

**Avinashilingam Institute for Home Science and Higher Education for Women
Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with 'A++' Grade by NAAC.CGPA 3.65/4, Category I by UGC
Coimbatore-641 043, Tamil Nadu, India**



**Report of the
Fourth Short Term Capacity Building Program
on**

Artificial Intelligence in Education

**Organised
by**

**AIU – Avinashilingam Institute – Academic and
Administrative Development Centre (AIU-AI-AADC)
&
Centre for Machine Learning and Intelligence (CMLI)**

19.06.2023 to 30.06.2023

Mode : Online



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AIU-AI-AADC

Fourth Short-Term Capacity Building Programme on

‘Artificial Intelligence in Education’

19.06.2023 to 30.06.2023 (10 Days) - Online Mode

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AIU-AI-AADC

Report on **Fourth Short Term Capacity Building Programme on**

Artificial Intelligence in Education

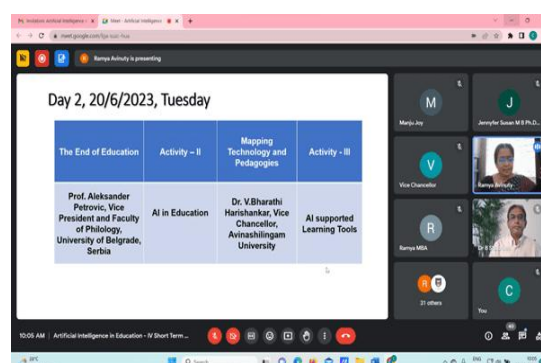
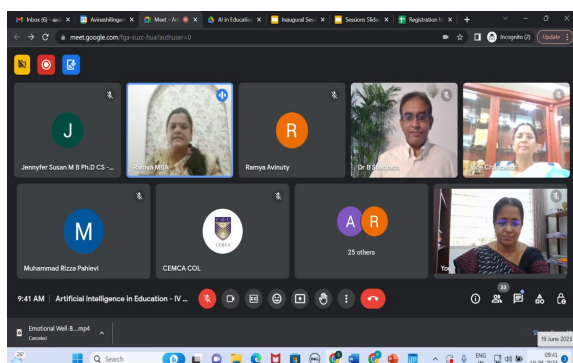
19th June to 30th June 2023

The fourth Short-Term Capacity-Building Programme was organised by AIU-AI-AADC (Association of Indian Universities - Avinashilingam Institute - Academic & Administrative Development Centre) jointly with Centre for Machine Learning and Intelligence (CMLI) on the title '**Artificial Intelligence in Education**' from **19th June to 30th June 2023**. The programme aimed to enhance participants' knowledge and expertise in leveraging AI for educational advancements, fostering collaborative learning, and facilitating innovative teaching methodologies. 45 participants from various higher education institutions (HEIs) including few international participants attended the programme in online mode.

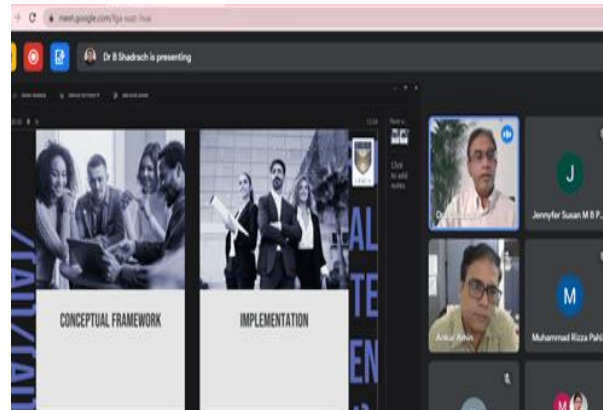
Day 1: 19.06.2023 Session 1

Inauguration

The Nodal Officer of AIU-AI-AADC welcomed the gathering and explained about the objectives and activities of the centre till date. Following the welcome, Dr.P.Subashini, Coordinator of CMLI presented the objectives and conduct of the programme. Further, a brief description of the 10-day programme along with themes and resource persons was presented.



Dr. Bharathi HariShankar, Vice Chancellor of the Institute delivered her presiding remarks, during when she highlighted the significance of AI in teaching-learning process with day-today-examples sand mentioned that AI would provide an immersive experience for the learners. She further emphasised that AI would help to reach a heterogeneous crowd of people across boundaries .



During the Inauguration & Special Address, Dr. Basheerhamad Shadrach, Director of the Commonwealth Education Media Centre for Asia, presented a comprehensive overview of AI's evolution and stages, covering reactive AI, limited memory AI, theory mind AI, self-awareness AI, and general intelligence AI. He discussed the conceptual framework of AI, including rule-based systems, expert systems, neural networks, and genetic algorithms, Foundations of AI, such as machine learning, data mining, and logic probability, were emphasized, with a particular focus on machine learning's ability to allow computers to learn from data and past experiences autonomously.

Major AI paradigms and tools for teaching, learning, and assessment, such as personalization, chatbots, and virtual tutors, were showcased, along with the global growth of AI in markets like India, North America, and China.

The session also highlighted various AI applications and benefits in education, such as personalized learning, task automation, smart content creation, and 24/7 assistance through conversational AI. Dr. Shadrach emphasized that AI has the potential to revolutionize education, providing personalized and engaging learning experiences to prepare students for future employment opportunities, leveraging teaching skills, and nurturing talent and skillsets.

Takes away from the Session:

- ❖ AI could be used to shape the future of education.
- ❖ Ethical considerations and privacy settings to be considered in the deployment of learning paradigms
- ❖ Pros and Cons of deploying AI techniques in educational environment.
- ❖ AI Education helps to increase the investment market and job opportunities of students.

Day 1: 19.06.2023 Session 2

National Education Policy and Technology

Dr. S. P. Thyagarajan, Former Chancellor,
Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.



The session, led by Dr. S. P. Thyagarajan, Former Chancellor of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, focused on the intersection of the National Education Policy (NEP) and technology. The NEP emphasizes the pillars of comprehensive holistic education across all fields, linking education with AI techniques to enhance talents, skills, and employment opportunities. To meet the demands of dynamic technology and industries, educational institutions need to foster industry-relevant research, collaborative learning, and experiential learning.

Technology Enhanced Learning (TEL) plays a crucial role in improving students' learning abilities, encompassing various tools such as computer-assisted learning, mobile apps, digital games, MOOCs, SWAYAM, simulation, VR, and wearable technologies. The session

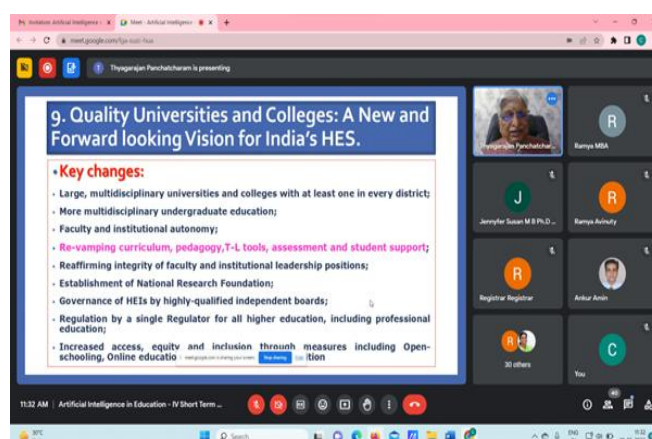
also highlighted key initiatives in online and digital education to ensure equitable access to technology

- 1.Pilot studies on online education
- 2.Digital infrastructure
- 3.Online teaching platform and tools
- 4.Content creation digital repository and tools
- 5.Addressing the digital divide
- 6.Laying down standards
- 7.Blended models of learning
- 8.Training and incentives for teachers
- 9.Online assessment and examination

The importance of multidisciplinary learning in higher education was emphasized, along with the need to integrate technology into the curriculum and pedagogy. The session introduced the concept of the National Educational Alliance for Technology (NEAT), which aims to use Artificial Intelligence to personalize learning experiences based on learners' requirements. PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development) was presented as a valuable tool for evaluating students' overall development.

Take away from the Session:

- NEP & Technology Integration
- Addressing Challenges in TEL & Perception
- Research Opportunities: AI, AR, Robotics in Clinical Domain
- Online Courses, Workshops, Internships for AI Implementation
- Bridging Technological Gaps in Higher Education.



Day 1: 19.06.2023 Session 3

Activity I: Pre-Assessment

Questions Responses Settings Total points: 25

Pre-assessment of AI in Education

Activity - I

Email *

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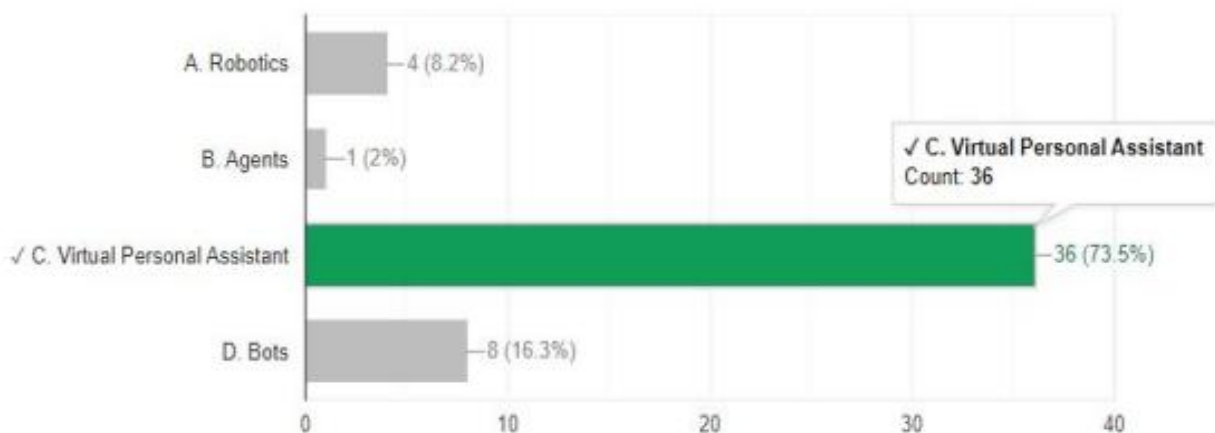
The Participants took up pre-assessment which consisted of 25 Multiple-Choice Questions in the area of Artificial Intelligence. The responses were collected through Google Forms and this was carried out to have an understanding about participants prior understanding to the topics covered in the program.

Sample Question asked in the Pre-Assessment:

20. _____ is an application that understands natural language voice commands and completes tasks for the user like dictation, reading text or email messages aloud, scheduling, making calls and setting reminders.

 Copy

36 / 49 correct responses

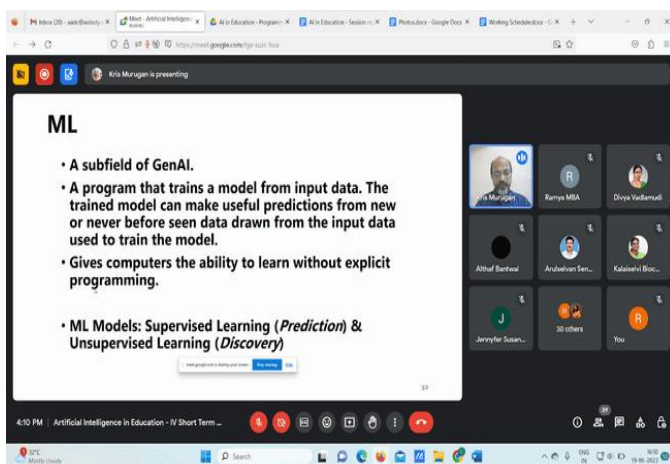


Day 1: 19.06.2023 Session 4

Introduction to AI in Education

Dr. K. Murugan, Former Registrar, Tamil Nadu Open University.

In this session led by Dr. K. Murugan, the implementation of AI techniques in e-learning materials was discussed. AI applications such as ChatGPT, Text Generation, Content Curation, and Recommendation, and content editing enhance personalized learning experiences, natural language processing, and resource support. Intelligent tutoring systems focus on adaptive learning, data-driven analytics, and curriculum design. Three types of machine learning algorithms (supervised, unsupervised, and reinforcement learning) are used to build robust AI-powered systems. Challenges include lack of training data, data inaccuracies, and size constraints.



AI in education should concentrate on curriculum design, experiential learning, and automating administrative tasks. Challenges in providing equitable education involve smart technology implementation, investment, and training for teachers and students. Real-time implementation of AI requires significant changes in curriculum, pedagogy, and assessment methods. ChatGPT, an emerging AI tool developed by OpenAI, offers benefits such as personalized learning, instant feedback, and student engagement. However, challenges like privacy, accuracy, bias, technology dependence, and implementation costs should be addressed.

Take away from the Session:

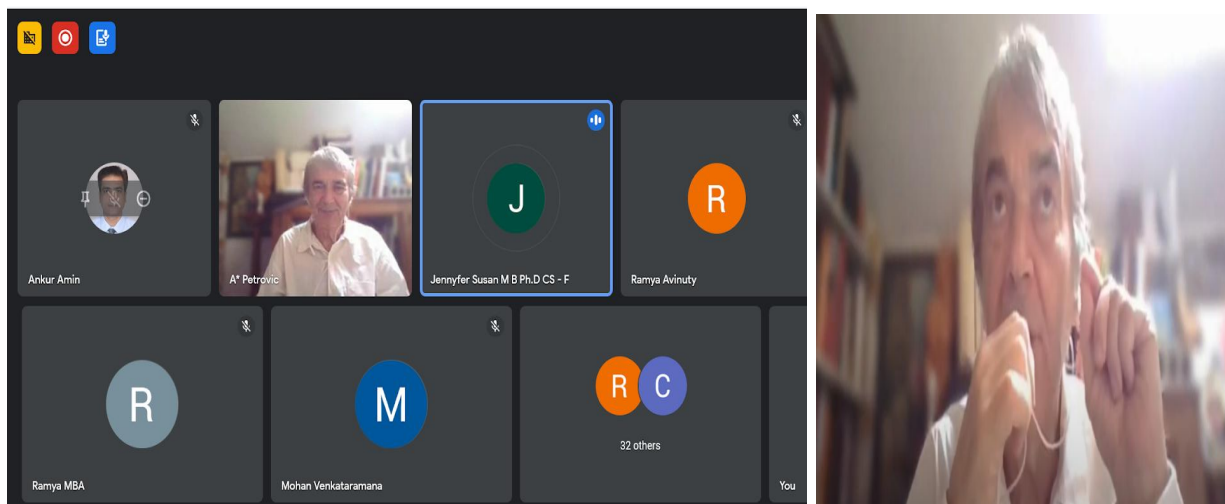
- AI Components for Education
- Machine Learning for Personalized Systems
- Intelligent Tutoring Systems

Day 2: 20.06.2023 Session 1

The End of Education

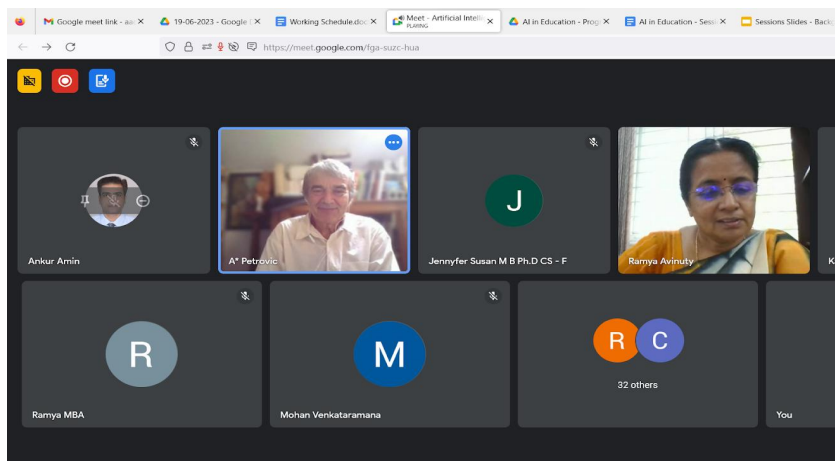
Prof. Aleksander Petrovic
Vice President and Faculty of Philology
University of Belgrade, Serbia

Prof. Aleksander Petrovic emphasised that the primary goal of implementing AI in education is to transform students' critical and design thinking skills and encourage industry-relevant research. AI is seen as a powerful tool to bridge the gap between theoretical and practical learning. However, the speaker warned against the false promises and potential biases of AI, emphasizing the need for education to be centered on justice and truth. The misuse of technology and the importance of understanding the pros and cons of AI in real-world situations were also highlighted.



The session delved into the interrelationship between people's perception, religion, belief, and education, touching upon the emergence of a community in Germany believing in AI-priests for solving various problems. The discussion further explored the widespread exploitation of AI in various domains, including clinical care, business, astronomy, cultural heritage, and fundamental sciences like information science, mathematics, medical science, materials science, geoscience, gaming, entertainment, life science, physics, and chemistry.

Overall, the session highlighted the potential and challenges of AI in education, urging a balanced and thoughtful approach to harnessing its benefits while being cautious about its limitations and ethical implications.



In his conclusion, Prof. Aleksander Petrovic emphasized the integration of social, environmental, and cultural aspects in the development of AI-based learning systems. This approach ensures ethical and inclusive education, reaching all learners regardless of background, while also minimizing environmental impact. By respecting diverse cultural values, AI-driven education becomes more relevant and meaningful to students. This holistic consideration enables AI to be a powerful tool for positive societal transformation, fostering critical thinking and responsible global citizenship in the learning process.

Take away from the Session:

- Human Development in Education
- Integrating Technology and Real-Life Practices
- History and AI Interrelationship
- Impacts and Ethical Considerations

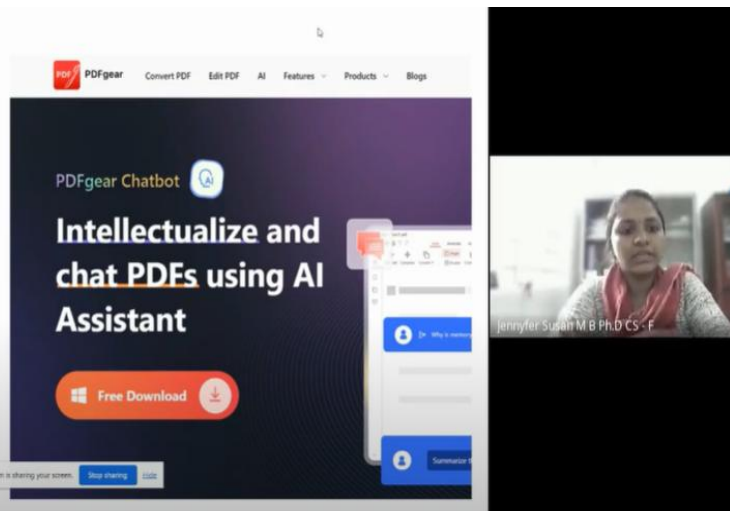
Day 2: 20.06.2023 Session 2

Activity I : AI supported Learning Environment

The activity was co-ordinated by Dr. P. Subashini, Programme Co-ordinator and Ms. Jennyfer Susan, Ph.D. Research Scholar in the Department of Computer Science. Various AI-supported tools were demonstrated during the session. PDFGear Chatbot is an open-source tool that summarizes content from uploaded PDF files, making it easier to extract information from large documents such as books, research papers, and legal contracts. It offers features like PDF conversion, merging, annotation, editing, splitting, OCR, reading, and compression, providing users with an enhanced PDF experience.

PDF Gear Chatbot

- PDFgear Chatbot is a ground-breaking feature from the **free PDF editor software** PDFgear Desktop that allows users to summarize text and information in large PDF documents in simple words and sentences. Powered by the GPT-3.5 model, **PDFgear** works both as an AI chatbot and PDF summarizer.
- Once the PDF is imported, the PDFgear chatbot will automatically generate the suggested questions, and you can use prompts like "summarize the PDF" to **get the summary of the article** in seconds.



ChatGPT, another AI tool showcased, uses natural language processing to create human-like conversational dialogue. It can answer questions and generate diverse written content like articles, social media posts, essays, code, and emails. DALL-E and DALL-E 2 are deep learning models developed by OpenAI to generate digital images from natural language descriptions. They can produce realistic images and art based on textual prompts.

Additionally, Tome, an OpenAI tool, was discussed for creating presentation slides. The session highlighted the power of AI in enhancing various aspects of the learning environment, from PDF document handling to generating realistic images and streamlining presentations.

These AI-supported tools offer immense potential to transform the learning experience, providing efficient content summarization, natural language-based interaction, and creative image generation. As AI continues to advance, it is expected to revolutionize various educational practices, making learning more engaging and effective for learners.

Take away from the Session:

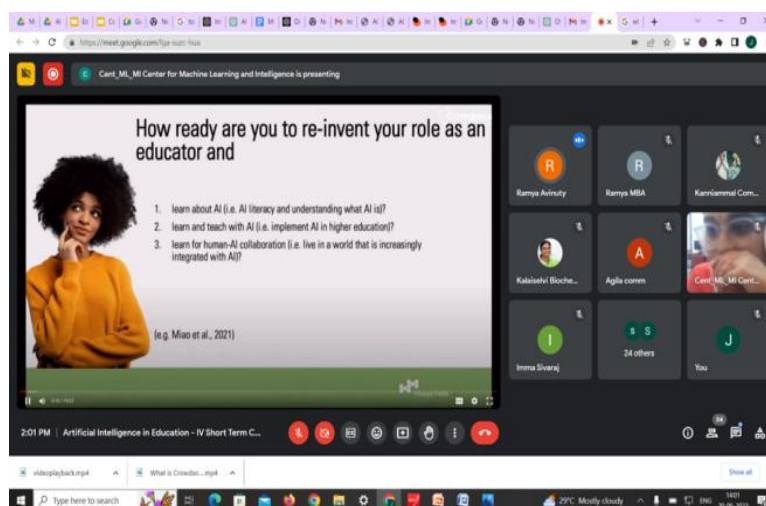
- AI Tools for Teaching-Learning
- ChatGPT: Empowering Non-Technical Users
- Interactive Learning with AI Tools
- Effective Learning Platforms through Tool-Course Content Alignment

Day 2 20.06.2023, Session 3

Activity II: An Overview of AI in Education

The session was handled by Dr. T.T. Dhivyaprabha, a Research Associate at DST-CURIE-AI, Avinashilingam Institute, Coimbatore. In this session, Dr. Dhivyaprabha presented an overview of AI's applications in education. The applications of AI in education are diverse and impactful. Personalized learning delivers customized learning materials based on individual interests, ensuring students receive relevant content. Automated grading streamlines the assessment process by automatically grading assignments and providing timely feedback to students. ChatGPT serves as a chatbox to answer student queries and solve problems, relieving teachers of some academic responsibilities.

Intelligent Tutoring Systems offer additional learning support to students, while Learning Analytics identifies trends in personalized learning and fruitful outcomes. Adaptive Assessments provide support and appropriate assessment tasks based on each student's intellectual capability. AI assists in content creation helping teachers and students create curated learning materials, emphasizing essential points.



AI not only enhances learning experiences but also supports pedagogical strategies by promoting creativity, critical thinking, and problem-solving skills. Dr. Dhivyaprabha presented several case studies from the University of Sydney, showcasing the successful deployment of AI in various aspects. These case studies included Integrity-Bot, STACI, AI Invoice Processor, Fin-Bot 2.0, Service Desk Email Triage, Corona-Bot, T-Bot, University of Sydney Degree Planner, and Open Feedback Channel.

Take away from the Session:

- Personalized Support
- Teacher Assistance
- Real-time Case Studies
- Engaging and Effective Learning

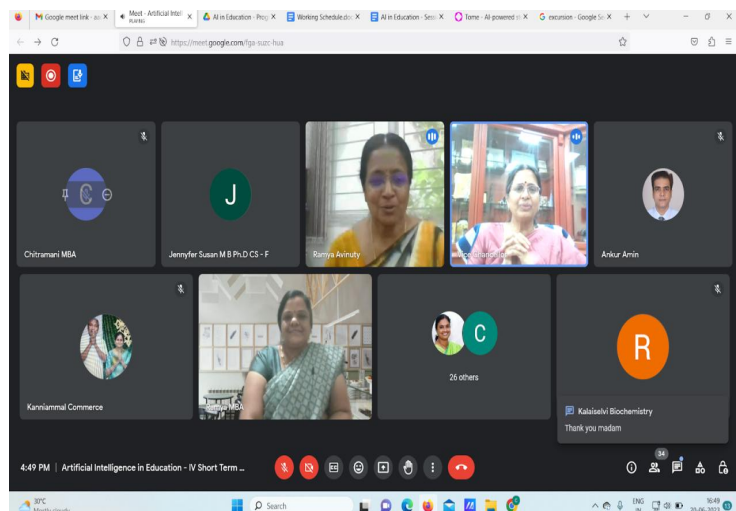
Day 2 20.06.2023 Session 4

Mapping Technology and Pedagogies

Dr. V. Bharathi Harishankar
Vice Chancellor,

Avinashilingam Institute for Home Science and Higher Education for Women

Dr. V. Bharathi Harishankar, Vice Chancellor of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, conducted a session on the application of technology in educational environments. The session highlighted how technology facilitates easy access to resources anytime and anywhere, supporting teachers in course preparation, enabling immersive experiences for learners, and automating various tasks. Customized learning platforms and simulation environments help reach a diverse audience, making learning more inclusive. AI brings real benefits to teachers, learners, and institutions, with AI-supported tools aiding in learning analytics.



The implementation of AI in education was discussed from various perspectives. Customized learning platforms become essential to disseminate knowledge and skills to a diverse audience. The adaptability of technology training is crucial for both teachers and learners to transition to e-learning effectively. However, the challenges of cost and infrastructure need to be addressed to ensure access for the masses. Moreover, potential threats of AI techniques should be considered.

AI plays a pivotal role in evolving learning paradigms, making learning contents easily available, and promoting collaboration by sharing resources. The session emphasized customization and collaboration as vital aspects of the teaching-learning process. It also advocated for the inclusion of predictive analytics and evaluation in the educational context.

AI tools are employed to create interactive e-learning materials, aligning with different pedagogical paradigms and considering learners' abilities, available infrastructure, and teacher preferences. However, it was acknowledged that AI might not be universally suitable for all communities, necessitating diverse scenarios and methodologies for engaging learners on learning platforms.

The session also touched upon Thomas Babington Macaulay's design of the Indian education system and highlighted how AI can enhance user experiential learning, especially in the face of challenges arising from large classroom sizes and varying student needs. Immersive technology, gaming, and wearable devices were identified as powerful tools to engage students actively in the learning process. However, it was stressed that situated learning still requires real-time interaction and settings.

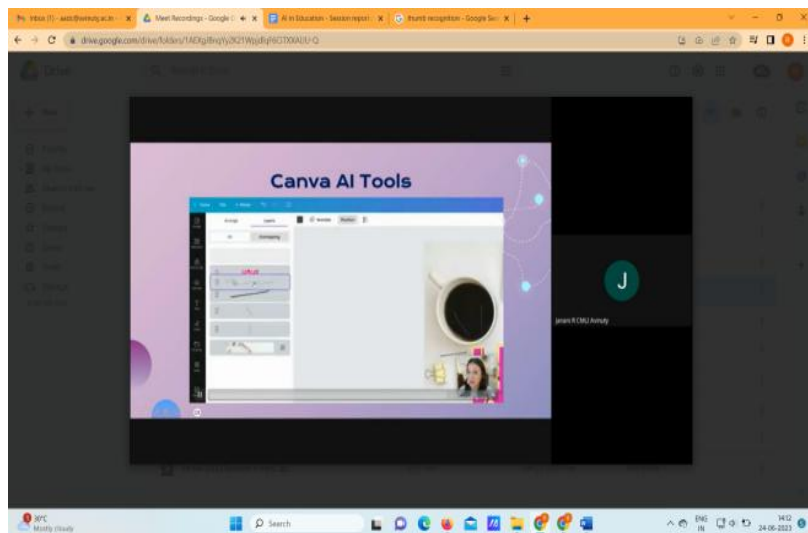
Take away from the Session:

- Correlation of Objectives and AI
- Enhanced Collaboration and Engagement
- Stakeholder Analysis for Implementation
- AI-enabled Content Delivery

Day 3: 21.06.2023, Session 1

Activity III: Demonstration on CANVA AI Tools

Dr. Janani, a Research Associate from DST-CURIE-AI at the Centre for Machine Learning and Intelligence, Avinashilingam Institute, Coimbatore, delivered a session on Canva, a powerful design tool. Canva offers a wide array of features, including text effects, shadows, frames, and various graphics, enabling users to implement their ideas on the canvas effortlessly. The Canva toolkit empowers users to create stunning designs quickly and efficiently, providing a fast-track to design process.



The platform allows for seamless video editing with a video cutter and trimmer, enabling users to create compelling story timelines for their projects. Additionally, Canva's photo enhancer tool fixes dark, blurry, and oversaturated images, ensuring they look their best for easy sharing on social media.

Canva's extensive range of elements includes lines, shapes, graphics, tables, text, audio, background options, emojis, charts, drawings, graphs, photos, and uploads, offering unparalleled versatility for design projects.

The Canva button houses various tools like image cropping, transparency adjustments, filters, and more, making design customization a breeze. Users can access previous designs and creations from the folders option, streamlining the design process.

The platform further supports the addition of background music to videos with a selection of audio categories like pop, ambient, and happy. Users can also take advantage of filters for audio, such as vocals, instrumentals, and effects. Canva simplifies the creation of captivating stories with beautifully-arched texts and allows the conversion of files to PDFs without compromising quality. Furthermore, the online PDF converter enables users to convert DOCX, PPTX, JPG files, and more into PDFs for easy sharing and download.

In conclusion, Dr. Janani's session highlighted the wealth of features and tools Canva offers, making it an indispensable resource for individuals looking to create professional and visually appealing designs with ease.

Take away from the Session:

- Interactive presentations, assignments and posters,
- Exposure to design tools,
- Content creation, social media posts, presentations, posters, videos & logos.

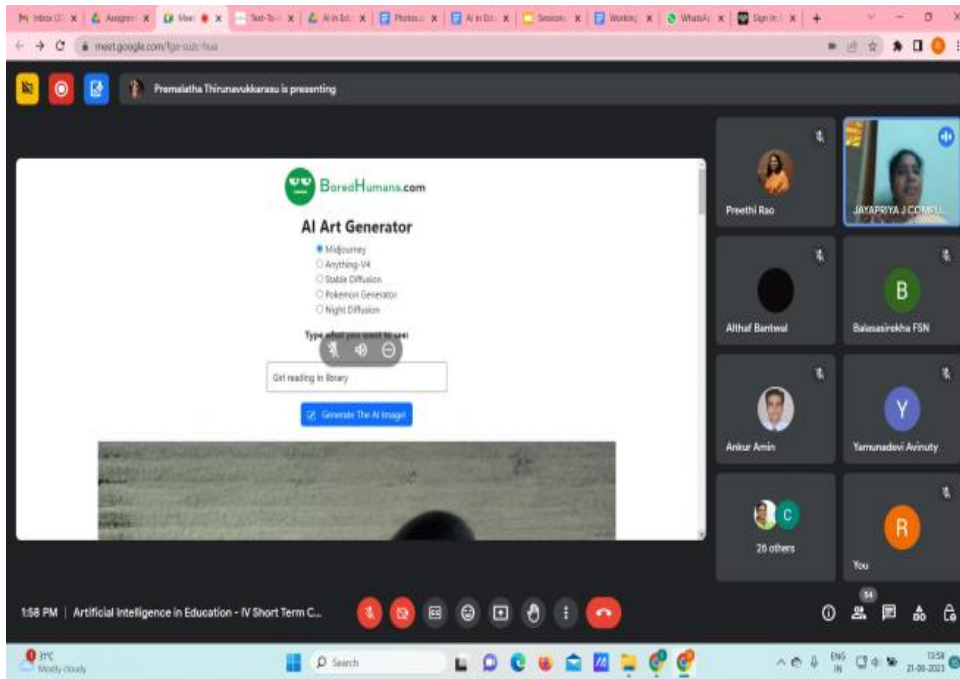
Day 3, 21.06.2023, Session 2

AI unleashed: Exploring the Foundations and Applications

Dr. J. Jayapriya, Christ University , Bengaluru

Dr. J. Jayapriya, from Christ University, Bengaluru, delivered an enlightening session on Artificial Intelligence (AI) with a specific focus on its application in computational systems, exemplified through chess. The session underscored how AI algorithms in chess emulate human-like gameplay by meticulously considering all possible moves and their respective probabilities.

The presentation covered fundamental aspects of AI, commencing with an elucidation of its definition and the distinction between Narrow AI, specializing in specific tasks, and General AI, aspiring to mimic human-level intelligence and problem-solving abilities.



Various AI techniques and approaches, notably Machine Learning and Deep Learning, were expounded upon, elucidating how these methodologies enable AI systems to effectively process data, identify patterns, and continuously enhance performance through learning from data. Practical applications of AI were showcased, including voice assistants, image recognition, recommendation algorithms, and autonomous vehicles, unveiling its tangible advantages in data analysis and decision-making processes.

The session culminated with an insightful glimpse into the future of AI, accentuating its potential growth and profound impact across diverse industries. Participants actively engaged in a demonstration where they experienced an online chess gaming system pitted against an AI bot, thereby gaining invaluable insights into the realm of AI and comprehending the profound significance of AI algorithms in contemporary computing systems, skillfully demonstrated through the game of chess.

Take away from the Session:

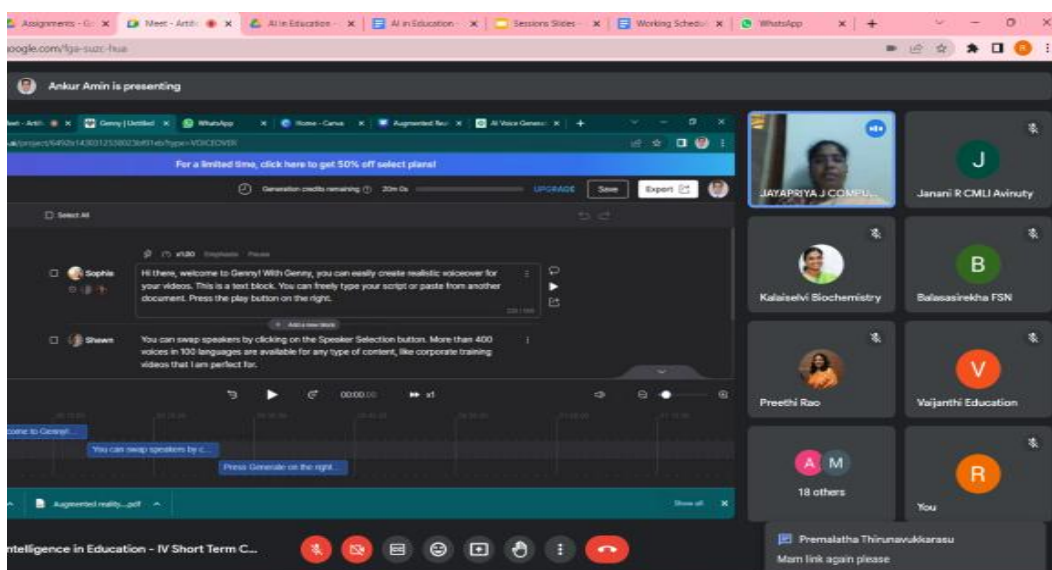
- Wide applications of AI
- Real-world intelligent systems
- AI in education
- Future of AI: research, technology, ethics, societal impact

Day 3: 21.06.2023, Session 3

Pioneering Tools in AI

Dr. J. Jayapriya, Christ University , Bengaluru

Dr. J. Jayapriya showcased diverse open-source AI tools for education, enabling personalized and interactive learning experiences. These tools foster innovation and critical thinking, empowering educators to harness AI's potential for educational advancement.



The following are the list of tools discussed:

- ✓ **Slides preparation Tool:** <https://slidesgo.com/?norember=zvv3UUmV9KEAsCEy>

This versatile tool offers a rich selection of templates and relevant content, empowering users to craft engaging and interactive presentations effortlessly.

- ✓ **Talent assessment tool:** <https://mettl.com/>

This tool facilitates student performance evaluation in virtual classrooms, enabling monitoring during online tests for a comprehensive learning experience.

- ✓ **Text summarization tool:** <https://quillbot.com/summarize>

This efficient tool provides concise notes and comprehensive summarizations of entire contents, streamlining information processing and enhancing productivity.

- ✓ **Machine Learning datasets:** <https://boredhumans.com/mldatasets.php>

This invaluable tool allows users to access ground truth and benchmark datasets from diverse data repositories, encompassing multidisciplinary fields for research and analysis.

- ✓ **Research paper generation tool:** https://boredhumans.com/research_papers.php

This sophisticated tool facilitates the creation of precise summaries and abstracts of content, utilizing advanced AI to automatically generate research papers akin to those found on arXiv.org and academic journals.

- ✓ **Paraphrasing AI tool:** <https://quillbot.com/>

This comprehensive tool offers grammar and plagiarism checking, paragraph analysis, summarization, citation generation, and translation. Leveraging advanced AI, it efficiently aids millions of students and professionals in rewriting content.

- ✓ **Research Paper downloading tool:** <https://www.connectedpapers.com/>

This tool provides paper abstracts, relevant papers, citations, and URLs, simplifying the process of selecting pertinent research based on the given title.

Take away from the Session:

- Broad exploration of AI tools in education
- Effective tool selection for user needs
- AI tools for efficient research
- Integrating AI with user ideas for intelligent systems

Day 3: 21.06.2023, Session 4

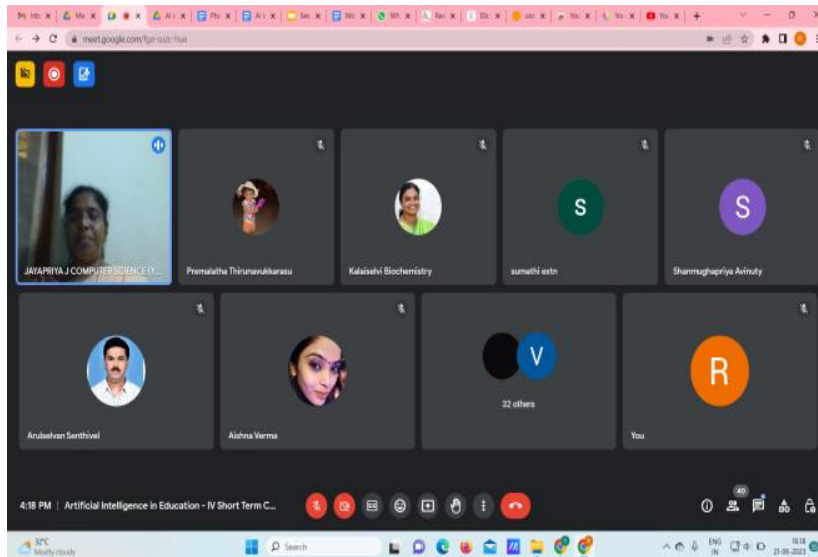
AI for Academic Research

Dr. J. Jayapriya, Christ University, Bengaluru

In this session, Dr. J. Jayapriya from Christ University demonstrated various cutting-edge tools. Participants actively engaged in interesting activities exploring these tools. The session emphasized the significance of these tools in a professional context, offering valuable insights for their practical applications.

❖ **Personalised digital platform:** <https://www.researchrabbit.ai/>

This advanced tool facilitates the seamless download of relevant research papers, offering additional features like paper collections, similar works, references, and citations. With the capability to add papers to collections, ResearchRabbit intelligently learns user preferences to enhance its recommendations.



❖ **Research paper searching tool:** <https://elicit.org/>

Elicit streamlines research workflows, finding relevant papers without exact keywords, generating summaries, and supporting brainstorming, summarization, and text classification.

❖ **unriddle.ai:** <https://app.unriddle.ai/new>

Unriddle is a research copilot simplifying complex topics, summarizing content, and providing instant answers. It studies, bookmarks, and explores to quickly deliver relevant information.

❖ **chat pdf:** <https://www.chatpdf.com/>

ChatPDF, a powerful tool, provides concise summaries for textbooks, handouts, presentations, and YouTube videos, while ensuring secure and confidential storage of data.

❖ **Glasp:** <https://glasp.co/youtube-summary>

Glasp, an innovative social web highlighter, streamlines highlighting and organizing quotes from the web. It enables seamless access to like-minded individuals' insights, fostering collaboration and enhancing the learning experience professionally.

Take away from the Session:

- Exploring open-source AI tools
- AI tools for effective academic tasks
- AI in education for personalized learning and improved outcomes
- Harnessing collective intelligence for cutting-edge solutions.

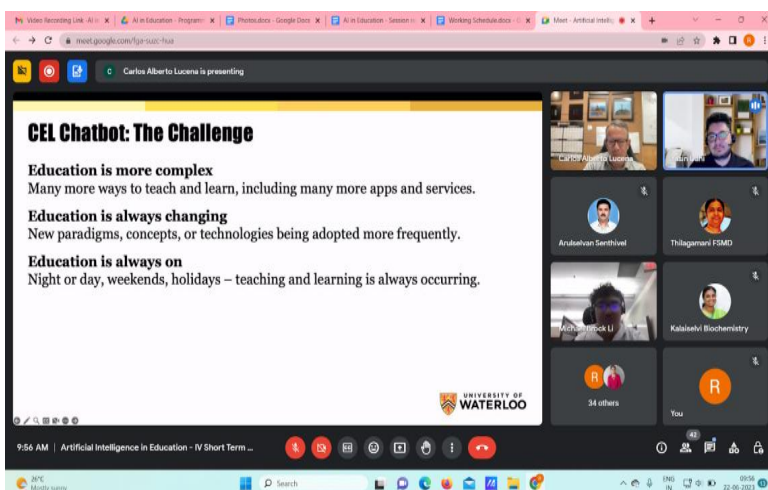
Day 4: 22.06.2023 Session 1

GPT Powered ChatBot - support for Instructors and Students

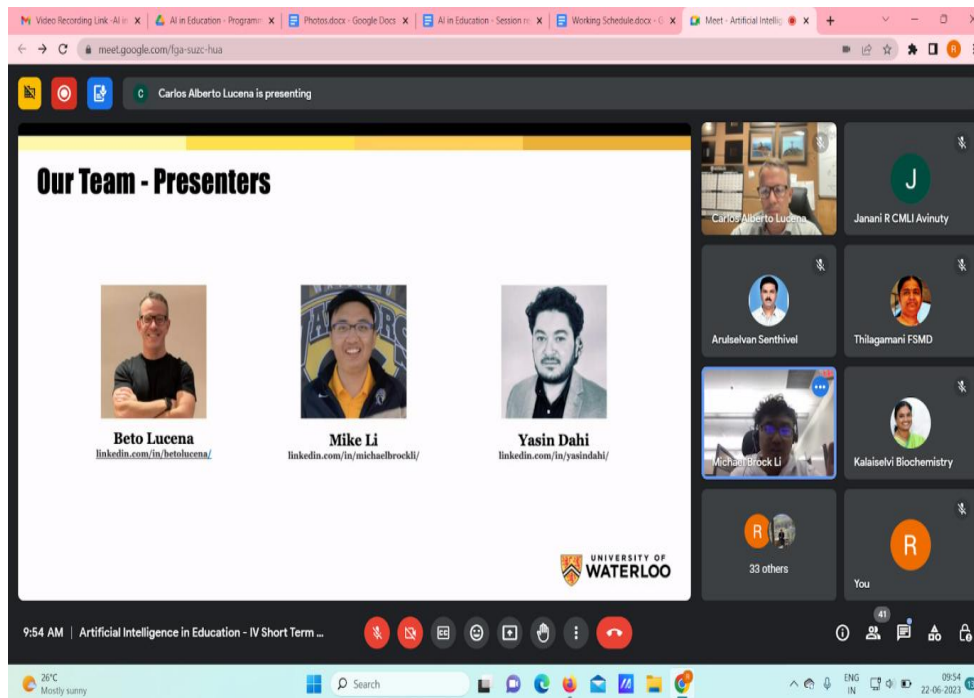
Dr. Beto Lucena & Team, Centre for Extended Learning, University of Waterloo

Dr. Beto Lucena and his team from the Centre for Extended Learning at the University of Waterloo discussed GPT-powered ChatBot designed to provide comprehensive support for instructors and students in various aspects of education.

ChatBot offers assistance in answering questions, providing explanations, and offering guidance on a wide range of topics. For instructors, the ChatBot proved to be a valuable resource in developing course materials such as lecture notes, assignments, and quizzes. Additionally, it offered insights on evaluating student work and providing effective grading rubrics and feedback on assignments and projects.



The session highlighted how the ChatBot caters to students' individual needs by offering personalized recommendations based on their academic interests. These recommendations included further study materials, research papers, and relevant resources to enhance their learning journey.



Moreover, the ChatBot demonstrated its ability to provide homework and project support, guiding students through problem-solving steps and offering suggestions for successful project implementation. It also imparted valuable study strategies and time management tips to optimize students' learning experience. Language support was a notable feature, as the ChatBot assisted non-native English speakers in improving their language skills, offering grammar explanations, and providing language usage suggestions to enhance academic communication.

Participants learned how the ChatBot becomes an invaluable asset during exam preparation, offering techniques to excel in exams and effectively manage exam-related anxiety and stress. However, it was emphasized that while the ChatBot can provide substantial support and information, its access to real-time data or institution-specific knowledge is limited. In such cases, participants were encouraged to consult instructors or subject matter experts within their educational institutions for more tailored and precise guidance.

Overall, the session proved insightful and showcased the GPT-powered ChatBot's potential in fostering enriched learning experiences for both instructors and students, promoting academic success within the educational community.

Take away from the Session:

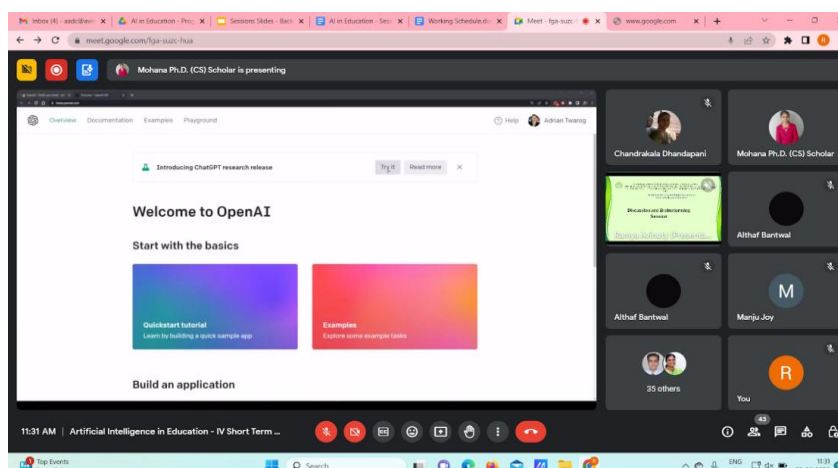
- Advanced chatbot
- Natural language processing
- Machine learning
- Query resolution
- Feedback provision
- Study skills enhancement
- Increased motivation
- Enhanced engagement

Day 4: 22.06.2023, Session 2

Activity - IV: Demonstration of ChatGPT

Dr. P. Subashini, Programme Co-ordinator and Ms. Mohana, Ph.D. Research Scholar, demonstrated the practical applications of ChatGPT from both teacher and learner perspectives. The demonstration showcased how ChatGPT can be a valuable tool in various aspects of education, benefitting both students and educators.

The session showcased ChatGPT's capabilities in curriculum design and lesson plan preparation, streamlining the process for teachers. The chatbot's proficiency in vocabulary, resource provision, and grammar checking further proved to be invaluable in enhancing teaching materials and comprehension. The presentation covered how ChatGPT can be utilized in various teaching purposes, including worksheets, reading checks, assignments, close tests, rubrics, activities, posters, questions, prompts, and IEP goals. Participants learned how the chatbot can also facilitate quizzes and templates creation, making teaching and assessment more efficient.



The session delved into the innovative application of ChatGPT in creating engaging and visually appealing presentations. Using AI, ChatGPT in combination with the Tome app can automatically generate content and themes for presentations, while also providing features like image descriptions, color selection, video integration, and more. The benefits of using ChatGPT in education were highlighted, emphasizing its potential in personalized learning, instant feedback and support, accessibility, and inclusion.

Participants discovered how the chatbot can serve as a valuable assistant for teachers, offering lesson planning ideas, access to educational materials, and assisting in various administrative tasks. Additionally, ChatGPT's significance in language learning, facilitating collaborative experiences, and supporting teacher professional development through continuous education was underscored.

Take away from the Session:

- Personalized Assistance
- On-demand Support
- Integration with Online Learning Platforms
- Effective Education
- Classroom Tools

Day 4: 22.06.2023, Session 3

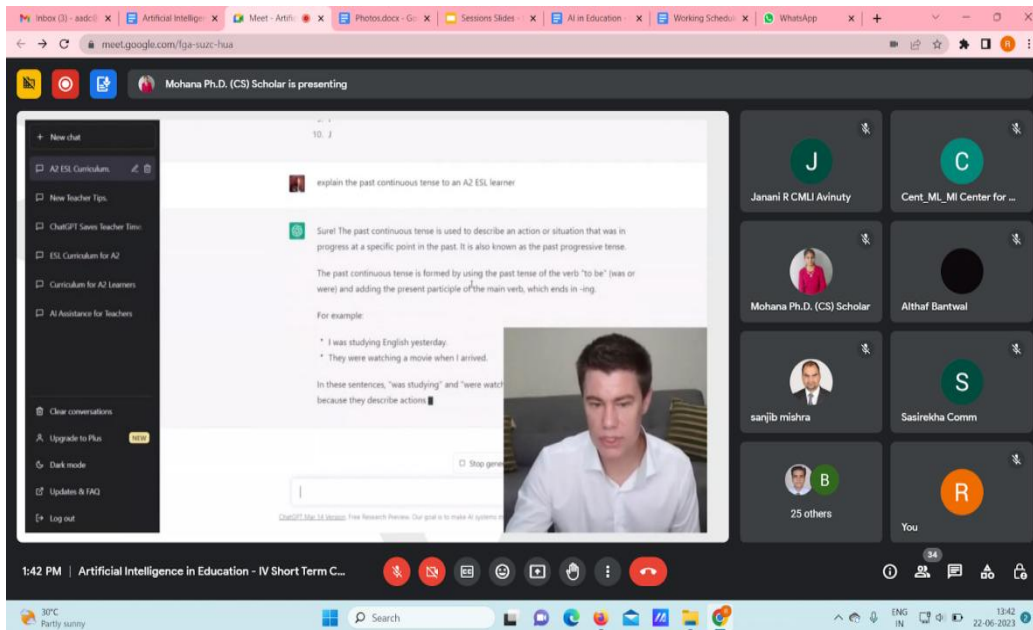
Activity - V: ChatGPT for Teachers

Dr. P. Subashini, Programme Coordinator and Ms. Mohana, Ph.D. Research Scholar from the Department of Computer Science at Avinashilingam Institute, Coimbatore, led an enlightening session on the versatile applications of ChatGPT for teachers. The session highlighted numerous ways ChatGPT can benefit educators in their teaching practices.

ChatGPT proves to be an invaluable aid in lesson planning, offering ideas, activities, and supplementary materials based on given topics or learning objectives. Additionally, teachers can use ChatGPT to address student queries beyond the classroom, providing timely support and additional explanations. Personalized learning experiences become possible as ChatGPT adapts to individual student needs. By inputting student profiles, learning styles,

and goals, ChatGPT suggests suitable resources, study strategies, and interactive quizzes or exercises.

Language teachers and learners find support in ChatGPT, as it facilitates language practice, simulates conversations, provides grammar and vocabulary explanations, and offers feedback on written work.



In online or remote learning environments, ChatGPT serves as a virtual tutor, providing guidance, answering questions, and ensuring student engagement. Moreover, it assists teachers in accessing professional development resources, staying informed on educational research, and engaging in reflective conversations. Furthermore, ChatGPT supports creative writing activities, offering prompts, generating story ideas, and providing feedback to improve students' writing skills.

While ChatGPT proves to be a valuable tool, it is essential to recognize that it should not replace human teachers' role. Human interaction, guidance, and expertise remain crucial for effective teaching and learning experiences. ChatGPT should be used as a complementary resource to enhance and support the teacher's role in the classroom.

Take away from the Session:

- 24/7 Access
- Personalized Recommendations

- Quick Answers
- Study Support
- Time Management

Day 4: 22.06.2023, Session 4

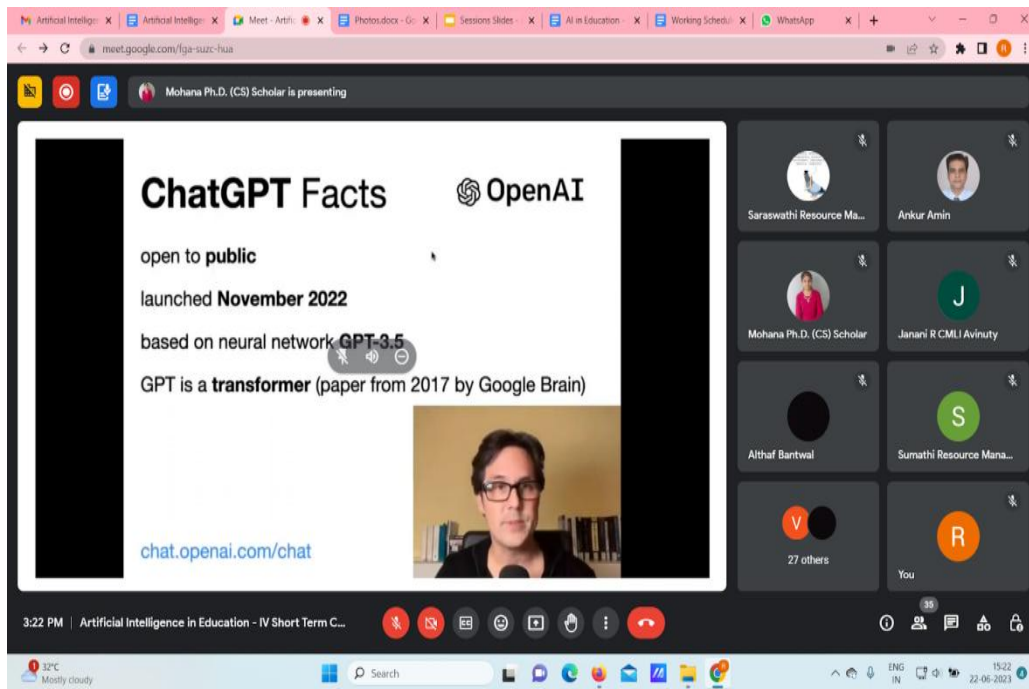
Activity - VI: ChatGPT for Learners

Dr. P. Subashini, Programme Coordinator and Ms. Mohana, Ph.D. Research Scholar from the Department of Computer Science at Avinashilingam Institute, Coimbatore, led an informative session on the diverse applications of ChatGPT as a valuable resource for learners. The session showcased various ways in which ChatGPT can support and enhance students' learning experiences.

ChatGPT serves as a reliable Homework and Study Support tool, offering explanations, examples, and additional resources to help students better comprehend their assignments and study materials. Language learners benefit from ChatGPT's assistance in conversation practice, receiving feedback on language usage, and practicing vocabulary and grammar in context.

The session highlighted ChatGPT's role in research and information gathering, providing relevant facts, definitions, explanations, and guiding students towards further research when working on projects or assignments. Additionally, ChatGPT proved to be a valuable Writing Assistance tool, suggesting ideas, offering prompts, providing grammar and style suggestions, and giving feedback on written work to enhance writing fluency and clarity.

Participants learned how ChatGPT promotes Personalized Learning, adapting to individual needs, learning styles, and interests. By inputting their goals and preferences, students receive tailored recommendations for learning resources, study plans, and strategies.



Take away from the Session:

- Tailored Instruction
- Personalized Support
- Advanced Technology
- Learning Styles
- Equitable Learning
- Diverse Backgrounds
- Effective Learning Experiences

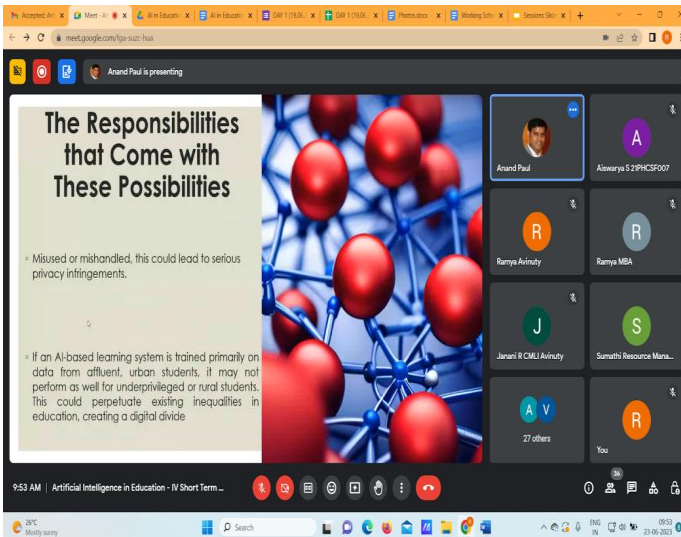
Day 5: 23.06.2023, Session 1

Ethical Considerations and Responsive AI in Education

Prof. Anand Paul, The School of Computer Science and Engineering
Kyungpook National University

In this informative session, Prof. Anand Paul discussed the role of Artificial Intelligence (AI) in education, focusing on its ability to personalize learning experiences and automate administrative tasks. AI in education enables tailored instruction by analyzing students' strengths and weaknesses, allowing tutoring systems to adapt their teaching styles to individual learning paces and preferences. Moreover, AI can streamline administrative tasks like grading, freeing teachers to focus on more complex aspects of teaching.

The session emphasized the ethical considerations of using AI in education, particularly privacy concerns when students interact with AI systems. Safeguarding sensitive information and using data solely for educational purposes is vital. Additionally, the potential for biases in AI algorithms highlights the importance of regularly auditing AI systems to ensure fair treatment of all students.



Responsive AI, which adapts to changing circumstances and user feedback, was explored as a means to address ethical considerations effectively. A transparent, accountable, and fair AI system can provide explanations for decisions, aiding in bias identification and understanding. By programming AI systems to adjust algorithms based on user feedback, accuracy and fairness can be improved over time, promoting more equitable educational experiences for all participants.

Take away from the Session:

- Privacy Concerns
- Lack of Transparency
- Responsible Use
- Responsive AI
- Ethical Considerations
- Technology with Ethics
- Responsible Educators

Activity - VII: Hands-on workshop on Augmented Reality

In this enlightening session, Dr. P. Subashini, Programme Coordinator and Ms. Aishwarya, a Ph.D. Research Scholar, discussed the exciting possibilities of Augmented Reality (AR) in education. AR technology overlays digital information and virtual objects onto the real-world environment, enhancing users' perception and interaction with their surroundings.

The session highlighted the diverse applications of AR in education, showcasing its numerous benefits for enhancing the learning experience. One prominent use is interactive visualizations, where AR brings static educational content to life by overlaying interactive 3D models or visualizations. For instance, students studying anatomy can use AR apps to explore the human body in 3D, zoom in on specific organs, and observe their functions.



AR enables virtual experiments, allowing students to conduct experiments in a controlled environment without the need for physical resources or safety concerns. This is particularly advantageous in science subjects like chemistry and physics. Moreover, AR provides historical and cultural immersion, transporting students to different time periods and locations for a more immersive experience. Overlaying historical or cultural information onto real-world sites or artifacts aids in gaining a deeper understanding of the subject matter.

AR also facilitates language learning by overlaying translations, pronunciations, and contextual information onto real-world objects or texts, improving vocabulary and comprehension skills interactively.

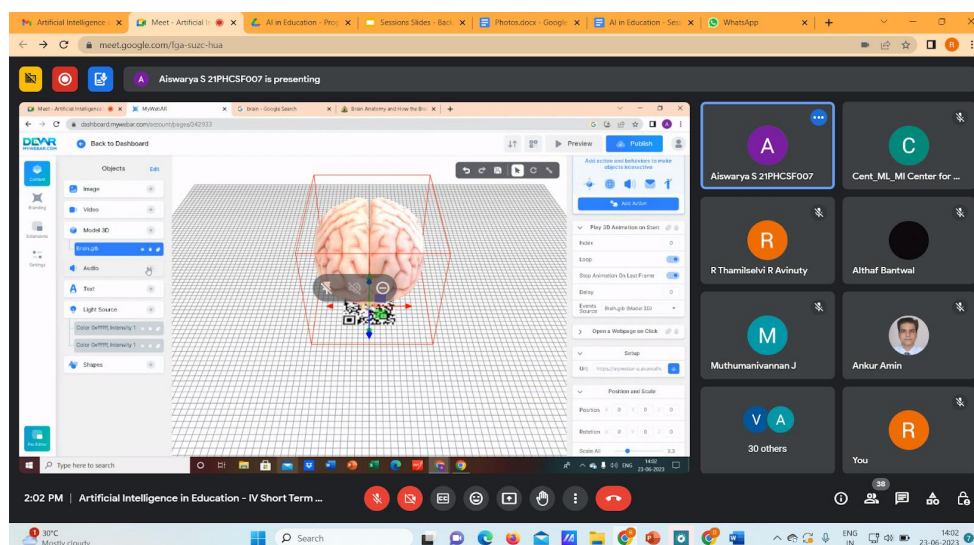
Take away from the Session:

- Geometry with AR
- Global Perspectives
- Virtual Field Trips
- Interactive Cultural Engagement
- Interactive Learning

Day 5: 23.06.2023, Session 3 and Session 4

Activity - VIII: Hands-on workshop on Augmented Reality

In this interactive session led by Dr. P. Subashini, Programme Coordinator and Ms. Aishwarya, a Ph.D. Research Scholar, participants were introduced to the MyWebAR application, an affordable augmented reality solution that supports older devices, including low-end laptops and Chromebooks. The session showcased the versatility of augmented reality across various domains. Participants learned about AR's applications in business, e-commerce, real estate, virtual guiding, digital marketing, automotive, image tracking, world tracking, and QR code tracking. Ms. Aishwarya highlighted how AR can support skill development by overlaying step-by-step instructions or interactive guides onto real-world objects, benefiting vocational training and practical skill enhancement. Additionally, AR can gamify the learning experience, adding elements of competition, rewards, and challenges to motivate active engagement with educational content.



Furthermore, the session emphasized AR's potential in special education, catering to diverse learning needs by providing personalized experiences, adapting content to different learning styles, and offering additional support to students with special needs, fostering inclusive learning environments. Participants also learned how MyWebAR enables developers to create augmented reality experiences by adding content to the scene, adjusting size and position, and incorporating custom functionality with PRO Editor. Brands and AR studios can even create white-label solutions for end-users, adding custom splash screens, loaders, and logos to the AR camera view.

Take away from the Session:

- Accessible AR Experiences
- Textbook Support
- AR on Smartphones
- Gaming Elements

Day 6: 26.06.2023 Session 1

What is Augmented Reality?

Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

The resource person of this session presented the recent widely used AR software applications namely, snapchat and Instagram . Further, the speaker demonstrated Augmented Reality software app and Face makeup using 2D and 3D.

Snap AR enables creators around the world to revolutionize the way we create, explore, and play. It covers a diverse sort of domain such as, utility, entertainment, shopping, self-expression, games and education.

Asset Library:

1. Essentials
2. 2D
3. 3D
4. Materials
5. Tools
6. VFX
7. SnapML
8. Music
9. Audio
10. Reference
11. Spectacles
12. API

Face makeup using 2D and 3D:

Capture an image using image or simply drag/drop the image. It offers eyeshadow, opacity texture and eyelashes. Object preview option helps to save production time and improves the presentation style of images. It uses anonymous and aggregated data to bring rich detailed insights. An overview of AR implementation approaches for beginners in real-time was also presented and discussed.

Take away from the Session:

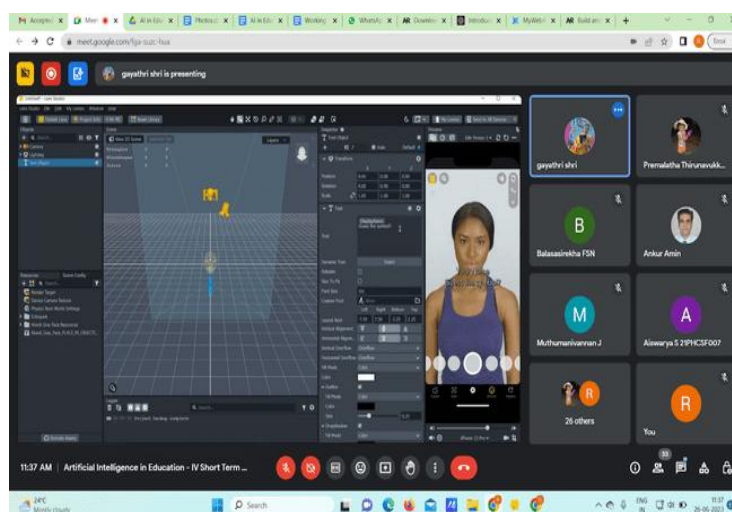
- AR tools enable interactive tasks.
- Exploration of open source tools and apps
- Need lot creativity, innovation, and analytics.
- Face effects are significant to create e-learning contents.

Day 6: 26.06.2023 Session 2

Face effects using AI

Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

The expert demonstrated one of the well-renowned software Lenslist. It is a platform designed for educational purposes, showcasing various features of it. She also talked about various software, including Snap AR, a platform for AR creators. Snap AR allows creators to build face filters, effects, and shaders for mobile AR experiences. The platform focuses on advancing AR, VR, and MR solutions while supporting creators, developers, artists, marketers, brands, and technologists.



The expert described the platform's essential features, like the randomiser option. She also talked about Lens Studio's compatibility with Snapchat mobile apps. Also, some features like Particle Controller Template allows users to control particles by opening and closing their mouth or triggering other events, enhancing AR effects. The speaker also described the Image Carousel and Activated Object Enabler are presented to create crayon experiences with 2D and 3D images, utilising head binding. The lens preview and publish options are also detailed, allowing users to create, update, submit, review, and publish lenses. Users can further enhance their images in a 2D panel by adding scripts and components.

Take away from the session:

- It is a powerful, best-in-class desktop application to build augmented reality experiences.
- AR filters used in social media like snap chat.
- Selecting suitable social media platform.
- Features available to create interactive AR applications in a diverse field.

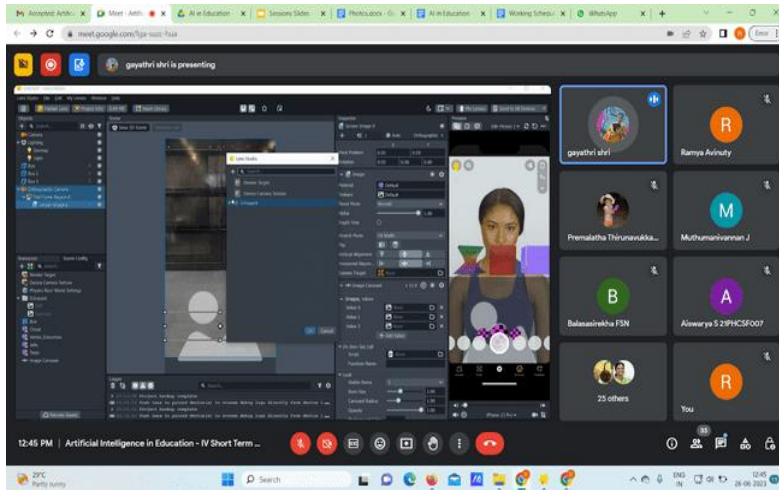
Day 6: 26.06.2023, Session 3

User Interface Workflow

Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

The session started with Lens Studio features which offer a versatile scripting engine to add behaviour and interactivity to components. This includes creating multiple-choice questions using doodle buttons and defining actions for these buttons through the Event Callback option. The buttons can be customised with different colours using the colour picker. Custom UI functionality lets users control how script properties appear in the Inspector panel.

The discussion includes the process of 3D binding to the scene, where different symbols are bound to images. The speaker talked about the 3D models available on sketchfab.com and demonstrated to create e-learning content. She also mentioned techniques like image segmentation extracts specific portions of images, enabling effects like chemical reactions and flowing water.



The speaker also highlighted optional controls for properties and widgets in Lens Studio, such as "label" to override text labels, "hint" to provide hover hints, and "widget" to specify the drawing widget. Lens Studio's scripting capabilities empower users to create dynamic and interactive experiences, making it a valuable tool for developing engaging AR content.

Take away from the Session:

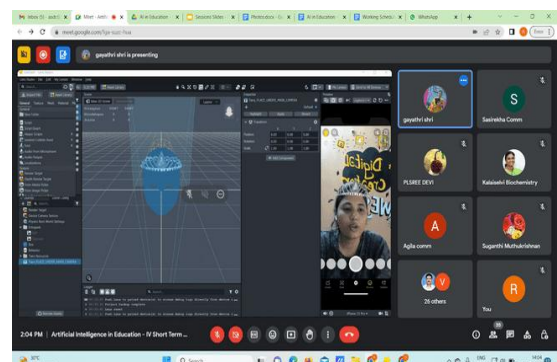
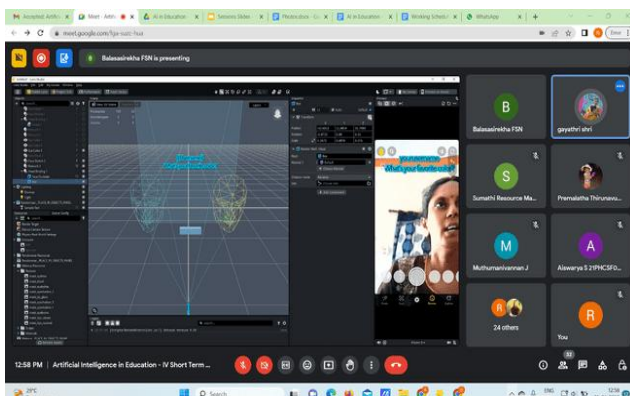
- Lens Studio allows users to create and share Snapchat lenses.
- Lens studio enhances STEM education through AR-based learning.
- Snap desktop app enables Lenses augmented reality experiences.
- Lens Studio is thoughtfully designed so that anyone can experiment, create, and express themselves through the medium of augmented reality on Snapchat.

Day 6: 26.06.2023, Session 4

Augmented Reality Case Study

Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

Application of Google Button, orthographic camera, and UAE Interface Helper was demonstrated.

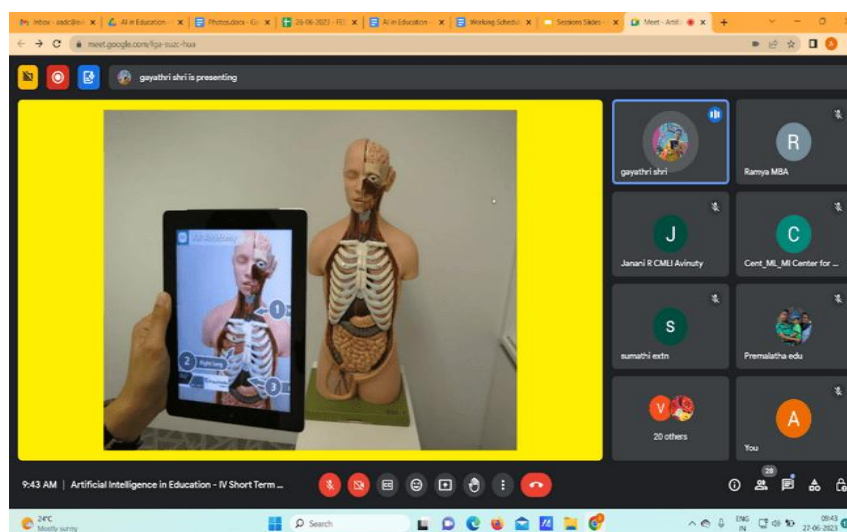


Day 7: 27.06.2023, Session 1

Face AR eyewear and headwear try-on Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

The speaker discussed Augmented reality (AR), an advanced and interactive augmentation of the real-world environment by integrating digital visual elements, auditory cues, and sensory stimuli using holographic technology. This immersive experience is disseminated to users via smartphones or AR glasses, superimposing digital information onto their perception of reality. The overlaid information can enrich the existing environment by adding contextual information or masking specific parts of the surroundings.

The speaker also talked about the implementation of AR and how we can execute such things in the operations. She also mentioned the dedicated open forum which is provided to foster discussions on the diverse array of academic applications of AR, encompassing fields such as human physiology, collaborative marketing analysis, colour psychology, enhanced learning for individuals with special needs, scientific concepts, astronomy, musical notation, and culinary transformations during cooking.



The speaker also highlights the features that accommodate animation effects, allowing animated meshes and word objects to be integrated into the 2D model and offering features like looping, transforming, and precise motion timing for images. She talked about the comprehensive tutorials available to facilitate the activation and execution of tweens, object previewing, and motion time modification. Ultimately, the AR model is enriched by incorporating behaviour, scripts, comprehensive information, colours, and tweets before being published as an interactive 2D model for evaluation.

Take away from the Session:

- AR technologies primarily benefit science and engineering fields.
- AR technology mapping involves extensive study and analysis.
- Initial e-learning materials development requires a comprehensive AR programming guide.
- Inclusion of AR features to the specific contents also varies and requires a deep understanding.

Day 7: 27.06.2023, Session 2

Animated Objects in the Real World

Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

In this session, the expert outline the process of downloading a heart image from a web source and integrating it into Lens Studio using marker tracking. The objective is to create a lens that tracks content to a unique physical image, providing an immersive augmented reality experience.

Downloading the Content:

The heart image is downloaded from the web source: <https://sketchfab.com/>. The image will serve as the marker for the AR lens, facilitating marker-tracking functionalities.

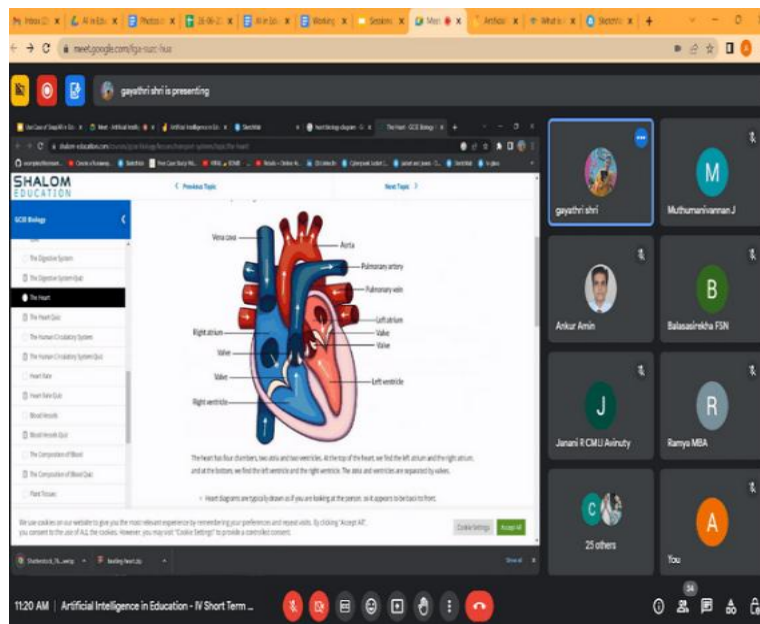


Image Marker Design:

To ensure smooth and accurate tracking, specific guidelines for image marker design are also described by the resource person, which are:

- The image should possess ample detail and contrast.
- Repetitive patterns are to be avoided.
- Low-resolution images should not be used.
- A PNG or JPG format with a resolution of 2048 x 2048 or less is preferred.

The speaker demonstrated importing the Image Marker and marker Tracking and Image Alignment. Also, she described adding Transform to 3D Models. To enhance user interaction, scripts and behaviours are integrated into the lens. This includes creating triggers using marker tracking events and motion time, allowing dynamic changes in the 3D model's behaviour when the marker is recognised. The expert discussed about model Size Optimization also.

Take away from the Session:

1. Marker, object and tracking in lens studio enhances student's learning abilities.
2. Holographic technology enhances students' attention capacity.
3. Animated Objects make learning fun and more engaging.

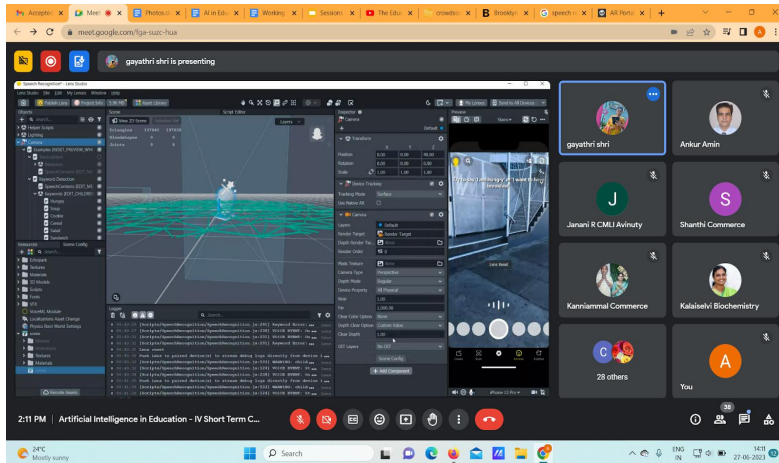
Day 7: 27.06.2023, Session 3

Augmented Reality Portals

Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

This session outlined the features and capabilities of 360 Degree portals and AR technology, specifically focusing on speech recognition and text-to-speech functionalities. The utilisation of augmented reality in creating personalised AR Portals for educational purposes is explored, along with demonstrations and practical examples using the Lens Studio.

AR Portals were also discussed, and the expert highlighted that the critical feature of these portals lies in their ability to be projected onto any surface, including floors and walls, through iOS/iPad or Android devices. This immersive experience enables users to enter these virtual spaces and engage with their content.



The expert also described speech recognition, a powerful technology integrated into Lens Studio, enabling it to convert spoken language into written text. She also discussed Lens Studio's speech recognition which supports multiple languages, including English, Spanish, French, and German, expanding its accessibility and reach. The speaker also talked about some educational applications of Speech recognition and text-to-speech integration in Lens Studio, which are,

- For language learning, students can practice pronunciation and receive instant feedback.
- In science lessons, students can explore interactive 360 portals to study complex subjects, such as human anatomy, using voice commands to access relevant information.

Takeaways:

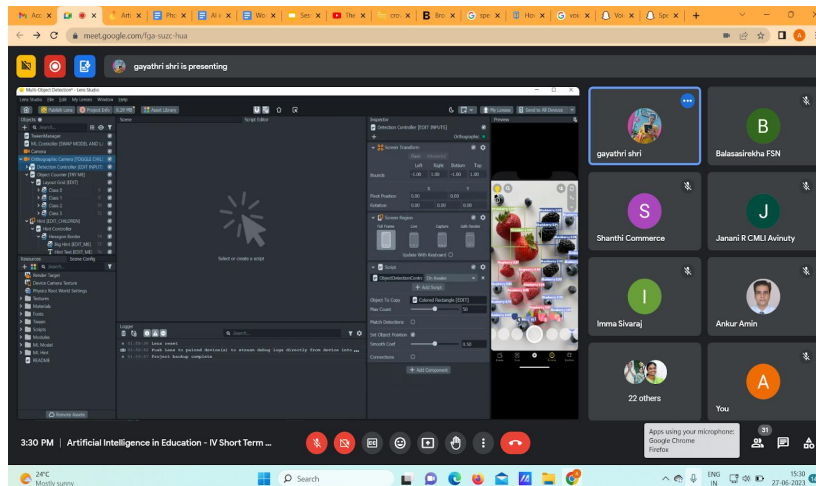
1. AR Portals and Lens Studio's speech recognition and text-to-speech functionalities open up exciting possibilities for education.
2. AR Portals shall be beneficial for slow learners & learning disabilities.
3. AR Portals shall be effectively used for research-based activities

Day 7: 27.06.2023, Session 4

Voice User Interface

Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

The session highlighted the capabilities of the Voice UI template in Lens Studio, which allows users to incorporate voice navigation command detection based on natural language understanding into Lenses. Additionally, it explored the object detection process using machine learning in Lens Studio, enabling the creation of immersive and interactive experiences.



The speaker discussed about the Voice UI template, which provides comprehensive tools and helpers to create voice-based experiences in Lenses. The central asset for voice-related functionalities is the VoiceML Module, accessible through the Resource panel. Within the VoiceML Module, all the voice recognition and transcription settings can be configured, ensuring a seamless voice interaction with the lens. The speaker discussed transcription and Speech Context. With VoiceML, the lens can accurately recognise and transcribe speech to text. Basic settings for transcription should be defined to ensure accurate results. Additionally, the transcription can add speech contexts to boost specific words relevant to certain scenarios. This ensures that rarer words are correctly transcribed and improve overall accuracy. The expert also demonstrated Keyword Detection, NLP Keyword Models, and Object Detection using Machine Learning.

The session opened up exciting possibilities for creating interactive and immersive Lenses. With voice navigation and object recognition, developers can craft engaging experiences that respond to users' commands and interactions, enhancing the overall user experience and pushing the boundaries of augmented reality applications. Combining VoiceML and machine learning empowers creators to deliver dynamic and user-centric Lenses to a broad audience.

Take away from the Session:

- AR's encourages interactivity and engagement.
- Maximises students' ability to learn curricular subjects
- AR is highly useful for students with learning difficulties.
- Immersive classrooms using AR

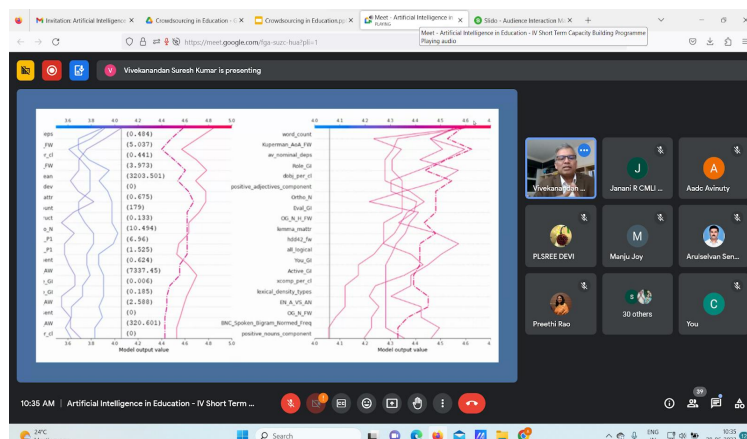
Artificial Intelligence in Education: AI-based Assessment

Dr. Vivekanandan Suresh Kumar,
Associate Dean - Research & Innovation,
Professor - Computing & Information Systems, Athabasca University.

The session led by Dr. Kumar discussed the limitations of traditional assessments and the benefits of non-traditional approaches in educational settings. It also explored the advantages of AI-based appraisals and their potential to improve teaching effectiveness and evaluate student performance.

Limitations of Traditional Assessments: Traditional assessments, such as norm-referenced exams, have long been used to evaluate student performance. However, concerns about the authenticity of coursework and the fairness of one-shot exams have raised questions about their efficacy. While traditional assessments offer efficiency in test administration, objective scoring, and cost-effectiveness, they often need to understand students' knowledge and skills comprehensively. Moreover, they can be restrictive and do not promote active, collaborative, and longer-term learning experiences.

Benefits of Non-Traditional Assessments: Non-traditional assessments, such as portfolios, projects, journals, and learning by teaching, offer a more holistic approach to evaluating student learning. These methods focus on engagement, influence, impact, knowledge and intellectual abilities, research governance, and personal effectiveness. They encourage active participation, collaboration, and flexibility in time, fostering a deeper understanding of the subject matter. Non-traditional assessments also allow for subjective evaluations, promoting creativity and critical thinking skills.



The speaker also emphasised that AI-based assessments leverage artificial intelligence's power to revolutionise the evaluation process. Using Generative Pre-trained Transformers (GPT) like ChatGPT, these assessments can analyse vast amounts of data to understand how learning occurs. AI-based systems offer evidence-based insights and can detect plagiarised content, assess the originality of assignments, and measure teaching effectiveness.

The speaker also discussed about ethical considerations and its significances. He pointed out the collection and use of student data for AI assessments which must adhere to strict ethical guidelines to protect students' privacy and ensure the responsible use of data.

Take away from the Session:

- It exhibits the ability for high-order thinking.
- It improves analysis, synthesis and creativity.
- It helps with self-regulation and meta-level skills.
- Learning by teaching is a vital assessment method.

Day 8: 28.06.2023, Session 2

Responsible AI

Dr P. Subashini,

Professor of Computer Science, Avinashilingam Institute, Coimbatore

The Speaker discussed comprehensively about the need for responsible AI in the contemporary world. The following contents were discussed during the session:

- Risks associated with use of AI Systems.
- Understanding the AI system's functioning for safe and reliable deployment
- Post-deployment
- Consistency across stakeholders
- Incorrect decisions leading to exclusion from access to services or benefits
- Accountability of AI decisions
- Privacy risks and Security risks.
- Societal Considerations
- Impact on Jobs

The principles in developing responsible management of AI Systems was presented: Safety and reliability, equality, inclusivity and non-discrimination, privacy and security, transparency, accountability and protection and reinforcement of positive human values.



Take away from the Session:

- People need to adapt to the changing landscape
- Policymakers to develop long-term strategies to harvest the economic potential of AI.
- Principles of Responsible AI

Day 8: 28.06.2023, Session 3

Crowdsourcing in Education

Dr T.T. Dhivyaprabha

Research Associate, DST-CURIE-AI, Centre for Machine Learning and Intelligence, Avinashilingam Institute, Coimbatore.

In this session, Dr. Dhivyaprabha discussed about Crowdsourcing, which refers to companies or institutions outsourcing tasks previously performed by employees to a diverse and extensive network of individuals through an open call. In education, crowdsourcing has emerged as a powerful concept, and digital learning platforms have embraced this approach to enhance the educational experience. This session explored the application of crowdsourcing in education, focusing on five case studies and the ethical considerations involved, which are,

Case Study 1 : A Taxonomy for Crowdsourcing in Education

Case Study 2 : Toward Personalizing Students' Education with Crowdsourced Tutoring

Case Study 3 : Crowdsourcing Content Creation in the Classroom

Case Study 4 : RiPPLE: A Crowdsourced Adaptive Platform for Recommendation of Learning Activities

Case Study 5 : Ethical Issues of Crowdsourcing in Education

Crowdsourcing has revolutionised education by democratising content creation, personalising learning experiences, and promoting collaborative environments. Digital learning platforms like MOOCs, Udemy, EdX, Coursera, and FutureLearn have embraced crowdsourcing concepts to provide high-quality educational resources to a global audience. The case studies presented in the session highlighted the potential and versatility of crowdsourcing in education. However, ethical considerations to be met to ensure the protection and well-being of its users. As technology advances, crowdsourcing in education is poised to play a pivotal role in shaping the future of learning.

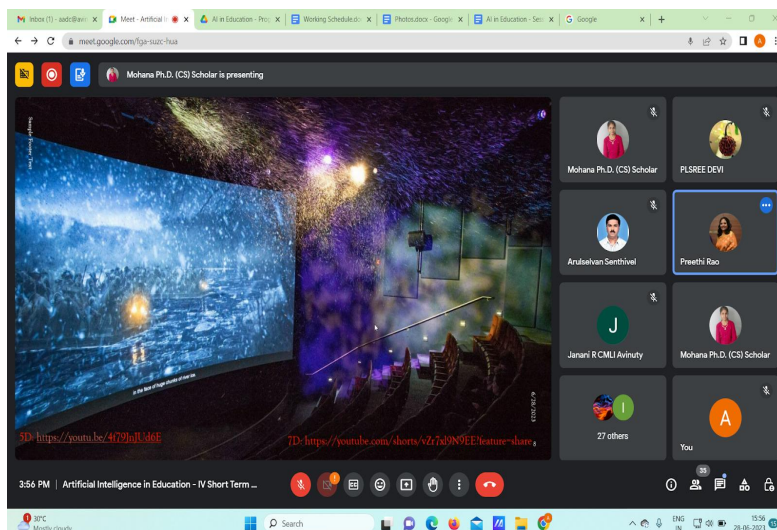


Take away from the Session:

- Crowdsourced model connects experts worldwide, institutions, teachers, learners, librarians, policymakers and educators
- Crowdsourcing Types
- Benefits of crowdsourcing for Educators
- Benefits of crowdsourcing for Students

Mulsemmedia in Education

The session on Mulsemmedia in Education was handled by Dr. P. Subashini, Programme Co-ordinator, Avinashilingam Institute, Coimbatore. Mulsemmedia stands for multiple sensorial media. It is a fascinating field encompassing various research efforts and applications to engage multiple senses in the human experience. This session provided a historical overview of mulsemmedia work while highlighting its current developments and applications. The scope of mulsemmedia extends across various domains, including virtual reality, computer games, arts, gastronomy, and therapy, presenting a diverse array of opportunities for sensory exploration.



Mulsemmedia represents a captivating frontier in multimedia research, exploring the integration of multiple senses to create immersive and engaging experiences across diverse domains. From virtual reality to gastronomy, mulsemmedia applications have the potential to revolutionise how humans interact with technology and entertainment. Standardisation efforts through the MPEG-V standard pave the way for widespread adoption and innovation in this field. However, as the mulsemmedia community ventures into uncharted territories, it must address challenges related to implementation, technology limitations, and ethical considerations. The speaker insisted that by overcoming these obstacles, mulsemmedia can unlock new sensory perception dimensions, transforming how we perceive and interact with the world around us.

Take away from the Session:

- Innovative mulsemmedia and multi-modal content distribution mechanisms provided diverse opportunities for technology-enhanced learning (TEL).
- Mulsemmedia supports gamification, personalisation and adaptive learning.
- Mulsemmedia is highly effective for STEM courses

Day 9: 29.06.2023, Session 1

Enhancing Student Success with AI-Powered Learning Analytics

Prof. Anand Paul,
School of Computer Science and Engineering, Kyungpook National University

The speaker initiated the presentation with emphasis on need for integrating artificial intelligence (AI) into education in order to enhance student outcomes through data-driven insights and personalised experiences. This session highlighted strategies to leverage AI in learning analytics, focusing on personalised learning, early identification of at-risk students, adaptive assessments, predictive analytics, intelligent tutoring systems, data-driven decision-making, student engagement, continuous monitoring, and collaborative learning. These strategies would help educators create a holistic and practical learning environment that nurtures student success.

The screenshot shows a Google Meet window with a presentation slide. The slide title is "The Impact of AI-Powered Learning Analytics on Student Success". The slide content includes a diagram with four main stages: Assessment, Analysis, Development, and Design. The Design stage is further divided into Technical type and Conceptual type. The meeting interface shows participants: CCMP KNU, Ramya MBA, Aiswarya S 21PHC..., Premalatha edu, Muhammad Rizza..., Shanmughapriya A..., Immaculate sivaraj, 26 others, and You. The bottom of the screen shows the time 10:33 AM and the title "Artificial Intelligence in Education - IV Short Term ...".

Adaptive Assessments were also discussed. AI-based assessments adjust question difficulty based on student responses dynamically, ensuring optimal challenge and fostering skill mastery. Few of the topics discussed are as follows:

- Predictive Analytics
- Intelligent Tutoring Systems

- Data-Driven Decision Making
- Student Engagement and Motivation
- Continuous Monitoring and Feedback
- Collaborative Learning

The speaker highlighted that integrating AI in learning analytics offers a multifaceted approach to improving student outcomes.

Take away from the Session:

1. Ensure safe deployment of AI systems.
2. AI Swift Intervention Insights
3. AI based Assessments

Day 9: 29.06.2023, Session 2

Digital Transformation: AI for Everyone

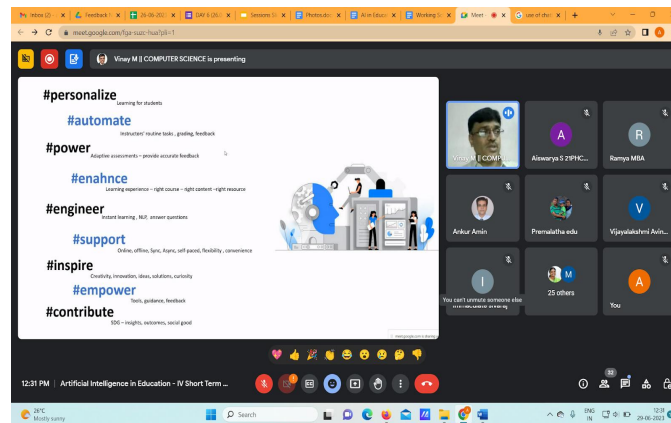
Dr. Vinay, Christ University, Bengaluru.

The session led by Dr. Vinay emphasised that the digital transformation revolutionizes the world. Exponential technological changes covers:

1. Fourth industrial revolution
2. Artificial Intelligence
3. Bigdata
4. Metaverse

The speaker also highlighted about the rise of the gig economy, which is a segment of the service economy based on flexible, temporary or freelance jobs, often involving clients and customers through online platforms.

The speaker also discussed about future AI to focus on sectors like healthcare, security & defense, education, government, telecommunication, manufacturing, retail, media, energy and financial services.



The session introduced Google Bard, which is a service created by Google to automate everyday tasks and help users accomplish their goals. Google Bard is a machine learning system based on natural language processing (NLP). It uses artificial intelligence techniques to understand user requirements and respond in a relevant way. Google Bard shall be used to perform tasks such as research. The speaker concluded that digital transformation revolutionizes and creates new or modified existing business processes, cultures, and customer experiences to meet changing business and market requirements.

Take away from the Session:

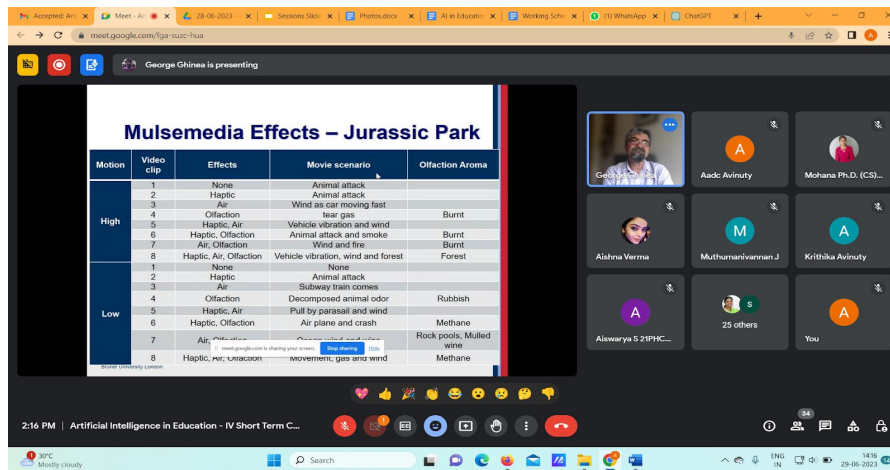
- Chatbots can be used to streamline one’s personal services such as fitness, diet etc.
- AI in education is essential to automate workflows
- Use of Google Bard

Day 9: 29.06.2023 Session 3

Multi-sensorial eBooks

Prof. George Ghinea, Brunel University, London, U.K.

The session led by Prof. Ghinea discussed about multimedia and mulsemmedia, which ushered in a new era of education, revolutionising learning methodologies and instructional approaches. In this session, expert examined the profound influence of multimedia and mulsemmedia on education, highlighting their role in enriching the learning experience, enhancing accessibility, promoting interactivity, enabling personalised learning, fostering collaboration, and providing a wealth of resources.



Following are the key highlights of the session:

- ✓ Multimedia enriches the learning experience by captivating students' attention and catering to diverse learning styles by encompassing audio, video, images etc.
- ✓ The integration of multimedia and mulsemmedia addresses the needs of diverse learners.
- ✓ Multimedia and mulsemmedia fosters interactive learning and critical thinking skills as it empowers students to manipulate objects, conduct virtual experiments, and engage in problem-solving activities.
- ✓ AI algorithms analyse student performance, offering targeted feedback and adaptive instruction and facilitating personalised learning journeys.
- ✓ Multimedia facilitates collaboration through online platforms, video conferencing tools, and discussion forums.
- ✓ Multimedia and mulsemmedia grant students access to diverse digital resources, from e-books to online libraries and multimedia presentations
- ✓ Multimedia tools empower educators by offering professional development opportunities.
- ✓ Multimedia and mulsemmedia erase geographical boundaries, allowing students to connect with peers and experts worldwide.
- ✓ Multimedia and mulsemmedia introduce novel assessment methods beyond traditional tests. Students can demonstrate their understanding through multimedia projects, presentations, and interactive simulations.

Take away from the Session:

- Collaborative learning and communication among students and teachers.
- Novel Assessment Methods
- Enhances Inclusive Environment
- Interactive multimedia tools

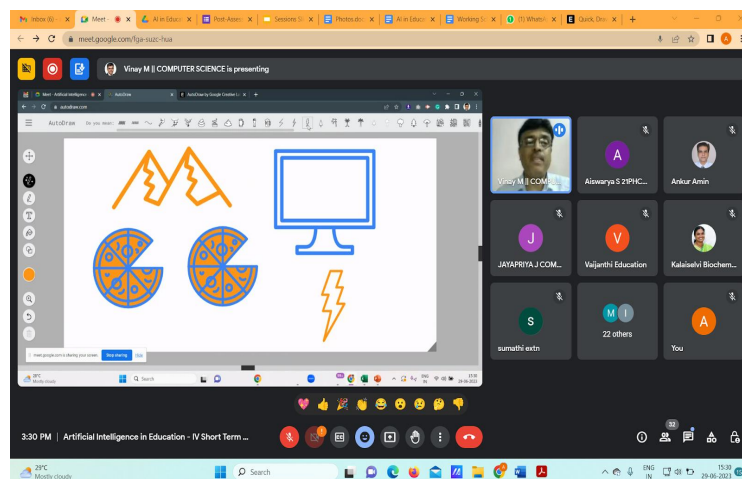
Day 9: 29.06.2023, Session 4

Digital AI Tools and Techniques for Teaching and Learning

Dr Vinay, Christ University, Bengaluru.

The session discussed the development of an era of rapid technological advancements, innovative tools, and platforms that are reshaping the landscape of creative expression, productivity, and artificial intelligence. This session delved into cutting-edge platforms that leverage machine learning and neural networks to enhance drawing, communication, writing, and image editing experiences. The following are the topics covered in the session:

- AutoDraw - Unleashing Creativity
- Quick, Draw! and AI-powered Fun
- Expanding AI's Artistic Capabilities
- Seamless Image Editing and Text Enhancement
- Google Workspace and Beyond
- Grammarly - Empowering Written Communication
- Shivaami - Facilitating Technological Transformation



The resource person emphasised that the digital age has created an exciting array of AI-powered tools and platforms that redefine creativity, communication, and productivity. From doodles to text, these innovations seamlessly integrate machine learning, enhancing user experiences and setting the stage for a future where AI becomes integral to everyday tasks and interactions. Various features of the freely available Google drawing tools, google docs, and google slides were also demonstrated.

Take away from the Session:

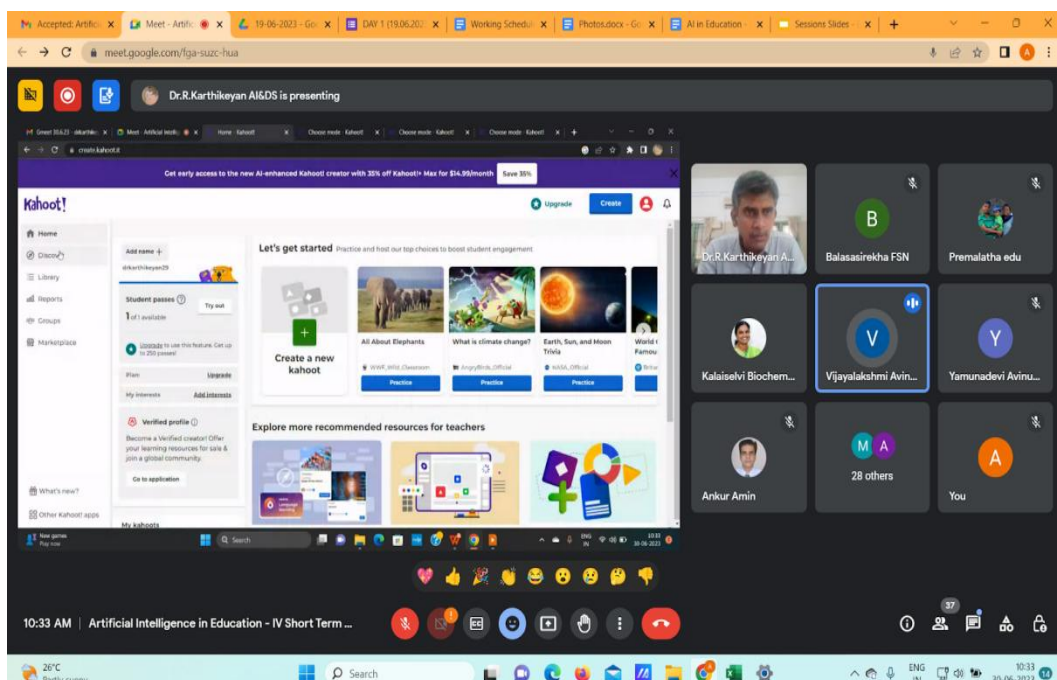
- Free AI tools
- AI enabled Google Services.
- Generative AI components
- Google's generative AI integration
- AI-powered chat summaries
- Enhanced writing prompts.

Day 10, 30.06.2023, Session 1

AI for Educators

Dr. R. Karthikeyan, Head, Dept. of AI & DS, NGP College, Coimbatore

The session on Education - Teaching & Learning Process and Artificial Intelligence for Educators, led by Dr. R. Karthikeyan, Head of the Department of AI & DS at NGP College, Coimbatore, provided valuable insights into the integration of AI in the educational landscape. Demonstrations of AI tools for educators, such as Kahoot, Quizizz, Mentimeter, and rolljack.com, showcased how technology can enhance instructional design and student engagement.



One of the key highlights was the "Music Model of Motivation," which emphasized empowerment, usefulness, success, interest, and caring as essential factors for motivating learners. Dr. Karthikeyan highlighted the importance of educators empowering and mobilizing youth while adopting a facilitator role, fostering collaboration and co-creation among learners.

Education for sustainability emerged as a central theme, stressing the need to embed sustainable development goals into the institutional DNA. The approach seeks to cultivate ecological literacy, critical thinking, problem-solving abilities, and a sense of responsibility toward the environment and society. Principles like systems thinking, interdisciplinary learning, and future orientation were emphasized to address sustainability challenges effectively.

The session urged educators to serve their local communities and instill universal human values in learners. By integrating technology with pedagogy, teachers can craft innovative curricula that support sustainable practices and promote social equity and justice. The incorporation of generative AI components into Google's tools, enhancing tasks like email composition and chat summaries, showcased the evolving impact of AI in education.

Overall, the session encouraged educators to embrace AI tools and technology while upholding their roles as facilitators and leaders. By promoting sustainable education and empowering learners to be collaborators and co-creators, the session emphasized the transformative potential of AI in shaping a sustainable and responsible future for individuals, communities, and the planet.

Take away from the Session:

- AI Integration Across Subjects
- Enhanced Learning and Understanding
- AI-Driven Assessment
- Personalized Learning
- Improved Performance Measurement
- Identifying Learning Patterns
- Observational Skills Assessment

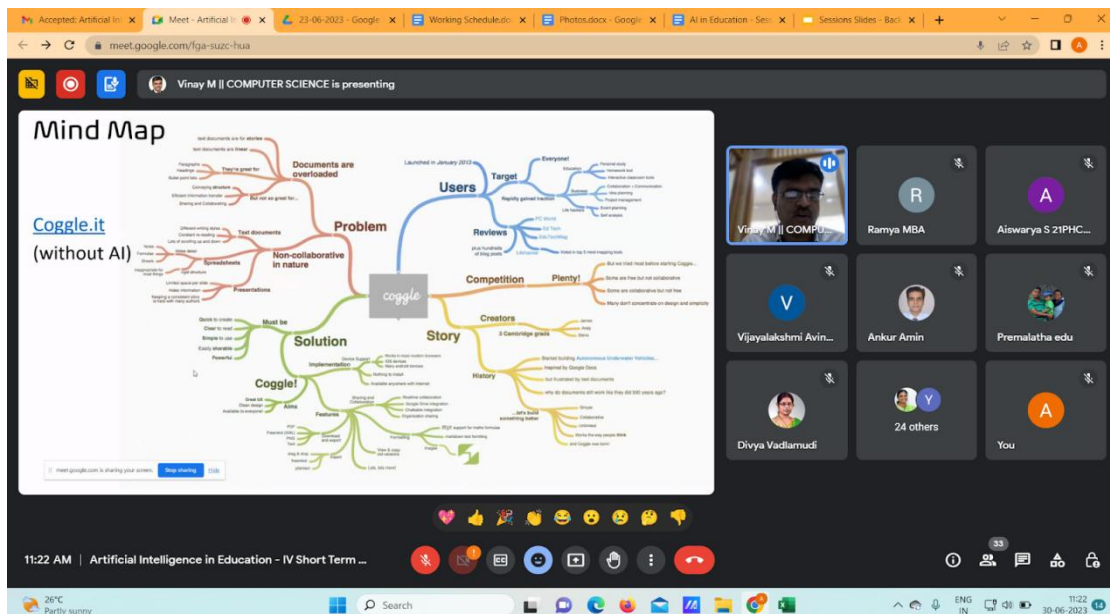
- Transformative Education
- Student-Centric Approach
- Future-Ready Learning

Day 10, 30.06.2023, Session 2

Digital AI tools and Techniques for Teaching and Learning

Dr. Vinay, Christ University, Bengaluru.

In a highly engaging and interactive session, Dr. Vinay from Christ University, Bengaluru, led a hands-on exploration of Digital AI tools and Techniques for Teaching and Learning.



The session's hands-on nature ensured that participants not only grasped the theoretical concepts but also gained practical insights into leveraging AI effectively in their educational practices.

Examples :

- ❖ Coggle : <https://coggle.it/>

Coggle is a user-friendly online tool for creating and sharing mindmaps and flowcharts. With its browser-based functionality, collaboration and modification become seamless, enhancing productivity and efficiency.

❖ Tome: <https://tome.app/ai>

Tome is an innovative generative storytelling format, powered by artificial intelligence, that expertly assists you in crafting and refining your narrative at every stage of the storytelling process, enabling unparalleled storytelling excellence.

❖ Curipod: <https://curipod.com/>

Curipod is an AI-powered tool designed to create dynamic lesson plans and interactive course content, elevating the teaching and learning experience to new heights.

❖ Menti: <https://menti.com/>

Enhance student engagement with live polls, word clouds, quizzes, and multiple-choice questions. Evaluate learning outcomes by analyzing responses for informed decision-making.

Take away from the Session:

- AI Tools for Teaching-Learning
- Information visualization, data visualization
- AI Tools for Communication, interaction with peers, collaboration, teamwork

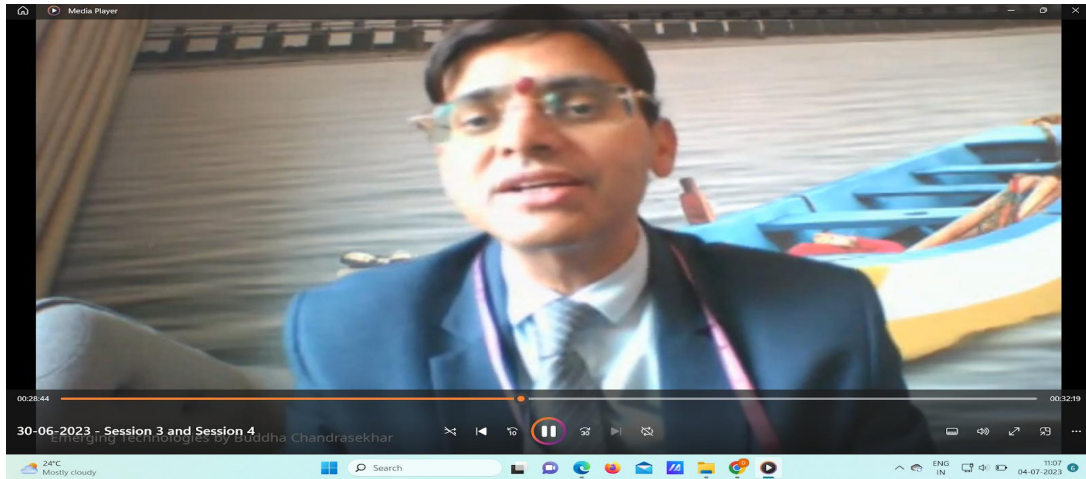
Day 10: 30.06.2023, Session 3

Valedictory Session

Dr. Buddha Chandrashekar ,Chief Coordinating Officer, AICTE

Dr. Buddha Chandrashekar, the Chief Coordinating Officer of the All India Council for Technical Education (AICTE), conveyed his heartfelt congratulations to the participants of the fourth short-term capacity building program on artificial intelligence (AI) in education. This program was a resounding success, and Dr. Chandrashekar expressed his delight in witnessing the growing interest and engagement in the field of AI.

In his address, Dr. Chandrashekar emphasized that AI's significance extends far beyond education; it permeates all aspects of life and has the potential to revolutionize various industries. He shared a notable example of an industry in Germany leveraging AI to build top-notch automobiles, highlighting the importance of global collaboration and digital twinning for the benefit of students worldwide.



Diving into the realm of AI in education, Dr. Chandrashekar discussed its diverse applications and potential benefits. He stressed the need for data collection and analysis to personalize learning experiences for students. AI-driven intelligent tutoring systems were lauded as a critical aspect of the future of education, enabling individualized guidance and support for each learner. Moreover, he spoke about the role of AI in addressing language barriers through translation tools like Anu Adhini, which could facilitate inclusive education by making learning materials accessible in local languages.

The Chief Coordinating Officer envisioned a bright future where AI transforms education and society, making it accessible to all, including differently-abled individuals. He proposed the creation of a unique education ID, allowing students to receive personalized course suggestions based on their strengths and weaknesses. This, he believed, would enable holistic development and guide students towards their desired career paths.

Dr. Chandrashekar highlighted the importance of hands-on workshops and AI-based assessments in evaluating students' practical skills and aligning education with industry demands. He also emphasized the role of AI in detecting fraud, which could significantly impact financial security and transparency in various sectors.

The address exuded optimism and enthusiasm for the potential of AI in driving India's progress. Dr. Chandrashekar expressed his gratitude to the organizers and participants for their contributions to the program. He encouraged continued collaboration and shared that ongoing efforts to implement 5G and 4G volt technologies would further advance AI applications, opening doors to limitless possibilities.

In conclusion, Dr. Chandrashekar called upon the participants to embrace AI's transformative power and work together to take India forward. By harnessing the potential of AI and embracing continuous organized programs, India can lead the way in AI-driven innovation and development, benefiting not only education but society as a whole. The valedictory address left the participants inspired and motivated to explore the endless possibilities offered by AI for the betterment of the nation and its citizens.

Take away from the Session:

- Global collaboration and digital twinning benefit students worldwide.
- AI can personalize learning experiences through data analysis.
- Intelligent tutoring systems offer individualized guidance.
- Language barriers can be overcome with AI translation tools.
- AI makes education accessible to all, including differently-abled individuals.

Participants List

S.No	Name	Designation	Institution
1	Dr. Divya Vadlamudi	Associate Professor	KL Deemed to be University
2	Dr.R.K.Kavitha	Assistant Professor	Kumaraguru College of Technology
3	Ms. Immaculate Sivaraj	Assistant Professor	Madras Christian College
4	Ms.ElizabethLeah George	Assistant Professor	Nagindas Khandwala College
5	Ms.Preethi Rao	Coordinator	Nagindas Khandwala College
6	Ms.Preetha George	Assistant Professor	Kannur University
7	Ms.Manju Joy	Assistant Professor	FISAT
8	Dr. Ankur D. Amin	Assistant Professor	Sardar Patel University
9	Ms.Anisha Asirvatham	Assistant Professor	Nagindas Khandwala College
10	Mr.Muthumanivannan.J	Assistant Professor	SRM Institute of Science and Technology
11	Dr. Arulselvan.S	Associate Professor	Pondicherry University
12	Dr. Kalaiselvi Senthil	Associate Professor	Avinashilingam Institute for Home Science for Higher Education for Women
13	Dr. Muhammad Rizza Pahlevi	Professor	University of Kahuripan Kediri

14	Dr. Mohan Venkataramana	President	Experteze Research
15	Dr.M.Agila	Assistant Professor	Avinashilingam Institute for Home Science for Higher Education for Women
16	Dr.P.Chitramani	Professor	Avinashilingam Institute for Home Science and Higher Education for Women
17	Dr.S.Thilagamani	Assistant Professor SG	Avinashilingam Institute for Home Science and Higher Education for Women
18	Mrs.T.Premalatha	Assistant Professor	Avinashilingam Institute for Home Science and Higher Education for Women
19	Dr .Chandrakala. D	Professor	Kumaraguru College of Technology
20	Dr.P.Sasirekha	Assistant Professor	Avinashilingam Institute for Home Science and Higher Education for Women
21	Dr.S.Yamuna Devi	Assistant professor	Avinashilingam Institute for Home Science and Higher Education for Women
22	Dr. Sarasvathy.V	Assistant Professor (SS	Avinashilingam Institute for Home Science and Higher Education for Women
23	Dr. D. Sumathi	Assistant Professor (SS)	Avinashilingam Institute for Home Science and Higher Education for Women
24	R.Thamilselvi	Ph.D. Research Scholar	Avinashilingam Institute for Home Science and Higher Education for Women
25	Ms. M.Vijayalakshmi	Assistant Professor	Avinashilingam Institute for Home Science and Higher Education for Women
26	Ms.Aishna Verma	Ph.D. Research Scholar	University of Lucknow
27	Dr.K.Sumathi	Assistant Professor	Avinashilingam Institute for Home Science and Higher Education for Women
28	Dr. Sanjib Mishra	Assistant Professor	Oxford College of Engineering and Management
29	Dr.R.Balasarrekha	Assistant Professor (SS)	Avinashilingam Institute for Home Science and Higher Education for Women
30	Dr.R.Vaijyanthi	Assistant Professor (SG)	Avinashilingam Institute for Home Science and Higher Education for Women
31	Dr.E.Shanmugha Priya	Assistant professor	Avinashilingam Institute for Home Science and Higher Education for Women
32	Ms.Sri Geetha.M	Assistant Professor	Kumaraguru College of Technology

33	Dr.A.N.Krithika	Assistant professor	Avinashilingam Institute for Home Science and Higher Education for Women
34	Dr.P.Santhi	Professor	Avinashilingam Institute for Home Science and Higher Education for Women
35	Dr.K.Kanniammal	Professor	Avinashilingam Institute for Home Science and Higher Education for Women
36	Sugandhi. K	Assistant Professo	Kumaraguru College of Technology
37	Abdul Zabbar	Vice Principal	A.F.E.T Moodabidri
38	Ms.L.Devi	Ph.D. Research Scholar	Sri Srinivas University
39	Dr.B.Sangeetha Priya	Assistant Professor	Avinashilingam Institute for Home Science and Higher Education for Women
40	Maria Muthukumar	Assistant Professor	Vivek College of Commerce
41	Ms.Estri Laras Arumingtyas	Professor	Brawijaya University
42	Ms.Zulekha Sanam Bani	Coordinator	A.F.E.T Moodabidri
43	Mr.Muhammad Naeem Akhtar	Senior Technical Advisor	GIZ (TVET) SSP
44	Mr.Golam Mostafa	Graphic Designer	AKUPPI
45	Ms.Mehnaz Sharmin Mohona	Master Trainer	RISDA Institute of Technology

Sample Certificate



Avinashilingam Institute for Home Science and Higher Education for Women
Deemed to be University Estd.u/s 3 of UGC Act 1956, Category A by MHRD
Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore-641043, TamilNadu, India



AIU - Avinashilingam Institute - Academic & Administrative Development Centre (AIU-AI-AADC)
&
Centre for Machine Learning and Intelligence (CMLI)



Certificate No: AIU - AI - AADC/ 2022 - 2023 / 04/ 008

CERTIFICATE OF PARTICIPATION

This is to certify that
Dr.Ankur D.Amin
Assistant Professor, PG Department of Business Studies
Sardar Patel University
has participated in the Fourth Short Term Capacity Building Programme on
ARTIFICIAL INTELLIGENCE IN EDUCATION conducted by
AIU - Avinashilingam Institute – Academic & Administrative Development Centre (AIU - AI- AADC) & Centre for Machine Learning and Intelligence (CMLI) held from
19/06/2023 to 30/06/2023 and his performance was Excellent.


Dr. K. Ramya
Nodal Officer
AIU-AI-AADC


Dr. P.Subashini
Programme Coordinator


Dr. Amarendra Pani
Joint Director & Head
Research Division, AIU


Dr. Pankaj Mittal
Secretary General
AIU


Dr. S.Kowsalya
Registrar
Avinashilingam Institute


Dr. V. Bharathi Harishankar
Vice Chancellor
Avinashilingam Institute

AIU-AI-AADC
Fourth Short-Term Capacity Building Program on ‘AI in Education’
19.06.2023 - 30.06.2023

Date/Day	Session I 9.30 am to 11 am	Session II 11.15 am to 12.45 pm	Session III 1.30 pm to 3 pm	Session IV 3.15 pm to 4.45 pm
Day 1 19/6/2023 Monday	Inauguration & Special Address Dr. Basheerhamad Shadrach , Director, Commonwealth Educational Media Centre for Asia Email : bshadrach@col.org	National Education Policy and Technology Dr. S.P. Thyagarajan , Former Chancellor Avinashilingam Institute Email : Profspt@gmail.com Ph : 9840046575	Activity – I Pre-assessment of AI in Education	Paradigms of AI in Education Dr. K. Murugan Former Registrar Tamil Nadu Open University. Email : kris.murugan@gmail.com Ph : 9940681760
Day 2 20/6/2023 Tuesday	The End of Education Prof. Aleksander Petrovic , Vice President and Faculty of Philology, University of Belgrade, Serbia	Activity I : AI supported Learning Environment Dr. P. Subashini , Programme Co-ordinator and Ms. Jennyfer Susan , Ph.D. Research Scholar in the Department of Computer Science. Email : subashini_cs@avinuty.ac.in Ph : 9442271971	Activity II: An Overview of AI in Education Dr. T.T. Dhivyaprabha , Research Associate, DST-CURIE-AI, Avinashilingam Institute, Coimbatore.	Mapping Technology and Pedagogies Dr. V. Bharathi Harishankar Vice Chancellor Avinashilingam Institute Email : Vc@avinuty.ac.in Ph : 9840760766
Day 3 21/6/2023 Wednesday	Activity III: Demonstration on CANVA AI Tools Dr. P. Subashini , Programme Co-ordinator and Dr. Janani , Research Associate , DST-CURIE-AI , Centre for Machine Learning and Intelligence, Avinashilingam Institute, Coimbatore Email : subashini_cs@avinuty.ac.in Ph : 9442271971	AI unleashed: Exploring the Foundations and Applications Dr. J. Jayapriya , Christ University , Bengaluru Email : jayapriya.j@christuniversity.in Ph : 9443193549	Pioneering Tools in AI Dr. J. Jayapriya , Christ University , Bengaluru Email : jayapriya.j@christuniversity.in Ph : 9443193549	AI for Academic Research Dr. J. Jayapriya , Christ University , Bengaluru Email : jayapriya.j@christuniversity.in Ph : 9443193549

Date/Day	Session I 9.30 am to 11 am	Session II 11.15 am to 12.45 pm	Session III 1.30 pm to 3 pm	Session IV 3.15 pm to 4.45 pm
Day 4 22/6/2023 Thursday	GPT Powered ChatBot - support for Instructors and Students Dr. Beto Lucena & Team, Centre for Extended Learning, University of Waterloo Email :beto.lucena@uwaterloo.ca	Activity – IV Demonstration of ChatGPT Dr. P. Subashini , Programme Co-ordinator and Ms. Mohana, Ph.D. Research Scholar, Avinashilingam Institute, Coimbatore Email : subashini_cs@avinuty.ac.in Ph : 9442271971	Activity – V ChatGPT for Teachers Dr. P. Subashini , Programme Coordinator and Ms. Mohana, Ph.D. Research Scholar, Department of Computer Science, Avinashilingam Institute, Coimbatore Email : subashini_cs@avinuty.ac.in Ph : 9442271971	Activity – VI ChatGPT for Learners Dr. P. Subashini , Programme Coordinator and Ms. Mohana, Ph.D. Research Scholar, Department of Computer Science, Avinashilingam Institute, Coimbatore Email : subashini_cs@avinuty.ac.in Ph : 9442271971
Day 5 23/6/2023 Friday	Ethical considerations and Responsive AI in Education Prof.Anand Paul The School of Computer Science and Engineering, Kyungpook National University	Hands-on workshop on Augmented Reality Dr. P. Subashini, Programme Coordinator and Ms. Aishwarya, a Ph.D. Research Scholar Avinashilingam Institute, Coimbatore. Email : subashini_cs@avinuty.ac.in Ph : 9442271971		
24/6/2023 (Saturday) & 25/6/2023 (Sunday)				
Day 6 26/6/2023 Monday	What is Augmented Reality? Ms Gayathri Shri, Scopik Edutech Ltd, Chennai.	Face effects using AI Ms Gayathri Shri, Scopik Edutech Ltd, Chennai.	User Interface Workflow Ms Gayathri Shri, Scopik Edutech Ltd, Chennai.	Augmented Reality Case Study Ms Gayathri Shri, Scopik Edutech Ltd, Chennai.
Day 7 27/6/2023 Tuesday	Face AR eyewear and headwear try-on Ms Gayathri Shri, Scopik Edutech Ltd, Chennai	Animated Objects in the Real World Ms Gayathri Shri, Scopik Edutech Ltd, Chennai	Augmented Reality Portals Ms Gayathri Shri, Scopik Edutech Ltd, Chennai	Voice User Interface Ms Gayathri Shri, Scopik Edutech Ltd, Chennai

Date/Day	Session I 9.30 am to 11 am	Session II 11.15 am to 12.45 pm	Session III 1.30 pm to 3 pm	Session IV 3.15 pm to 4.45 pm
Day 8 28/6/2023 Wednesday	Artificial Intelligence in Education: AI-based Assessment Dr. Vivekanandan Suresh Kumar, Associate Dean - Research & Innovation, Professor - Computing & Information Systems, Athabasca University.	Responsible AI Dr P. Subashini, Professor of Computer Science, Avinashilingam Institute, Coimbatore Email : subashini_cs@avinuty.ac.in Ph : 9442271971	Crowdsourcing in Education Dr. P. Subashini , Programme Coordinator and Dr T.T. Dhivyaprabha Research Associate, DST-CURIE-AI, Centre for Machine Learning and Intelligence, Avinashilingam Institute, Coimbatore. Email : subashini_cs@avinuty.ac.in Ph : 9442271971	Mulsemmedia in Education Dr. P. Subashini, Programme Co-ordinator, Avinashilingam Institute, Coimbatore. Email : subashini_cs@avinuty.ac.in Ph : 9442271971
Day 9 29/6/2023 Thursday	Enhancing Student Success with AI-Powered Learning Analytics Prof. Anand Paul, School of Computer Science and Engineering, Kyungpook National University	Digital Transformation: AI for Everyone Dr. Vinay, Christ University, Bengaluru. Email : Vinay.m@christuniversity.in Ph : 9986388234	Multi-sensorial eBooks Prof. George Ghinea, Brunel University, London, U.K	Digital AI Tools and Techniques for Teaching and Learning Dr Vinay, Christ University, Bengaluru. Email : Vinay.m@christuniversity.in Ph : 9986388234
Day 10 30/6/2023 Friday	AI for Educators Dr. R. Karthikeyan, Head, Dept. of AI & DS, NGP College, Coimbatore Email : drkarthikeyan@drngpit.ac.in Ph : 9092614159	Digital AI tools and Techniques for Teaching and Learning Dr. Vinay, Christ University, Bengaluru. Email : Vinay.m@christuniversity.in Ph : 9986388234	Valedictory Session Dr. Buddha Chandrashekar ,Chief Coordinating Officer, AICTE,MOE, Newdelhi. Email : chandrashkar.buddha@gmail.com Ph : 9740169197	

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**AIU – Avinashilingam Institute –
Academic and Administrative Development Centre
(AIU-AI-AADC)
&
Centre for Machine Learning and Intelligence
Jointly Organizes**

**IV Short Term Capacity Building Programme
on
Artificial Intelligence
in Education**

19.06.2023 to 30.06.2023

Invited Talks
Case Studies
Hands-on Sessions
Activities

Mode : Online

ABOUT THE INSTITUTE

Avinashilingam Institute for Home Science and Higher Education for Women - the epitome of higher education is one of the premier institutions in India well known for its commitment towards the empowerment of women through value based and holistic education. The institute follows educational ideals of Sri Ramakrishna, Holy Mother Sri Saradamani Devi, Swami Vivekananda and Mahatma Gandhiji. The institute is one of the significant contributions of Padma Bhushan, Dr. T. S. Avinashilingam, an illustrious educationist, freedom-fighter and Gandhian and Dr. Rajammal P. Devadas, the world- renowned nutritionist.

The Institute had its humble beginning in the year 1957 as Sri Avinashilingam Home Science College for Women and has been conferred the Deemed to be University by MHRD in 1988. Few of the recent accolades of the Institute includes: A++ with CGPA of 3.65/4 by NAAC; 84th Rank in NIRF, 5th Rank under the category of 'University & Deemed to be University (Govt. & Govt. Aided) Technical' in ARIIA –2021.

Presently, the institution is progressing towards 'beyond-excellence' under the able guidance and leadership of Dr.T. S. K. Meenakshi Sundaram, Managing Trustee and Chancellor, Dr. V. Bharathi Harishankar, Vice Chancellor and Dr. S. Kowsalya, Registrar.

ASSOCIATION OF INDIAN UNIVERSITIES – A BRIEF INTRODUCTION

Association of Indian Universities (AIU) is an apex inter university representative body of universities and other higher education institutions in the country. Established in 1925 as the Inter University Board (IUB) of India, it acquired its legal status as a registered society in 1967 under the Societies Registration Act 1860 and was rechristened as Association of Indian Universities (AIU) in 1973. AIU is the second oldest university association in the world next to the Association of Commonwealth Universities which was established in 1913.

It has the distinct feature of having the largest network of universities and other HEIs under its ambit with 921 members (907 Indian & 14 Associate Members of Foreign Countries). The membership of AIU includes all types of universities e.g., Conventional Universities, Open Universities, Deemed to be Universities, State Universities, Central Universities, Private Universities and Institutes of National Importance.

In addition to Indian Universities, Universities / Institutes from Bangladesh, Bhutan, Republic of Kazakhstan, Malaysia, Mauritius, Nepal, Thailand, United Arab Emirates and United Kingdom are its Associate Members. Since its inception AIU has played a very significant role in the development of Education in the Country.

Some of the eminent scholars and visionary leaders like Dr Sarvepalli Radhakrishnan, Dr Shyama Prasad Mukherjee, Dr Zakir Hussain, Sir. A. L. Mudaliar have given leadership to AIU. During such a long journey, AIU has carved a niche for itself by serving the Ministry of Education, Govt. of India as a research-based policy advisory body. Being an apex institution, it constitutes an integral part of all major decision-making committees and commissions in the country

As an academic 'think tank' organization, AIU supports the Government as research-based policy advisory body with the wider mandate of taking up research projects on higher education policy and capacity building. It also acts as a bureau of information on higher education; liaise with international bodies and universities for internationalization of Indian higher education among many others. The Vision of AIU is to emerge as a dynamic service and apex advisory organization in India by undertaking initiatives and programmes which could strengthen and popularize Indian higher education as leading-edge system in the world and promote greater national and international collaboration in Higher Education, Research, Extension, Sports, Youth and Cultural Activities.

It is bestowed with the mission of promoting and representing the Indian Universities and other higher education institutions through strong liaison with the government and National/International organizations, sister associations world over and establish liaison between/among universities through active support, cooperation and coordination among the member universities and all its stakeholders for quality education, research and other academics and extension activities.

ABOUT THE CENTRE

AIU–Avinashilingam Institute - Academic and Administrative Development Centre (AIU-AI-AADC) has been initiated by the institute in association with Association of Indian Universities (AIU) as a step towards training the human resources of higher education institutions. The specific objectives of the centre are:

- Facilitate learning through Performance Improvement Programmes for different groups (Administrators/Teaching Faculty/Non-Teaching staff Research Scholars/Technical Personnel) towards progression based on their career stages.
- Enable continuous learning through rigorous need-based training sessions
- Sensitize stakeholders on recent developments in higher education system in the country and across the world.
- Equip academic / administrative / technical / information personnel with the requisite skills on ICT to handle their work effectively.
- Develop integrity and professional ethics among higher education personnel.
- Strengthen the human capital of the country with right attitude, skills, and knowledge

VISION

To facilitate value-based transition towards changing higher education ecosystem through continuous capacity building.

MISSION

To impart ICT enabled training to human resources of higher education institutions thereby preparing themselves towards Education 5.0.

ABOUT THE PROGRAMME

Education in the 21st century faces a series of challenges, including training in mobile and ubiquitous contexts, and the improvement of the didactic processes associated with online and face-to-face teaching. The world of education is constantly changing. With state-of-the-art technology, new pedagogy and teaching methods are being explored all the time. Artificial Intelligence (AI) is one such domain that has gained popularity in recent years. Various transformations are happening in the educational field, especially in primary and secondary schools. With the development of computing and information processing techniques, artificial intelligence has been widely applied in educational practices such as intelligent tutoring systems, teaching robots, learning analytics, dashboards, adaptive learning systems, human-computer interactions, etc. The new paradigm also uses virtual or augmented reality technologies to enhance the learning experience. AI is considered as a powerful tool to facilitate new paradigms for instructional design, technological development, and education research that are otherwise impossible to develop in the traditional education modes.

This Faculty Development Programme will provide an insight into what Artificial Intelligence is about and how it can be used for education to leverage the learning experience. This programme will offer a critical platform to make the participants aware of theoretical, pedagogical, and computational aspects of AI by proposing three AI paradigms that use AI techniques in varied ways to address the learning and instructional issues in education. Particularly, this programme offers a reference framework for future AI practice, research, and development, that has potential to foster learner-centered learning, human agency, and lifelong learning in the current innovation-driven knowledge age.

OBJECTIVES

- To introduce the major paradigms in AI for Education including Evolution, theoretical foundations, conceptual research, and practical implementations
- To orient participants on AI as a component in the Teaching – Learning and Evaluation process
- To discuss the impact of direct cognitive learning for learners in AI based Education
- To map available technologies with pedagogies and intended research outcomes
- To inculcate the culture of collaborative teaching and learning aimed at iterative development of the learner-centered, data-driven, personalized learning.

TARGET PARTICIPANTS

Deans, Deputy Deans, Directors, College Principals, Heads of the Departments and other Administrative and Academic level officials, Counsellors, Academicians, Edutech Employess and other Tech based Employees.

Mode of delivery

: Online

Duration

: 19.06.2023 to 30.06.2023 (10 Days Programme)

PROGRAMME SCHEDULE

Day: 1, Date: 19.06.2023

- 09.30 am to 11.00 am : Inauguration & Special Address
- 11.15 am to 12.45 pm : Technology for National Education Policy
- 01.30 pm to 03.00 pm : Activity – I Pre-assessment of AI in Education
- 03.15 pm to 04.45 pm : Introduction to AI in Education

Day: 2, Date: 20.06.2023

- 09.30 am to 11.00 am : AI Directed knowledge models and Cognitive Learning
- 11.15 am to 12.45 pm : Intelligent Tutoring systems
- 01.30 pm to 03.00 pm : Activity – II Building a framework for ITS
- 03.15 pm to 04.45 pm : AI supported pedagogical Actions

Day: 3, Date: 21.06.2023

- 09.30 am to 11.00 am : AI supported Learning Environment
- 11.15 am to 12.45 pm : Exploratory Learning Environments
- 01.30 pm to 03.00 pm : Collaboration intervention Model
- 03.15 pm to 04.45 pm : Activity – III Learning Tools

Day: 4, Date: 22.06.2023

- 09.30 am to 11.00 am : Introduction to ChatGPT
- 11.15 am to 12.45 pm : Activity – IV Demonstration of ChatGPT
- 01.30 pm to 03.00 pm : Activity – V ChatGPT for Teachers
- 03.15 pm to 04.45 pm : Activity – VI ChatGPT for Learners

Day: 5, Date: 23.06.2023

- 09.30 am to 11.00 am : Overview for Augmented Reality in Education
- 11.15 am to 12.45 pm : User Interface Development
- 01.30 pm to 03.00 pm : Activity – VII Hands-on workshop on Augmented Reality
- 03.15 pm to 04.45 pm : Activity – VIII Hands-on workshop on Augmented Reality

PROGRAMME SCHEDULE

Day: 6, Date: 26.06.2023

- 09.30 am to 11.00 am** : Activity – IX Augmented Reality Case study
- 11.15 am to 12.45 pm** : Activity – X Augmented Reality Case study
- 01.30 pm to 03.00 pm** : Activity – XI Augmented Reality Case study
- 03.15 pm to 04.45 pm** : Activity – XII Augmented Reality Case study

Day: 7, Date: 27.06.2023

- 09.30 am to 11.00 am** : Learning Analytics
- 11.15 am to 12.45 pm** : Multimodal Learning Analytics research : challenges and solutions
- 01.30 pm to 03.00 pm** : Activity – XIII Learning multimodal analytics
- 03.15 pm to 04.45 pm** : Designing a Multimodal Dashboard for Collaborative Analytics

Day: 8, Date: 28.06.2023

- 09.30 am to 11.00 am** : Utilizing crowdsourcing and machine learning in education
- 11.15 am to 12.45 pm** : Educational application tools using crowdsourcing and machine learning
- 01.30 pm to 03.00 pm** : Activity – VII , Crowdsourcing Tools
- 03.15 pm to 04.45 pm** : Automated Programming Assessment (APA) System

Day: 9, Date: 29.06.2023

- 09.30 am to 11.00 am** : Mulsemmedia in Education
- 11.15 am to 12.45 pm** : Multi-sensorial eBooks
- 01.30 pm to 03.00 pm** : Activity – VII Demonstration of Mulsemmedia in Education
- 03.15 pm to 04.45 pm** : Technology Enhanced Learning

Day: 10, Date: 30.06.2023

- 09.30 am to 11.00 am** : AI for Educators
- 11.15 am to 12.45 pm** : CANVA - Demonstration
- 01.30 pm to 03.00 pm** : Activity – VIII Post Assessment of AI in Education
- 03.15 pm to 04.45 pm** : Valediction and Feedback

LIST OF RESOURCE PERSONS

- ❖ **Dr. BASHEERHAMAD SHADRACH**, Director, Commonwealth Educational Media Center of Asia.
- ❖ **Prof. S.P. THYGARAJAN**, Chancellor, Avinashilingam Institute, Coimbatore.
- ❖ **Prof. V. BHARATHI HARISHANKAR**, Vice Chancellor, Avinashilingam Institute, Coimbatore.
- ❖ **Prof. ALEKSANDAR PETROVIC**, Vice President and Faculty of Philology, University of Belgrade, Serbia.
- ❖ **Dr. K. MURUGAN**, Former Registrar Tamil Nadu Open University.
- ❖ **Dr. VIVEKANANDAN SURESH KUMAR**, Associate Dean- Research and Innovation, Professor- Computing & Information Systems, Athabasca University.
- ❖ **Dr. BUDDHA CHANDRASHEKAR**, Chief Coordinating Officer, AICTE
- ❖ **Dr. R. KARTHIKEYAN**, Head, Department of AI & DS, NGP College, Coimbatore.
- ❖ **Dr. P. SUBASHINI**, Coordinator, Centre for Machine Learning and Intelligence Professor of Computer Science, Avinashilingam Institute, Coimbatore.
- ❖ **Dr. J. JAYAPRIYA**, Christ University, Bengaluru.
- ❖ **Dr. BETO LUCENA & TEAM**, Center for Extended Learning, University of Waterloo.
- ❖ **Prof. ANAND PAUL**, The School of Computer Science and Engineering, Kyungpook National University.
- ❖ **MS. GAYATHRI SHRI**, Scopik Edutech Ltd, Chennai
- ❖ **Dr. VINAY**, Christ University, Bangalore.
- ❖ **PROF GEORGE GHINEA**, Brunel University, London, U.K

REGISTRATION

REGISTRATION LINK : <https://forms.gle/xQmfutPeEbm7cpdd7>

FEE : Rs. 2,500

PAYMENT DETAILS

BANK ACCOUNT DETAILS

Account Name : Avinashilingam Institute for Home Science and Higher Education for Women

Name of the Bank : Indian Bank

Bank Account Number : 917248759

IFSC Code : IDIB000A005

AI ADVISORS

Dr. T. S. K. MEENAKSHISUNDARAM, Managing Trustee & Chancellor

Dr. V. BHARATHI HARISHANKAR, Vice Chancellor

Dr. S. KOWSALYA, Registrar

AIU ADVISORS

Dr. PANKAJ MITTAL, Secretary General, AIU

Dr. AMARENDRA PANI, Joint Director & Head, Research Division, AIU

PROGRAMME COORDINATOR

Dr. P.SUBASHINI,

Coordinator, Centre for Machine Learning and Intelligence

Professor of Computer Science

Avinashilingam Institute for Home Science and Higher Education for Women

e-mail ID: subashini_cs@avinuty.ac.in

REACH US AT:

Dr. K. RAMYA

Nodal Officer

AIU - Avinashilingam Institute- Academic &

Administrative Development Centre (AIU-AI-AADC)

Avinashilingam Institute for Home Science and

Higher Education for Women, Coimbatore – 641 043,

Tamil Nadu, INDIA.

e-mail ID : aadc@avinuty.ac.in

Mobile : 8072202927

Special thanks to:

AI Advisors

- **Dr. T. S. K. Meenakshisundaram, Managing Trustee & Chancellor**
- **Dr. V. Bharathi Harishankar, Vice Chancellor**
- **Dr. S. Kowsalya, Registrar**

AIU Advisors

- **Dr. Pankaj Mittal, Secretary General, AIU**
- **Dr. Amarendra Pani, Joint Director & Head, Research Division, AIU**

We extend our heartfelt gratitude to all the Invited Guests, Resource Persons, HEI's, Coordinators, Committee Members, Technical staff for their unwavering support!

We sincerely thank each attendee for their participation and enthusiasm!

Welcoming you all again in the future!



Dr. K. Ramya

Nodal Officer, AIU-AI-AADC

**AIU - Avinashilingam Institute- Academic & Administrative Development Centre
Avinashilingam Institute for Home Science and Higher Education for Women
Coimbatore – 641 043, Tamil Nadu, India.**

e-mail ID : aadc@avinuty.ac.in

Mobile : 8072202927