration into pedagogy. A major focus of the session was on prompt engineering, described by Dr. Pathak as both an art and a science. He explained that the effectiveness of AI systems is largely dependent on the quality of prompts given to them. Through examples of well-structured and poorly designed prompts, he illustrated how precise, context-rich instructions lead to accurate and pedagogically meaningful outputs. This

segment provided participants with valuable insights into crafting prompts that could optimize AI responses for educational applications.

The interactive design of the session proved to be its highlight. Participants were encouraged to experiment directly with AI tools, creating and testing prompts in real time. Beyond



exploration, Dr. Pathak guided participants through practical applications of prompt engineering for MOOC development. Assignments included designing prompts for video scripts, quiz questions, infographics, and learner personas. These exercises connected directly to participants' ongoing projects, making the learning immediately relevant and actionable.

Outcomes of session

Participants gained awareness of cutting-edge AI tools available for education, developed skills in crafting effective prompts, and practiced applying prompt engineering principles in real time. They also engaged critically with issues of AI detection and ethics, while building confidence in applying AI tools to MOOC design. The peer interaction, combined with guided exercises, ensured that participants left not only with theoretical understanding but also with practical strategies to integrate AI into their instructional work.

Day 3

Session: 9

Title: Open Educational Resources for Developing Learner- Centric MOOCs

Dr. Ramesh Sharma, Former Director, IGNOU

As part of the professional development initiatives, a comprehensive session on “*Open Educational Resources (OER) for Developing Learner-Centric MOOCs*” was organized, focusing on the dual aspects of open educational practices and Intellectual Property Rights (IPR) in digital education. The session aimed to explore the role of OER in creating accessible and learner-centric MOOCs, identify authentic repositories for sourcing OER, build awareness about licensing and copyright, and equip educators with tools to create, curate, and share content responsibly. In addition, the session highlighted the commercialization, administration, enforcement, and human capital development dimensions of IPR, providing a holistic view of open education in the contemporary context.

The session began with an introduction to Open Educational Resources (OER), emphasizing their role in democratizing education by providing free, reusable, and adaptable content for teaching and learning. Participants were introduced to the significance of learner-centric design in MOOCs, where OER serve as critical enablers for creating interactive, flexible, and context-sensitive content. The discussion highlighted how OER help educators move beyond rigid course structures, enabling them to design MOOCs that cater to diverse learners across disciplines while reducing costs and enhancing accessibility.

A major focus of the session was on Intellectual Property Rights (IPR), which was explained as an essential framework for safeguarding creativity and innovation while responsibly using external resources. Various forms of IPR were introduced with examples for better understanding. Patents were discussed in detail, with references to innovations from university incubation centres, globally significant cases like Volvo’s three-point seatbelt, COVID-related drug patents, and Elon Musk’s decision to release Tesla patents to the public. Other forms of IPR such as Copyright (protection of books, software, and course content), Trademarks and Service Marks (logos, identifiers, and tools like Saarthi Chatbot), Industrial Design Protection (aesthetic aspects of products), and Trade Secrets (confidential models and processes) were also described with practical examples.

The session then explored the relationship between OER and licensing frameworks, particularly Creative Commons, stressing the importance of attribution, proper usage, and awareness of license categories. Participants were made aware that even though OER are open, responsible use requires adherence to licensing agreements to avoid copyright conflicts. Practical examples were shared where educational institutions faced challenges due to misinterpretation of licenses, underscoring the need for caution.

Outcomes of session

Educators gained clarity on how to source, adapt, and integrate OER effectively into MOOC development. They also developed a strong understanding of the legal dimensions of IPR, enabling them to protect their own work and ethically use the work of others. The detailed

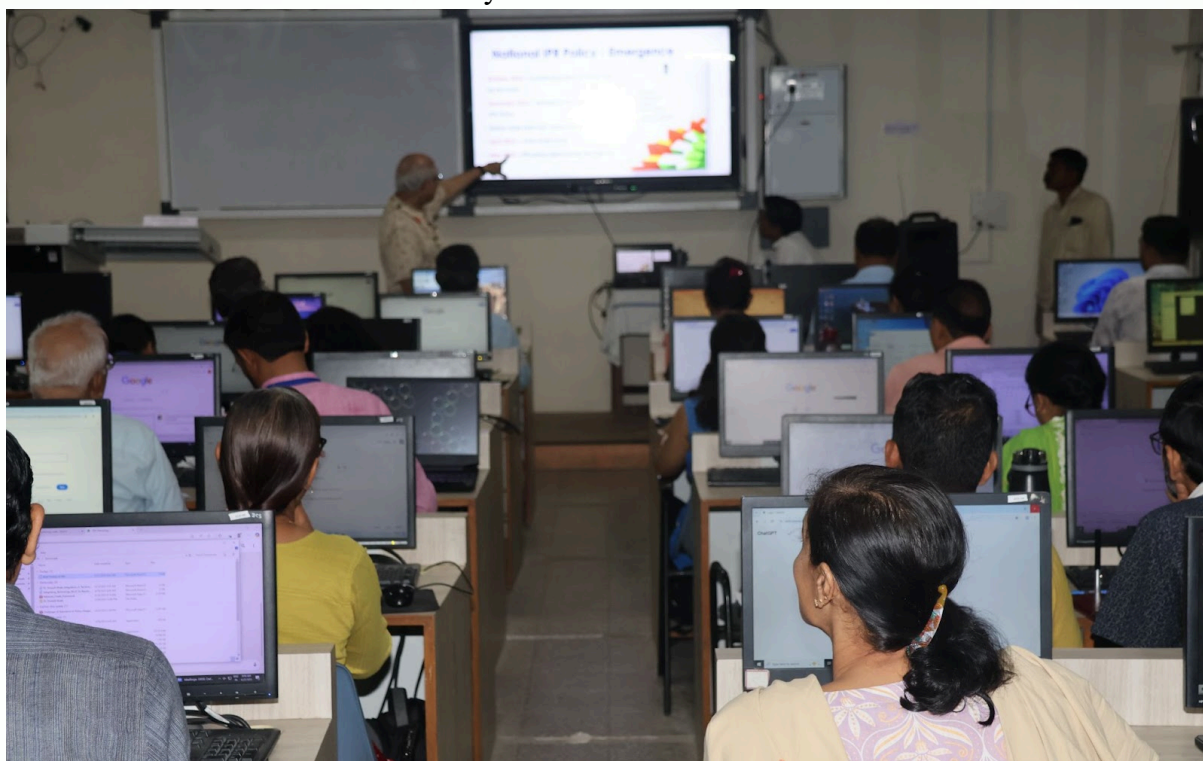
case studies on patents and infringement expanded participants' awareness of real-world implications. Moreover, the session promoted a culture of **collaboration and sharing**, encouraging educators to contribute actively to the OER movement while respecting legal frameworks.

Session: 10

Title: Cyber Security & Data Privacy Considerations for MOOCs

Dr. Ramesh Sharma, Former Director, IGNOU

The session addressed one of the most critical and timely concerns in digital education—the safeguarding of learners' data, institutional integrity, and the overall security of online platforms. In today's era, where massive open online courses (MOOCs) rely heavily on digital infrastructure, ensuring cyber resilience and protecting personal information are central to the success and sustainability of online education.



The session began by setting the context for cyber security challenges in MOOCs. Participants were introduced to the wide range of threats that online education platforms face, including data breaches, phishing attacks, identity theft, ransomware, and denial-of-service attacks. It was emphasized that MOOCs, by their very nature, involve the collection of large volumes of sensitive learner data such as personal identifiers, academic performance, and in some cases, financial information. This makes them particularly attractive targets for cybercriminals. The speaker explained that even a single data breach can compromise institutional credibility, erode learner trust, and result in significant legal and financial repercussions.

A critical component of the session focused on the principles of data privacy in the context of MOOCs. The importance of developing and implementing strong data protection policies, adhering to national and international standards such as the General Data Protection Regulation (GDPR), and ensuring compliance with local laws was highlighted. The

discussion emphasized that privacy is not merely a technical requirement but an ethical responsibility that educational institutions must uphold. Measures such as data encryption, anonymization, secure authentication protocols, and regular vulnerability assessments were presented as essential strategies to minimize risks.

The session also explored ethical considerations that extend beyond technical safeguards. Participants were sensitized to issues such as algorithmic bias, where AI-driven learning platforms may inadvertently disadvantage certain groups of learners, and digital overdependence, where excessive reliance on technology may reduce critical human engagement in education. The speaker highlighted the need for responsible AI usage, ensuring that algorithms used in MOOCs are transparent, fair, and regularly audited to maintain inclusivity and equity in digital learning environments.

Outcomes of session

Key outcomes of the session included a deeper understanding of cybersecurity threats in MOOCs, increased awareness of data privacy regulations, and practical insights into implementing protective measures. Participants left with strategies for designing secure MOOCs, including the integration of ethical AI, learner consent mechanisms, transparent data policies, and the adoption of global best practices in cyber hygiene.

Session: 11

Title: Report: Script to Screen – Crafting Engaging MOOCs

Dr. Deepty Gupta, Assistant Professor, IUCTE

The session provided participants with a holistic understanding of how to design, script, and storyboard engaging digital content for online learning. It particularly emphasized the integration of pedagogical theory with digital media practices, equipping educators with the tools and strategies necessary for crafting learner-centered MOOCs.

The session began by introducing participants to the SWAYAM guidelines and the broader modalities of online learning in India. The facilitator highlighted how MOOCs must align with the structural, technical, and content-related requirements of the SWAYAM platform, including prescribed formats, module durations, and types of content. This segment created awareness of how MOOCs are not merely repositories of digital content but structured learning environments that need to reflect academic rigor, curricular relevance, and accessibility. Following this, attention was directed towards the ADDIE instructional design model—Analysis, Design, Development, Implementation, and Evaluation. Each stage of this systematic approach was discussed in detail, underscoring its role in ensuring that MOOC content is both goal-oriented and learner-centered. Through examples, participants were shown how to connect course objectives with learner needs, identify gaps in existing resources, and plan instructional strategies that maximize engagement and comprehension.

A key highlight of the session was the focus on scriptwriting as the foundation of e-content development. The facilitator emphasized that the script is the “blueprint” of any MOOC, defining the structure, flow, tone, and level of interactivity. Good scriptwriting was explained as simple, conversational, and learner-friendly, with strong hooks, clear objectives, and seamless integration of interactive elements such as quizzes, reflective pauses, or case scenarios. Participants were introduced to different script types including lecture-style,

interviews, role-plays, explainers, and voice-over-based formats. Special emphasis was placed on the “7 Cs of scriptwriting”—Context, Content, Creativity, Clarity, Communication, Connectivity, and Credibility—as guiding principles for effective writing.

The session then moved into storyboarding, presented as a vital pre-production step that visually maps out how the script will unfold on screen. Both thumbnail and digital storyboard formats were explained, with examples showing how they enable continuity, clarity, and collaboration between educators, animators, editors, and production teams. Tools like Boords, Storyboarder.ai, and KROCK.IO were introduced to demonstrate how digital platforms can streamline the storyboard creation process. To reinforce learning, participants were given a hands-on assignment where they used AI tools such as ChatGPT or Jasper to draft a two-minute video script. They were then asked to convert the script into a storyboard and prepare a reflective report documenting their experience. This practical exercise encouraged participants to apply theoretical knowledge in real time while gaining confidence in using AI-powered tools for MOOC development.

Outcomes of session

By the end of the session, participants reported several key outcomes. They developed a comprehensive understanding of the MOOC lifecycle—from proposal writing to content delivery. They gained clarity on SWAYAM guidelines, mastered the ADDIE model, and explored diverse educational video formats ranging from lectures to animations. Importantly, they built concrete skills in scriptwriting and storyboarding, equipping themselves to design interactive, creative, and high-quality MOOCs. The session also enhanced awareness of how multimedia elements—animations, maps, infographics, case studies, and podcasts—can enrich learner engagement and outcomes.



Session: 12

Title: Creating - Audio/Podcast Resources

Dr. Raja Pathak, Assistant Professor, IUCTE

The twelfth session of the Professional Development Program on “*Revolutionizing MOOC Creation with AI*” was facilitated by Dr. Raja Pathak, who illuminated the transformative potential of audio and podcast-based resources in contemporary education. The session aimed to equip faculty members with practical competencies in creating, editing, and refining educational audio content through open-source and AI-driven tools. Designed in a hands-on and interactive format, the workshop effectively blended theoretical understanding with practical application, fostering participants’ confidence in utilizing podcasting as an engaging, learner-centered pedagogical medium.



The session commenced with an exploration of podcasting as an educational tool, wherein participants shared their preconceptions and experiences—associating podcasts with online audio content, informal interviews, and narrative-based teaching methods akin to traditional radio formats. This collaborative exchange fostered an open and exploratory learning environment. Dr. Pathak then elucidated the distinction between broadcasting and podcasting, emphasizing the latter’s flexibility, on-demand accessibility, and

niche-focused nature, in contrast to the linear, schedule-dependent characteristics of conventional broadcasting. This comparative analysis underscored the growing significance of podcasting within the digital learning ecosystem.

A key highlight of the session was an engaging exercise in script development using ChatGPT. Participants selected topics relevant to their disciplines and experimented with prompt engineering to generate coherent, well-structured podcast scripts. This activity not only familiarized them with AI-assisted writing but also underscored the importance of clarity, conversational tone, and logical flow in effective audio communication. Building upon this, participants employed NotebookLM to transform their scripts into dialogue-based podcast conversations. A live demonstration on the theme “*Artificial Intelligence and its Origin*” showcased how AI tools can simulate authentic, dynamic dialogues between speakers, thereby enhancing the relatability and engagement of educational content.

Dr. Pathak further introduced mind mapping as a powerful visual technique for idea organization. Participants practiced structuring key points through mind maps before drafting their podcast scripts, which notably improved content coherence and flow. Subsequently, they

explored NotebookLM’s “Study Guide” feature to generate concise, structured study notes derived from their scripts. These notes were identified as valuable supplementary learning materials, contributing to a more integrated and enriched MOOC design process.

Another notable dimension of the session was the emphasis on multilingual engagement. Faculty members explored the use of AI tools for generating scripts and podcasts in regional languages, with Gujarati serving as the primary example. This exercise prompted discussions on inclusivity, accessibility, and the broader reach of MOOCs through localized and linguistically diverse content.

Participants also engaged in enhancing their podcasts with interactive elements, such as embedded questions, reflective interjections, and simulated interviews. To further elevate the auditory experience, they experimented with AI-generated music and explored copyright-free audio repositories to integrate suitable background scores. These activities expanded participants’ creative capacities and illustrated how subtle audio enhancements can significantly elevate learner engagement and retention.

Outcomes of the Session

By the conclusion of the session, participants had produced tangible outputs, including draft podcast scripts, edited audio files, structured study notes, and finalized podcasts enriched with background music. The key outcomes encompassed:

- Hands-on acquisition of digital and creative skills;
- Enhanced confidence in utilizing AI-powered tools;
- Proficiency in designing structured and innovative audio-based learning content; and
- Awareness of the pedagogical potential of multilingual and interactive podcasting in broadening the impact and inclusivity of MOOCs.

Overall, the session was a significant step toward integrating AI-enhanced audio resources into open and flexible learning environments, reinforcing the role of technology as a catalyst for pedagogical innovation.

Day 4

Session: 13

Title: Overview of Immersive & Emerging Technologies (AR/VR)

Dr. Ramesh Sharma, Former Director, IGNOU

The fourth day of the *Professional Development Program on Revolutionizing MOOC Creation with Artificial Intelligence* was dedicated to immersive and emerging technologies, particularly Augmented Reality (AR) and Virtual Reality (VR). The objective of the session was to introduce participants to the fundamentals of AR and VR and to demonstrate their practical applications using accessible tools and devices. The session was conducted by Dr. Ramesh Sharma, who skillfully combined theoretical concepts with live demonstrations to make the learning experience engaging and memorable.

The session began with an introduction to Augmented Reality (AR), where Dr. Sharma emphasized how easily AR can be integrated into daily life using mobile devices. He gave a

simple yet fascinating example—typing “tiger” in the Google search engine and then selecting the 3D option with ‘view in your space’. This allowed participants to project a lifelike 3D model of a tiger into their own environment through their smartphones. Many participants expressed amazement at this demonstration, which immediately made AR relatable and easy to understand. The exercise broke the misconception that AR requires complex or expensive devices, showcasing instead that everyday tools like mobile phones can serve as gateways to immersive experiences.

Following this, the discussion shifted to Virtual Reality (VR), where Prof. Sharma explained the different headset options available in the market, such as Sony PlayStation VR, Oculus (Meta Quest), and HTC Vive. He also shared the key distributors of these devices, providing participants with a clear understanding of the current VR ecosystem. What made the session particularly impactful was the hands-on component—Dr. Sharma had brought two to three VR headsets for demonstration. They were able to immerse themselves in virtual environments, observe the mechanics of VR displays, and appreciate how such tools can be integrated into teaching and learning. This practical experience helped demystify VR and made it accessible to all participants, regardless of their prior exposure to the technology.

Another important part of the session was the discussion on the types of VR experiences—non-immersive, semi-immersive, and fully immersive VR. Through this



explanation, participants were able to differentiate between varying levels of immersion, from desktop-based simulations to fully immersive headsets that block out the physical world. Prof. Sharma connected these ideas to the larger concept of Extended Reality (XR), helping participants relate advanced technologies to the spectacular graphics they have seen in popular films such as those in the Marvel Universe. This connection bridged the gap between entertainment and education, showing participants how XR can enhance both engagement and imagination in digital learning environments.

Outcomes of session

Participants gained an understanding of how easily AR can be accessed through mobile devices, making it a practical tool for education. They acquired hands-on experience with VR headsets, which expanded their comfort with immersive technologies. They also learned the

differences between non-immersive, semi-immersive, and fully immersive VR systems, developed a deeper conceptual understanding of Extended Reality, and became familiar with various commercial VR headsets currently shaping the market.

Session: 14

Title: Crafting Video Resources

Dr. Deepty Gupta, Assistant Professor, IUCTE

This session was highly interactive and engaging, designed to enrich participants with practical knowledge of AI-powered tools for video creation and editing. With the growing importance of multimedia content in MOOCs and classroom teaching, the session offered participants a valuable opportunity to learn about innovative platforms that can transform text-based content into dynamic video learning experiences.

Dr. Gupta began the session by introducing two major AI tools: Invideo and Studio-d.id.com. The participants were first guided through the Invideo platform, which allows users to convert a written script into a video. This was particularly relevant to educators as it directly linked to creating lecture videos for MOOCs or classroom teaching. Participants generated a video using pre-developed scripts, experimenting with media integration, voice-overs, and editing options. They learned how to modify elements such as images, audio files, and textual overlays to enhance the clarity and appeal of their videos. The hands-on activity not only familiarized them with the interface but also helped them understand the end-to-end process of creating polished digital resources that can be seamlessly embedded into online courses.



The session then moved on to Studio-d.id.com, an AI-driven platform that fascinated participants by enabling the creation of personalized avatars. Dr. Gupta demonstrated how an avatar could be generated using an individual's image and synchronized with an audio file of a lecture or message. This provided participants with a glimpse into the future of digital teaching, where avatars can serve as engaging substitutes for direct camera recordings, offering flexibility and novelty in content delivery. Such tools are especially useful for educators who may be camera-shy but still wish to deliver personalized, engaging sessions. In addition to these two AI tools, participants were introduced to Adobe Express and OpenShot, both powerful yet user-friendly platforms for editing and enhancing video resources. While Adobe Express provided creative templates for visually appealing content,

OpenShot offered a free, open-source option for detailed video editing. These tools allowed participants to refine their raw video outputs, adding layers of professional polish to their educational content.

Interactive segments formed the backbone of this session, as participants actively experimented with the tools under the guidance of the resource person. Dr. Gupta also emphasized the responsible use of AI in education, stressing the need for originality, ethical handling of AI-generated visuals, and ensuring accessibility for all learners. This discussion sensitized participants to the broader implications of using AI in content creation, urging them to strike a balance between innovation and academic integrity.

Outcomes of the session

Participants gained an understanding of the process of crafting videos for online lecture sessions using Invideo and Studio-d.id.com. They applied concepts through hands-on practice, downloading and experimenting with the tools. They also created and edited their own video resources during the session, gaining both technical skills and confidence in integrating AI tools into their professional work.

Session-15: Creating Interactives using generative AI and

Session-16: Creating Graphics using Generative AI

Dr. Raja Pathak, Assistant Professor, IUCTE



The session on *Generative AI Tools for Creating Engaging Digital Content* was an integral part of the Professional Development Program, designed to equip educators, trainers, and content creators with practical skills to leverage AI for interactive and visually appealing learning experiences. The primary objective of the session was to introduce participants to the

fundamentals of generative AI, highlight its relevance in digital content creation, and provide hands-on experience with platforms such as Curipod, Gamma, Canva, and Napkin. Participants were guided through the process of designing interactive lessons, AI-powered presentations, games, quizzes, and graphic assets that could be customized for diverse educational, training, and communication purposes.

The session commenced with an introduction to generative AI, emphasizing its principles, capabilities, and transformative potential in accelerating content creation. Participants explored how AI can personalize learning experiences, increase learner engagement, and streamline the design workflow, laying a conceptual foundation for the practical activities that followed. In the first segment, the focus was on *Creating Interactives Using Generative AI*, where participants were introduced to Curipod. They learned to generate live polls, quizzes, brainstorming exercises, and word clouds that could adapt dynamically to participant input, effectively enhancing interactivity in digital classrooms. This was followed by exploration of Gamma, a platform for generating polished AI-powered presentations. Participants discovered how storytelling, visual design, and interactive elements can be integrated seamlessly to produce professional-quality presentations with minimal effort.

The second segment focused on *Creating Graphics Using Generative AI*. Participants used Canva's AI capabilities to produce illustrations, icons, and visual assets aligned with learning objectives, experimenting with text-to-image generation, brand kits, and customizable templates. The session further introduced Napkin, a visual thinking tool that enables participants to convert ideas into AI-generated mind maps and visual notes, promoting clarity, engagement, and retention. Throughout these exercises, participants practiced step-by-step workflows under facilitator guidance, receiving feedback and troubleshooting assistance to ensure practical comprehension. Ethical considerations were also discussed extensively, including copyright, accuracy, and transparency in AI-generated content, reinforcing responsible and informed usage of these tools.

By the end of the session, participants had created at least one interactive learning activity, an AI-generated presentation or educational game, and a set of custom graphics ready for implementation in classrooms, training sessions, or communication materials. They developed the confidence to navigate multiple AI tools, design engaging learning experiences with minimal technical complexity, and integrate AI workflows into their professional practice. Additionally, participants reflected critically on the ethical implications of AI in content creation and explored ways to collaborate and share AI-powered projects with peers.

In conclusion, the session successfully demystified generative AI, fostering creativity, technical competence, and pedagogical innovation among participants. By combining theoretical insights with hands-on practice, the session enabled educators to understand the strengths and limitations of each platform, apply AI tools responsibly, and enhance the quality, interactivity, and visual appeal of their digital content. Participants left empowered with practical skills, resource guides, and actionable examples, ready to transform their teaching, training, and professional communication using AI-enhanced content creation.

Outcomes of session

Confident navigation of generative AI tools, creation of interactive and visual learning materials, integration of AI workflows into professional practice, critical evaluation of ethical considerations, and collaborative project sharing among participants.

Day 5

Session 17: Introduction to LMS: Platforms, Core Features & Course Structure Setup

Session 18: Hands-on Practice of LMS: Principles of Video Content Creation

Session 19: Content Integration & Activity Design within an LMS and Hands-on for LMS (Moodle)

Resource Person: Prof. J.V Madhusudan, Professor & Head, Department of Education and Education Technology, School of Social Sciences, University of Hyderabad

As part of the ongoing six-day Professional Development Program on *Revolutionizing MOOC Creation with AI*, Sessions 17, 18, and 19, conducted on 27th June 2025 by Prof. J.V. Madhusudan, focused on providing participants with an in-depth understanding of Learning



Management Systems (LMS) and their practical applications in online course design. These sessions were designed to equip educators, instructional designers, and MOOC developers with the conceptual knowledge, technical skills, and hands-on experience required to create engaging, interactive, and learner-centered online courses.

The seventeenth session introduced participants to the concept, platforms, and features of LMS. Prof. Madhusudan elaborated on the critical role LMS play in delivering education at scale and highlighted various global platforms, including Moodle, Canvas, Blackboard, and proprietary systems. He explained core LMS functionalities such as learner registration, content delivery, assessments, analytics, communication tools, and reporting mechanisms. A significant emphasis was placed on course structuring within an LMS, including module

design, lesson sequencing, quizzes, assignments, and certification pathways. By comparing platform capabilities and scalability, participants gained clarity on selecting suitable LMS solutions for their institutional contexts and appreciated how systematic course design supports learner engagement and outcomes.

Session eighteen transitioned from theory to practice, focusing on video content creation, a key element of MOOCs. Prof. Madhusudan discussed pedagogical principles for designing effective video lectures, emphasizing scripting, pacing, segmenting content, and engaging delivery techniques. He demonstrated accessible tools for recording and editing videos compatible with LMS platforms and guided participants through the process of storyboarding mini video lessons. Hands-on exercises allowed participants to experiment with recording, editing, and uploading video content, reinforcing best practices for clarity, accessibility, and learner engagement. The interactive format enhanced participants' confidence in producing high-quality video lessons that could be integrated seamlessly into online courses.

The nineteenth session concentrated on content integration and interactive activity design within an LMS, with a specific focus on Moodle. Participants learned to upload and organize video lessons, create modules, develop quizzes, set up discussion forums, and manage learner tracking and feedback. Prof. Madhusudan demonstrated how to align activities and assessments with learning objectives, ensuring coherent, pedagogically sound course structures. Guided hands-on exercises enabled participants to practice integrating multimedia, designing learner-centric activities, and creating interactive environments that foster active engagement and collaboration. The session also emphasized the importance of structuring content to maximize accessibility, usability, and learner satisfaction.

Outcomes of session

Overall, these three sessions were highly appreciated for their practical relevance, clarity, and participant-centered approach. The combination of conceptual discussions, demonstrations, and hands-on activities allowed participants to apply LMS functionalities directly, creating a solid foundation for effective MOOC design. Outcomes included a clear understanding of LMS features, practical skills in video lesson production, confidence in content integration, and the ability to design interactive learning experiences. Participants left equipped to utilize LMS platforms efficiently, ensuring high-quality, pedagogically robust, and engaging MOOCs that cater to diverse learner needs.

Session: 20

Title: AI-Based Adaptive Assessment

Resource Person: Dr. Deepty Gupta

Dr. Deepty Gupta conducted a session on AI-Based Adaptive Assessment, focusing on innovative tools and strategies to enhance online evaluation and learner engagement. The session aimed to familiarize participants with adaptive assessment methods, demonstrate AI-powered tools for creating dynamic quizzes and evaluations, and provide practical experience in designing assessments tailored to diverse learner needs.

Dr. Gupta began by introducing the concept of adaptive assessment, explaining how AI can analyze learners' responses in real time to adjust question difficulty, provide immediate feedback, and personalize learning paths. Emphasis was placed on the benefits of adaptive

assessments in improving learner motivation, identifying knowledge gaps, and supporting data-driven instructional decisions. Participants explored the design principles behind



effective online assessments, including alignment with learning objectives, balanced difficulty levels, and incorporation of interactive elements.

Several AI-based tools were demonstrated during the session. Blooket was introduced as an engaging platform for gamified quizzes and formative assessment. Questionwell and Lumi were explored for creating adaptive, interactive, and secure assessments suitable for MOOCs and classroom use. Dr. Gupta provided hands-on demonstrations of generating question banks, setting branching logic, and integrating multimedia elements. Participants practiced designing sample assessments, experimenting with AI features that automatically adjust questions based on learner performance.

The session also highlighted best practices for online assessment, including data privacy, fairness, and accessibility considerations. Participants discussed strategies for leveraging assessment analytics to inform instructional improvements and enhance learner outcomes.

Outcomes of session

By the end of the session, participants had gained a solid understanding of AI-based adaptive assessment, practical skills to implement these tools in online courses, and confidence to design learner-centered, engaging, and responsive assessments. The session successfully bridged theoretical principles with practical application, preparing educators to integrate adaptive evaluation into MOOCs and other digital learning environments.

Day 6

Session: 21, 22, 23

Title: Storyboarding and Video Production for MOOCs

Resource Person: Dr. Amitosh Dubey, Deputy Director, Electronic Media Production Centre (EMPC), IGNOU, Delhi

The concluding session of the Professional Development Program on *Revolutionizing MOOC Creation with Artificial Intelligence* focused on storyboarding, scriptwriting, and professional video production, conducted by Dr. Amitosh Dubey. The session aimed to equip participants with the foundational skills and practical knowledge required to design high-quality educational videos for MOOCs. Dr. Dubey, drawing from his extensive experience and educational programming, introduced participants to the essentials of scriptwriting, emphasizing clarity, structured flow, and learner engagement as key components of an effective educational narrative. He highlighted storyboarding as a critical pre-production tool that enables visualizing video flow, planning camera angles, and ensuring pedagogical coherence, thereby bridging conceptual design with practical production. To inspire creativity and disciplined storytelling, Dr. Dubey shared an illustrative case study of legendary filmmaker Satyajit Ray, focusing on his innovative use of storyboards in films like *Pather Panchali*. This discussion provided participants with valuable insights into combining creativity with structured planning to craft compelling visual narratives, motivating them to apply similar techniques to their own MOOC content.



A significant portion of the session was dedicated to hands-on, studio-based learning. Participants visited a professional recording studio where they practiced essential aspects of video production, including framing, lighting, sound control, and presentation techniques. Both individual and group recordings were carried out, giving participants the opportunity to translate theoretical knowledge into practical experience. This immersive exposure demystified the technical complexities of professional video production and enhanced participants' confidence in handling recording environments. Following the recording

exercises, Dr. Alap guided participants through the post-production phase, demonstrating video editing techniques and showcasing the final polished outputs during the valedictory function. Observing the complete production cycle—from scriptwriting and storyboarding to shooting and post-production—provided participants with a holistic understanding of educational video creation.

Throughout the sessions, Dr. Dubey's expertise, generosity, and practical approach encouraged experimentation, critical thinking, and creative problem-solving. Participants appreciated his supportive guidance, which allowed them to gain confidence in navigating the complexities of MOOC video production independently. The interactive nature of the session, combined with live demonstrations and hands-on practice, ensured that participants not only learned key principles but also acquired tangible skills they could directly apply in their professional contexts.

Outcomes of session

Participants developed a clear understanding of scriptwriting and storyboarding for educational video content, gained insights into visual storytelling inspired by renowned filmmakers, and acquired hands-on experience in studio recording techniques. They also observed post-production workflows and learned practical editing methods to produce professional-quality videos. By the end of the program, participants were empowered to design, produce, and edit MOOCs with high production value, enhanced learner engagement, and pedagogical integrity. These final sessions provided a creative and practical capstone to the professional development program, leaving educators inspired, confident, and well-equipped to integrate video-based content into their online courses effectively.

Valedictory

On 28th June 2025, the concluding session of the six-day Professional Development Program on “Massive Open Online Course (MOOC) Creation through Artificial Intelligence” was organized at the Gujarat Vidyapith campus, Ahmedabad, under the joint aegis of the Inter-University Centre for Teacher Education (IUCTE), BHU, Varanasi, and Gujarat Vidyapith, Ahmedabad, Gujarat. The program commenced with a collective prayer and the traditional hymn of Gujarat Vidyapith.



Following the inauguration, Dr. Raja Pathak presented the program report, highlighting that the sessions were designed to provide participants with practical training and theoretical grounding in MOOC development, digital content creation, building online learning environments, and proficiency with relevant tools and platforms for content development. In a special address, Prof. Ajay Parikh, Chairperson of the Department of Computer Science, emphasized the significance of the National Education Policy (NEP) 2020 in the context of MOOCs. Prior to the main guest address, Dr. Deepty Gupta showcased the sample videos created by participants, and feedback was provided by attendees.



The chief guest for the concluding session was Dr. Himanshu Patel, Registrar, Gujarat Vidyapith, Ahmedabad. In his address, he stressed that achieving equity and inclusion in education, as envisioned by NEP 2020, requires dedicated efforts from all higher education



stakeholders. He encouraged teachers to actively move toward developing MOOCs to realize the policy's objectives. The distinguished guest, Dr. Amitosh Dubey, EMPC, Indira Gandhi National Open University (IGNOU), Delhi, highlighted the critical role of MOOCs and engaging digital content in enhancing teaching quality in higher education institutions. He noted that such resources not only provide teachers with innovative teaching tools but also

significantly enhance student participation, understanding, and skill development. The program was concluded with a vote of thanks by Dr. Nitin Kumar Dhadodara, with overall session coordination by Prof. Jijesh Patel, Dr. Raja Pathak and Dr. Deepty Gupta.

Outcomes of the Program

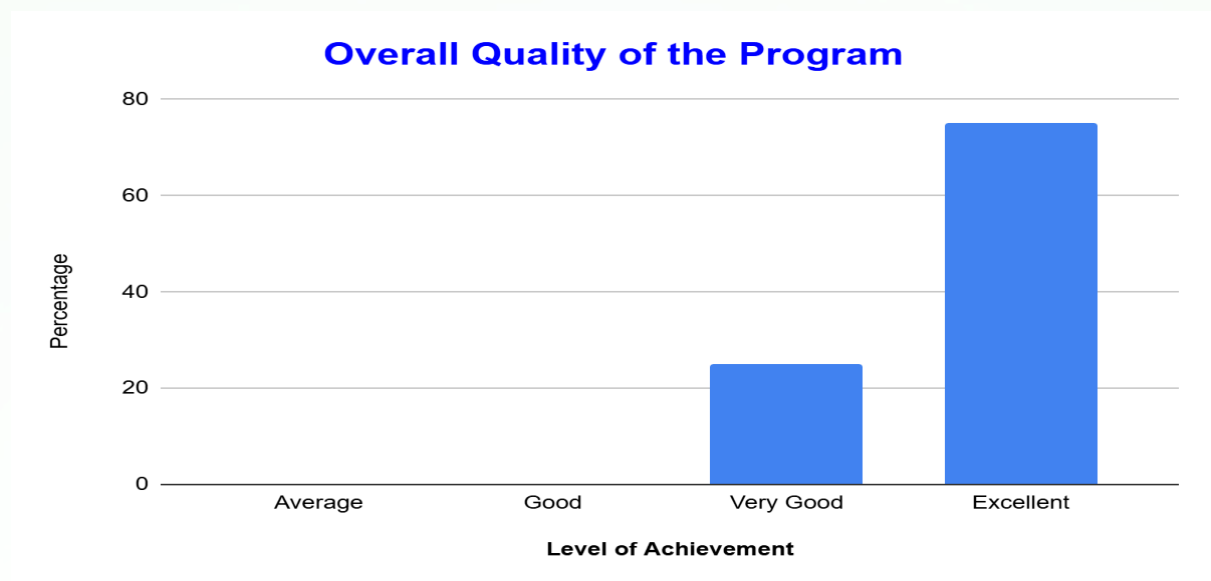
- Comprehensive Understanding of MOOCs: Participants gained a thorough understanding of the MOOC development process, including proposal writing, instructional design, and content creation aligned with learner needs.
- Familiarity with National Guidelines: Participants learned to design MOOCs in compliance with SWAYAM guidelines and the National Education Policy (NEP) 2020.
- Enhanced AI Proficiency: Faculty members became proficient in using generative AI tools such as ChatGPT, Gemini, Copilot, and AI-based video creation platforms to support content design and delivery.
- Practical Prompt Engineering Skills: Participants developed skills in crafting effective AI prompts to generate high-quality and pedagogically sound educational content.
- Hands-on OER Integration: Participants learned to identify, curate, and integrate Open Educational Resources (OER) into MOOCs while understanding licensing, copyright, and intellectual property rights.
- Cybersecurity and Data Privacy Awareness: Participants were sensitized to online threats like data breaches, identity theft, and ethical concerns in AI usage, fostering responsible, secure MOOC creation.
- Instructional Design Mastery: Faculty applied the ADDIE model for systematic and learner-centered MOOC design, covering analysis, design, development, implementation, and evaluation.
- Video Content Production Skills: Participants gained practical knowledge in scriptwriting, storyboarding, recording, editing, and producing professional-quality videos for MOOCs.
- Storyboard and Visual Narrative Expertise: Participants learned to translate scripts into visual storyboards, enhancing clarity, continuity, and engagement in video-based learning.
- Podcasting and Audio Content Creation: Faculty acquired skills to design, script, and produce interactive educational podcasts, including multilingual content with background music integration.
- Use of Immersive Technologies (AR/VR): Participants experienced augmented and virtual reality applications, understanding their potential for creating engaging, immersive learning experiences.
- AI-Powered Adaptive Assessment: Participants explored online assessment tools like Blooket, Questionwell, and Lumi, learning to design adaptive, interactive assessments for MOOCs.

- **Interactive Learning Experience Design:** Faculty developed activities, quizzes, simulations, and interactive content using AI and LMS tools to enhance learner engagement.
- **LMS Integration and Management:** Participants learned to structure courses, upload multimedia content, manage learners, create assessments, and use discussion forums within platforms like Moodle.
- **Multilingual and Inclusive Content Development:** Participants created localized content (e.g., Gujarati language), promoting accessibility and inclusion in online education.
- **AI-Enhanced Presentation and Visualization Skills:** Participants learned to use tools like Curipod, Gamma, Canva, and Napkin to design interactive presentations, graphics, and learning aids.
- **Collaborative Learning and Peer Feedback:** Faculty engaged in peer review exercises, receiving and providing feedback to refine their MOOC designs and content.
- **Critical Awareness of Ethical and Legal Considerations:** Participants understood ethical concerns around AI, copyright, plagiarism, licensing, and responsible technology use.
- **Confidence in MOOC Creation:** Faculty members gained practical experience and confidence in creating complete MOOCs from proposal to multimedia content development and delivery.
- **Networking and Knowledge Sharing:** Participants developed connections across universities, sharing best practices, ideas, and resources for ongoing collaboration in online education.

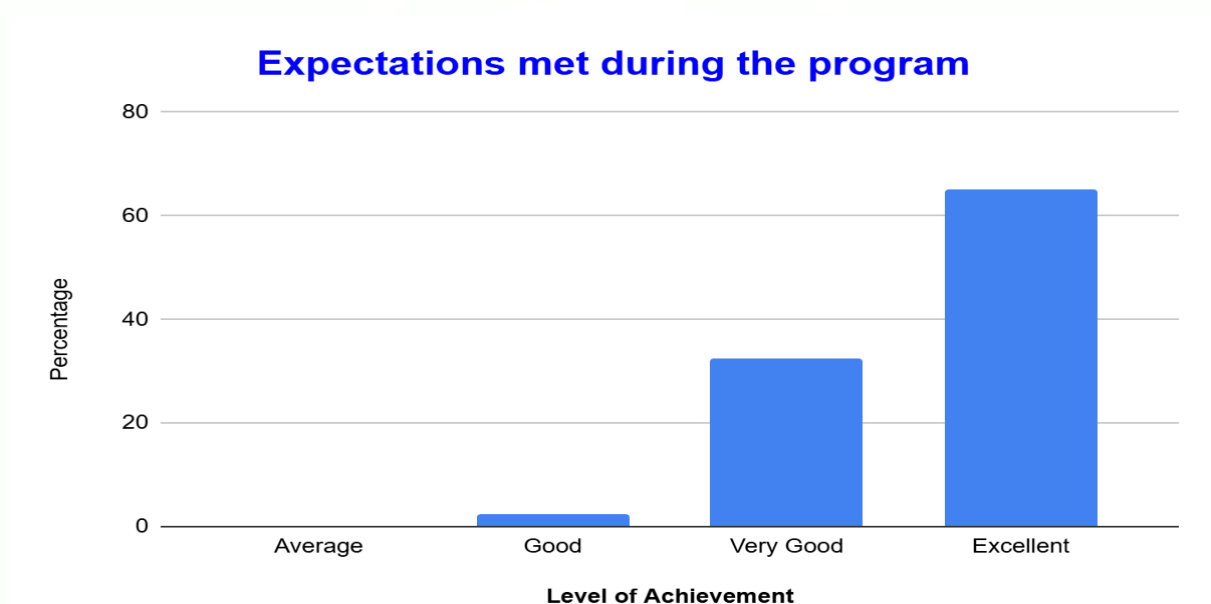
Annexure 1: Feedback Analysis of the participants

Feedback was taken from the participants regarding the quality of the program and various facilities. Along with that, the requirements of participants were also asked for the future programmes. The detailed analysis is discussed below.

1. Regarding the Overall quality of the programme, the participants have praised the programme.



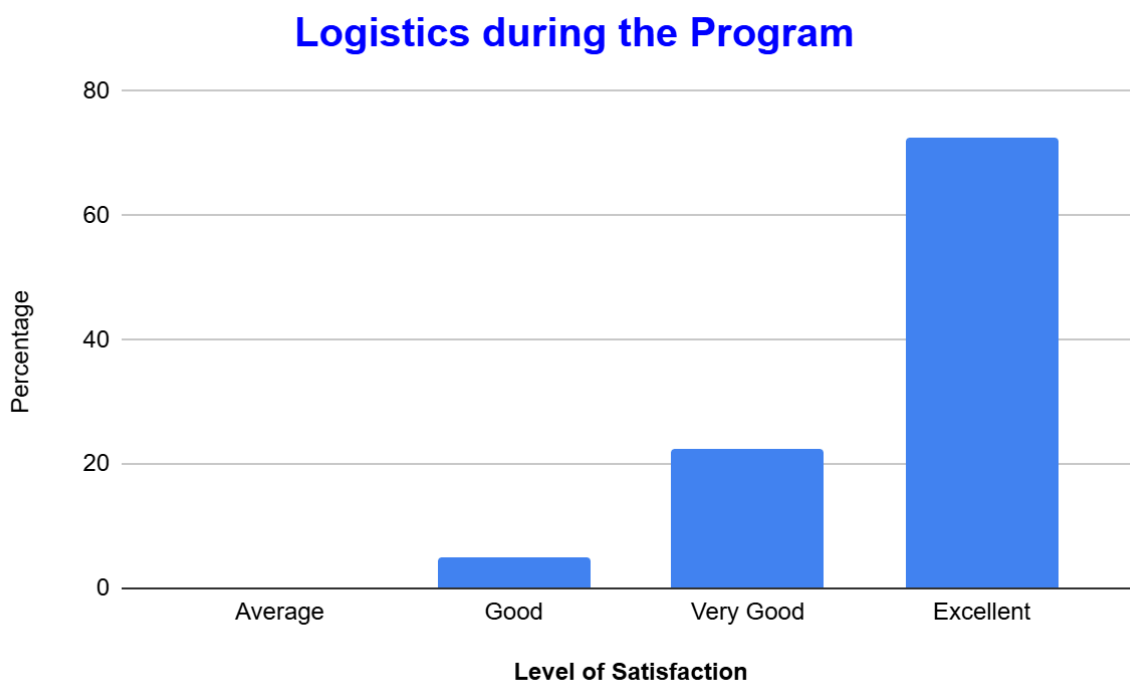
2. It was also asked whether the expectations of the participants have been achieved or not through this PDP and maximum participants have rated that it was achieved.



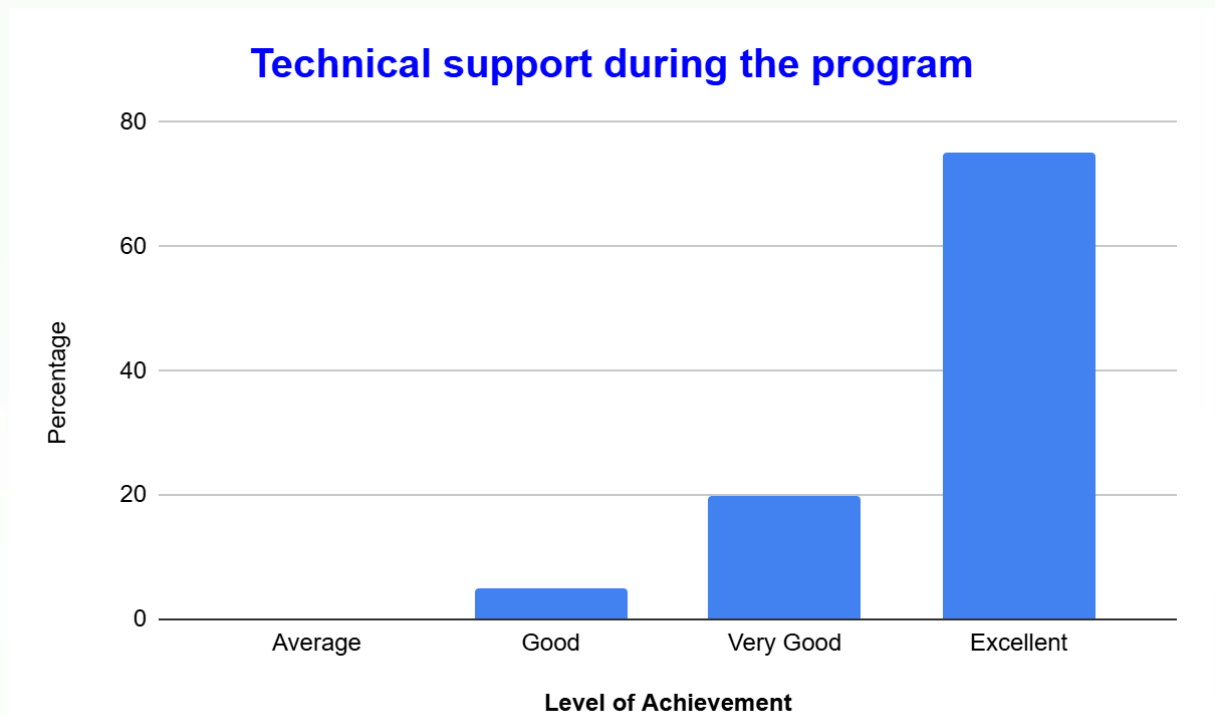
3. The support from the Organizers and Resource persons was provided during the PDP and maximum participants have appreciated the support received.



4. Feedback regarding the logistics and food arrangements was also received from the participants and almost all have appreciated the arrangements provided during the program.



5. Feedback regarding the technical support during the program was also received from the participants and almost all have appreciated the support provided by the technical team during the program.



6. Topics of PDP which participants expect to cover in more details were:

- Video creation and editing
- Moodle
- MOOCs proposal
- Animation
- Prompt engineering
- Recording and editing

7. Some of the suggestions received for improving the program in future were:

- If the participants get the list of all the websites and apps prior to getting the first stage familiarity, the practical sessions can go smoother.
- The recording of video lectures which was done on day 6 should have been done on day 2 actually and every day at least 5-6 video lectures recorded and then a subsequent team member of his be brought in to give feedback on what has been created.
- Technology tools of creation of video lectures for MOOC should be done live and uploaded on a portal for participants.
- Instead of covering many tools, only one or two tools for each area can be covered with giving more time on it

- If we omit few theoretical sessions and add some technical session then at the end of the program , participants may be able to create a small one credit MOOC course with all features.
- Program can be of two or More week time to do hands on practice for all the tools to learn and practice.
- Start with moodle, for AI tools, always provide instructions beforehand in a way that, at the end of session you tell participants about which tool we will be using next time, what it can do etc. In next lecture talk about if they could not utilise it, this way you won't have to wait till they log in to the app, you don't have to repeat what option to look for, etc.
- Don't make faculties use AI for script ideas, it will actually kill the creativity. One should have their ideas then AI should improve those. Writing a script with machine cannot match what Human Intelligence can do.
- The PDP should be tailored separately for IT and non-IT participants to better address their distinct learning needs and backgrounds.

8. Suggestions were received regarding the topics/areas/themes for future training/workshops

- Video content creation
- Use of AI in teaching and research
- Implementation of Moodle in Education Organization
- All participants of this program should be welcomed for a second program to develop video lectures on their area using at least 5 tools learnt from this workshop and IUCTE could facilitate being the anchor support to develop MOOCs of these faculty by developing collaborations for courses they would like to.
- Qualitative Data Analysis
- Application of Emerging Technology in MOOC Development

9. Participants were also asked how they were going to implement the things learnt during this PDP at their institution

- Would design MOOC courses and integrate the technology we learnt in the classrooms.
- In creating handouts for the students and trying out online assessment methods.
- Planning for new Studio
- In Blended Mode
- We will conduct the same workshop for other teachers
- Create content and online LMS implementation
- Using AI tools in teaching and Research
- By integrating the relevant learnings in day to day teaching learning process and research related work in pre-service teacher education and in-service teacher education.
- I plan to begin my MOOC journey from Jan 2026, where I would create courses that are maybe not the part of the curriculum but are the most direct aspects to be an effective teacher.

Annexure 2: List of Resource Persons and Participants

List of Dignitaries

S. N.	Name	Affiliation
1	Prof. Harshad Patel	Vice-Chancellor, Gujarat Vidyapith, Gujarat
2	Prof. Prem Narayan Singh	Director, Inter University Centre for Teacher education, BHU, Varanasi
3	Prof. Naveen Sheth	Former Vice Chancellor, Gujarat Technical University, Gujarat
4	Dr. Himanshu Patel	Registrar, Gujarat Vidyapith, Ahmedabad, Gujarat
5	Shri Achyutbhai Beraunet	Trustee, Gujarat Vidyapith, Gujarat
6	Dr. Anish Chinubhai Baronet	Chief Technical Officer, Amenex Infotechnologies

List of Resource Persons

S. N.	Name of Resource Person	Affiliation
1	Prof. Asheesh Srivastava	Dean (Academics and Research), IUCTE
2	Prof. J.V. Madhusudan	Professor & Head, Department of Education and Education Technology, School of Social Sciences, University of Hyderabad
3	Prof. Gaurav Singh	Central Institute of Educational Technology (CIET), NCERT, Delhi
4	Dr. Ramesh Sharma	Former Director, IGNOU
5	Dr. Amitosh Dubey	Deputy Director, Electronic Media Production Centre (EMPC), IGNOU, Delhi
6	Dr. Amit Gautam	Deputy Director, UGC-Malaviya Mission Teacher Training Centre (MMTTC) NIEPA, New Delhi
7	Dr. Abhishek Kumar	Scientist E, Information and Library Network Centre

8	Dr. Deepty Gupta	Assistant Professor, IUCTE
9	Dr. Raja Pathak	Assistant Professor, IUCTE

Annexure 3: List of Participants

S.N.	Name	Organisation
1	Dr. Amarendra Pandey	Gujarat Vidyapith
2	Dr. Amisha Shah	Gujarat Vidyapith
3	Avani Mukundray Bhatt	Gujarat Vidyapith
4	Bhavinkumar Ashokkumar Patel	Gujarat Vidyapith
5	Dr. Chhanabhai N Bhinsara	Gujarat Vidyapith
6	Dr. Divyeshkumar D. Bhatt	Gujarat Vidyapith
7	Dr. Haribhai M. Patel	Gujarat Vidyapith
8	Dr. Kamaleshkumar Salunke	Gujarat Vidyapith
9	Dr. Kaushikkumar Ruganathbhai Patel	Gujarat Vidyapith
10	Kshiti Patel	Gujarat Vidyapith
11	Dr. Nitinkumar Dhadhodara	Gujarat Vidyapith
12	Dr. Shetal Barodia	Gujarat Vidyapith
13	Dr. Sheetal Rawat	Gujarat Vidyapith
14	Prof. Sonal Patel	Gujarat Vidyapith
15	Dr. Nilesh Kapadia	Gujarat Vidyapith
16	Dr. Chintankumar Gohel	Gujarat Vidyapith
17	Dr. Naresh Chauhan	Gujarat Vidyapith
18	Dr. Dhiren Bababhai Patel	Gujarat Vidyapith
19	Dr. Motibhai Devu	Gujarat Vidyapith
20	Dr. Prateek Shilpkar	Gujarat Vidyapith
21	Prof. Mahesh Narayan Dixit	Gujarat Vidyapith
22	Dr Ashok Parmar	Gujarat Vidyapith
23	Dr. Kanubhai Vasava	Gujarat Vidyapith
24	Dr. Jyoti D. Lamba	Gujarat Vidyapith
25	Dr. Ajay S Gor	Pramukh Swami Science and H D Patel Arts College, Kadi
26	Dr. Amit Channa	Vivekananda Institute of Professional Studies-TC

27	Dr. Jyoti Rupinkumar	Indian Institute Of Teacher Education
28	Dr. Kirit Vaniya	M. G. Science Institute (Autonomous)
29	Dr. Maunas Thaker	H M Patel Institute of English Training and Research, Vallabh Vidyanagar
30	Prof. Meenakshi Gandhi	Vivekananda Institute Of Professional Studies-Tc, Guru Gobind Singh Indraprastha University
31	Dr. Neha Thaker	Om yog sansthan (baou)
32	Dr. Hirenkumar Bhikhubhai Patel	Vidush Somany Institute Of Technology And Research
33	Prof. Satish P. Pathak	Department of Education(CASE), Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara
34	Dr. Srushti Pathak	Indian Institute of Crafts and Design
35	Dr. Vinod L Desai	Sardar Patel University, Vallabh Vidyanagar
36	Dr. Viral Jadav	Indian Institute of Teacher Education
37	Dr. Rajesh Kumar Sharma	Sheth C N College of Education
38	Dr. Girishkumar Khodabhai Chauhan	L.N.K.College Of Education (CTE), Patan
39	Dr. Sanjay Shah	Kadi Sarva Vishwavidhyalay
40	Dr. Nayana U Dhodi	A. G. Teachers College
41	Dr. Swati Tripathi	Children's Research University
42	Dr. Minalba Jadeja	Children's Research University

Annexure 4: Organizing Team

Patrons

Prof. Prem Narayan Singh

Director
IUCTE, BHU, Varanasi

Dr. Harshad Patel

Vice Chancellor
Gujarat Vidyapith, Ahmadabad,
Gujarat

Program Directors

Prof. Asheesh Shrivastava

Dean
Academic & Research
IUCTE, BHU
Varanasi

Prof. Ajay Parikh

Head/Dean
Faculty of ICT
& SWAYAM Co-ordinator,
Gujarat Vidyapith, Ahmedabad

Prof. Dipoooba Devda

Head/Dean/Director
Faculty of Education(IASE)
Gujarat Vidyapith,
Ahmedabad

Program Convenor

Dr. Raja Pathak

Assistant Professor
IUCTE, BHU
Varanasi

Dr. Deepty Gupta

Assistant Professor
IUCTE, BHU
Varanasi

Prof. Jignesh Patel

Professor
Faculty of Education (IASE)
Gujarat Vidyapith, Ahmedabad

Organising and Support Team

Prof. Sonal Patel

Prof. Chanabhai Bhinsara

Prof. Maheshnarayan

Dixit

Dr. Nitinkumar

Dhadhodara

Dr. Bhartiben Parmar

Dr. Tinkesh Kapadiya

Dr. Ashok Parmar

Dr. Arvindkumar Lewa

Ms. Avni Bhatt

Mr. Champak Panchal

Mr. Dasrath Chauhan

Mr. Neerav Ji

Mr. Mukesh Chauhan

Mr. Tinarav Dave

Mr. Rajdip Sinh Dhamal

Mr. Jayeshkumar Parmar

Ms. Shilpa Nikulsinhariya

Ms. Deepika Patel

Ms. Kshitij Patel

Mr. Laxil bhai

Mr. M.R.

Ramasubramaniam

Mr. Vikas Janu

Mr. Kuldeep Pandey

Mr. Shubham Prajapati

Dr. Anil Kumar Singh

Mr. Brijendra Sarkar

Dr. Vijay Kumar Rai

Ms. Pooja Singh

Ms. Neha Patel

Annexure 5: Glimpses of the Program





Inter University Centre for Teacher Education

Banaras Hindu University
IUCTE Campus, Sundar Bagiya
Nariya-BLW Road, Varanasi - 221005
Uttar Pradesh

Contact No.: 0542-2368823
Email: directoroffice@iucte.ac.in

