

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
Second Short Term Capacity Building Program
on**

Adaptive Learning: Personalized Education with AI

**Organised
by**

**AIU – Avinashilingam Institute – Academic and
Administrative Development Centre (AIU-AI-AADC)**

01.04.2024 - 05.04.2024

Mode : Online

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



Second Short Term Capacity Building Program on

Adaptive Learning: Personalized Education with AI

PROGRAMME COORDINATORS

Dr. H. Indu

Dean, School of Education

Professor, Department of Education

Avinashilingam Institute for Home Science and Higher
Education for Women, Coimbatore – 641 043

Dr. P. Subashini

Coordinator, Centre for Machine Learning and Intelligence

Professor of Computer Science

Avinashilingam Institute for Home Science and Higher
Education for Women, Coimbatore – 641 043



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



AIU-AI-AADC

Second Short-Term Capacity Building Programme for the year 2024 on

‘Adaptive Learning: Personalized Education with AI’

01.04.2024 to 05.04.2024 (5 Days) - Online Mode

CONTENTS

S.No	Particulars	Page. No
1	Report	1-25
2	Participants List	25-26
3	Sample Certificate	26
4	Working Schedule	27-28
5	Brochure	29-36



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. CGPA 3.65/4 Category 1 by UGC

Coimbatore - 641 043, Tamil Nadu, India

AIU-AI-AADC

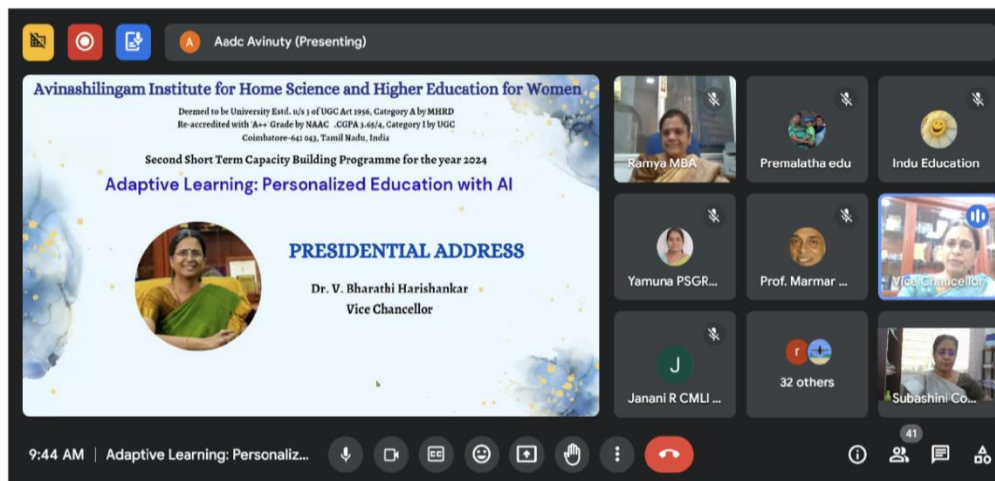
Report on Second Short-Term Capacity Building Program for the year 2024 on

Adaptive Learning: Personalized Education with AI

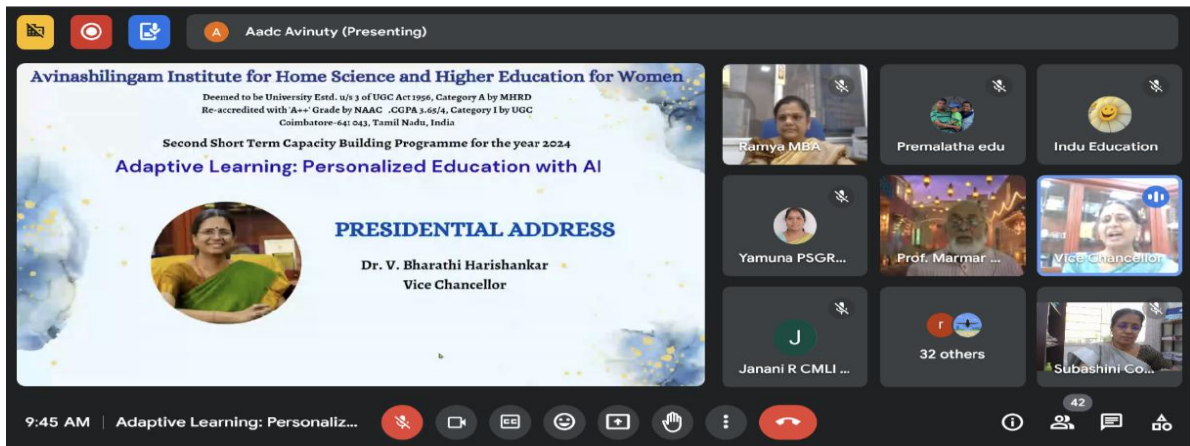
01.04.2024 - 05.04.2024

The AIU-AI-AADC (Association of Indian Universities - Avinashilingam Institute - Academic & Administrative Development Centre), Department of Education and Centre for Machine Learning and Intelligence and Department of Education jointly organized its Second Short-Term Capacity Building Program on Adaptive Learning: Personalized Education with AI for 2024 from 1st to 5th April 2024.

The program aimed to familiarize participants with adaptive learning's fundamentals and applications in higher education, explore AI-driven tools, design personalized learning experiences, analyze data for decision-making, and foster collaboration among HEIs. Thirty-two participants from diverse institutions attended online sessions, focusing on integrating adaptive learning into curricula to enhance educational outcomes.

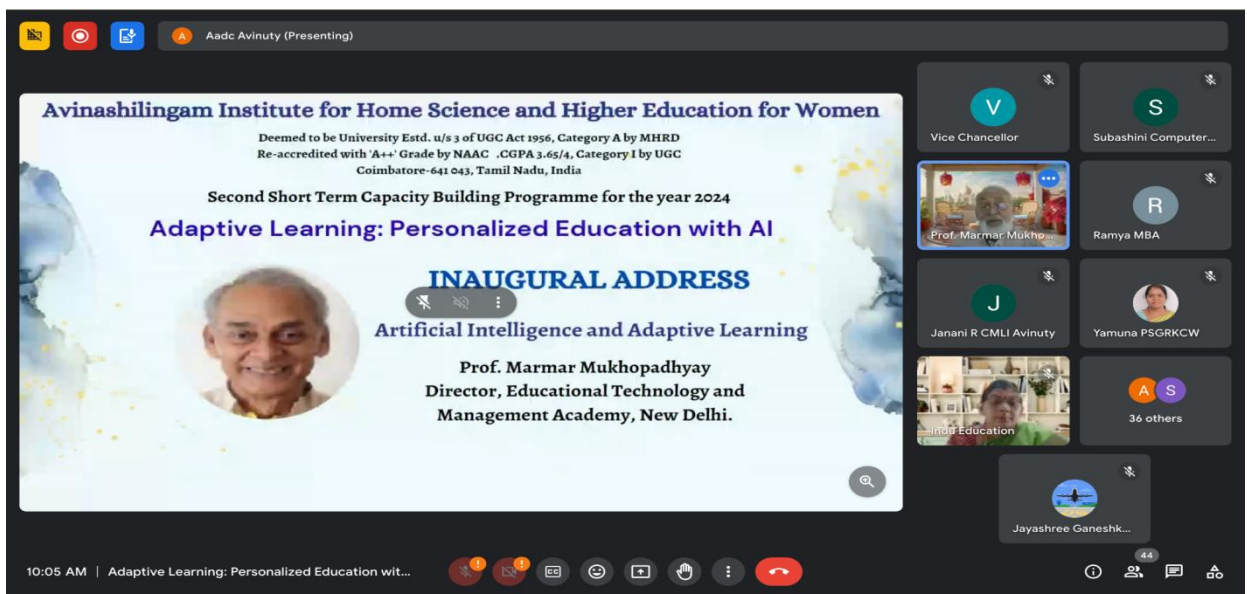


The program began with a prayer, followed by Dr. K. Ramya, Nodal Officer, AIU-AI-AADC, welcoming the gathering. The presidential address was given by Dr. V. Bharathi Harishankar, Vice Chancellor of Avinashilingam Institute for Home Science and Higher Education for Women, who welcomed the guest speakers and the participants to the 5-day workshop – the Second Short-Term Capacity Building Programme for the year 2024 on the topic of Adaptive Learning: Personalized Education with AI. During her speech, she emphasized the importance of personalized learning in classrooms and encouraged the participants to implement adaptive learning in the age of AI. The brief for the 5-day event was presented by Dr. P. Subhashini, programme coordinator. Finally, the vote of thanks was presented by Dr. H. Hindu, programme coordinator.



Day 1: 01.04.2024 Session 1

Inaugural address
 Prof. Marmar Mukhopadhyay
 Director, Educational Technology and Management Academy, New Delhi



Prof. Marmar Mukhopadhyay is a director of educational technology and management. In his session, he discussed the importance of AI in education and described how technology has evolved to adapt and make human life easier by automating day-to-day activities. During the session, he mentioned that technology and AI has to be used with human intelligence. The session delved deeper into the basic definitions of learning and explanation of Bloom's Taxonomy which is used in academic settings. The session also included some thought provoking ideas. During the session Prof. Mukhopadhyay explained that humans learn throughout their life and each human is different in nature leading to adaptivity. The session included the aspects of adaptive learning which involved adaptive assessment, adaptive content and adaptive instruction. Further, the session explored the benefits of adaptivity for students and teachers. It also helped the participants understand that the technology is continuously evolving and humans have to adapt to different evolutions of it. Prof. Mukhopadhyay gave many examples and analogies leading to an interesting session for the participants.

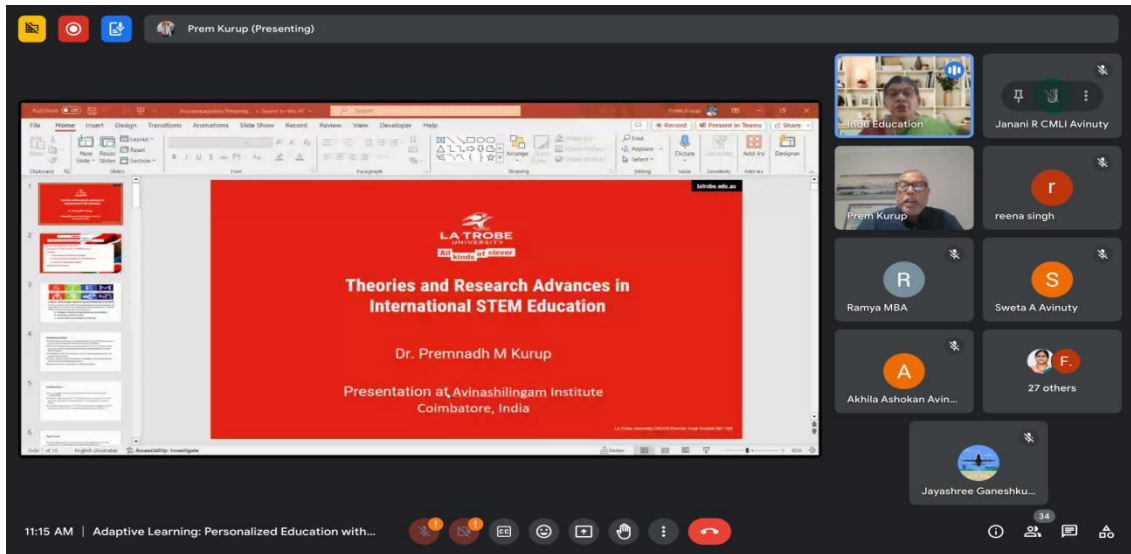
To conclude he emphasized that the future of learning should be personalized to every students' needs and goals.

Take away from the session:

- Adaptive Learning and Taxonomies
- Future Learning and AI technologies
- Aspects of adaptive learning
- Evolution of technologies for personalized learning

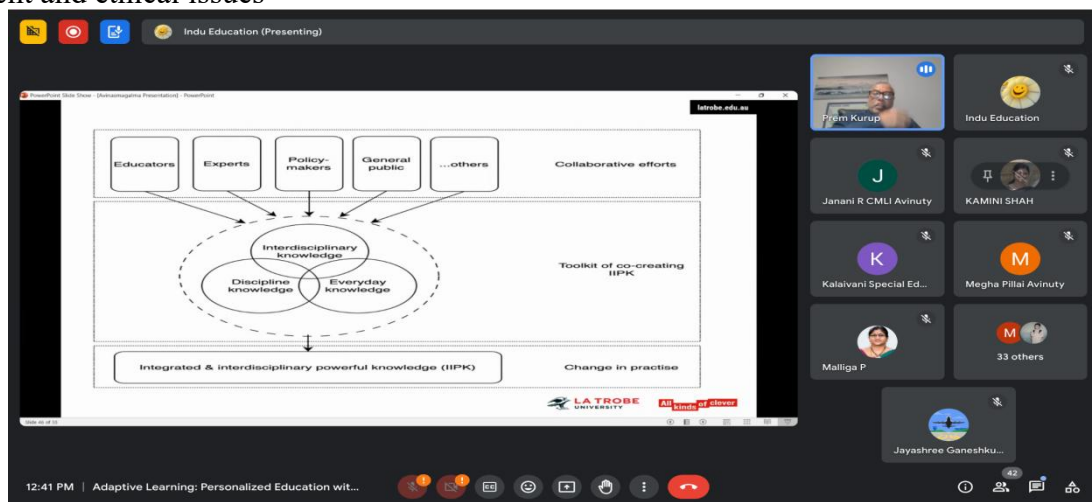
Day 1: 01.04.2024 Session 2

AI Technologies in Higher Education Dr.Premnadh Madhava Kurup Faculty of Education La Trobe University



The session discussed the STEM education system, its theories and research advances. The speaker believed that STEM (Science, Technology, Engineering, and Mathematics) education has to start from the elementary school to reap the benefits of the program. STEM Education connects real world experience to classroom learning so that students can understand their book material. In the session, he discussed integrating STEM education in middle school and high school curriculum as well. Countries like China, already has STEM education in their curriculum and they have separate schools and examinations. He highlights STEM education leads to better employment opportunities as humanity in general is shifting towards knowledge based economy. Further, skills needed for 21st century are discussed.

The speaker provided examples of Nobel Prize winners of Chemistry in 2021 and Physiology Medicine in 2005 to describe the importance of experiential learning. Further, evidence based learning gives opportunities for students to experience the subjects rather than reading about it in a textbook which is much more beneficial. The purpose of STEM education which leads to innovation and relevance of it in different countries are discussed while the Indian Education System lacks it. Additionally he also discusses the AI in education, the risks of AI tools like ChatGPT and benefits of AI for Facilities management and ethical issues



He concludes by insisting that the education system must be a knowledge based approach and have to interrelate between practical learning and book education and combine it for innovation.

Take Away from the session:

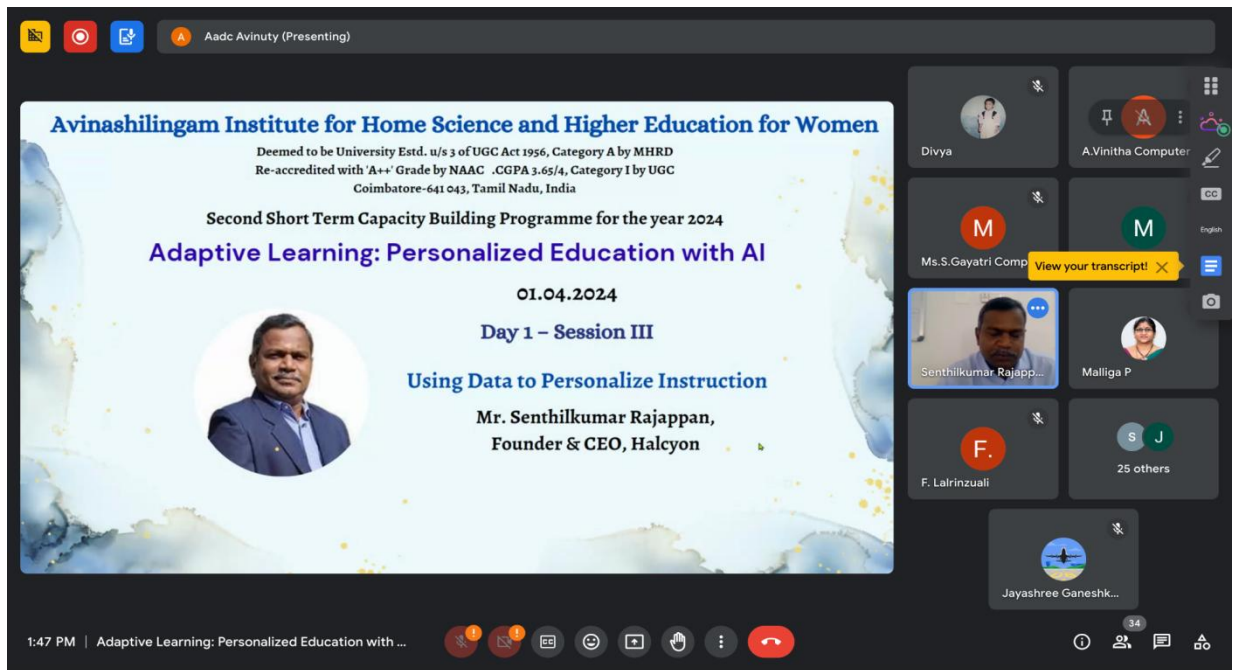
- STEM education and its purpose
- Knowledge based learning for innovative minds
- AI tools for Education and Facilities Management
- Holistic approach to improve education system

Day 1: 01.04.2024 Session 3

Using Data to Personalize Instruction

Mr.Senthilkumar Rajappan

Founder & CEO, Halcyon

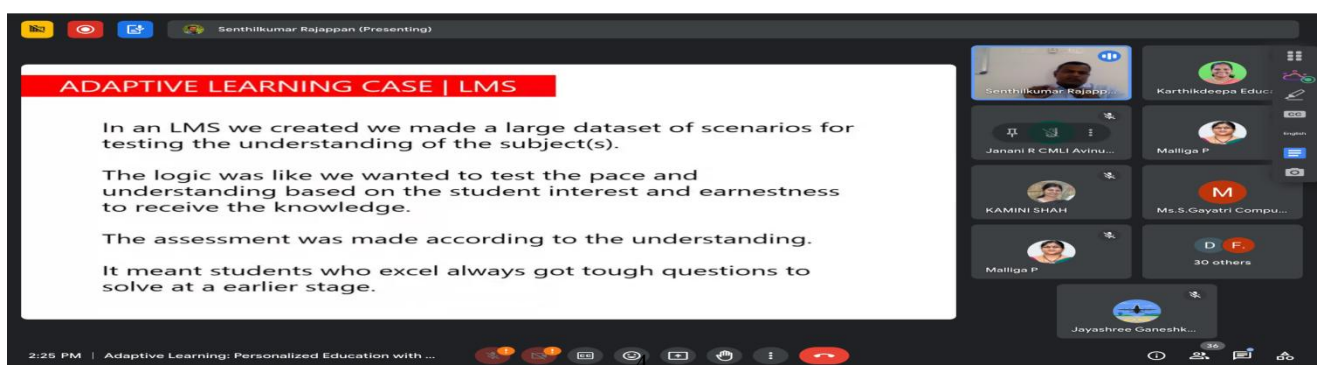


The screenshot shows a Zoom meeting interface. The main content is a presentation slide from Avinashilingam Institute for Home Science and Higher Education for Women. The slide text includes: 'Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD', 'Re-accredited with 'A++' Grade by NAAC .CGPA 3.65/4, Category I by UGC', 'Coimbatore-641 043, Tamil Nadu, India', 'Second Short Term Capacity Building Programme for the year 2024', 'Adaptive Learning: Personalized Education with AI', '01.04.2024', 'Day 1 – Session III', 'Using Data to Personalize Instruction', and 'Mr. Senthilkumar Rajappan, Founder & CEO, Halcyon'. The Zoom interface shows a grid of participants including Divya, A.Vinitha Computer, Ms.S.Gayatri Comp, Senthilkumar Rajappan, Malliga P, F. Lalrinzuali, and Jayashree Ganeshk... The time is 1:47 PM.

Mr.Senthilkumar discusses the data that can be used for personalized instruction that involves a video which explains the importance of personalized learning as people are different and their needs and goals are different. The session discusses creating learner profiles for different people and customizing the learning paths. Further, the attention span of people are decreasing while the understanding nature of humans have also become different to one another, hence the speaker suggests the need for adaptive learning and its features that can personalize for people with different learning styles such as visual, auditory and kinesthetic etc.

The session delves into different types of data produced such as performance data of the students such as academic achievements and scores achieved in assessments, behavioral data such as time spent on tasks, frequency of logging in, navigation pattern and interaction rates, preference data that reflects students' choices regarding their learning experience. Additionally, personalized instruction with the help of AI, its different aspects contributing towards it. The speaker briefly discusses the ethical issues and considerations to be followed while collecting data for personalized data.

He concluded by discussing some of the tools that have AI integration which are available in the market.



The screenshot shows a Zoom meeting interface. The main content is a presentation slide titled 'ADAPTIVE LEARNING CASE | LMS'. The slide text includes: 'In an LMS we created we made a large dataset of scenarios for testing the understanding of the subject(s).', 'The logic was like we wanted to test the pace and understanding based on the student interest and earnestness to receive the knowledge.', 'The assessment was made according to the understanding.', and 'It meant students who excel always got tough questions to solve at a earlier stage.'. The Zoom interface shows a grid of participants including Senthilkumar Rajappan, Karthikdeeps Educ..., Janani R CMLI Avinu..., Malliga P, KAMINI SHAH, Ms.S.Gayatri Compu..., and Jayashree Ganeshk... The time is 2:25 PM.

Take Away from the session:

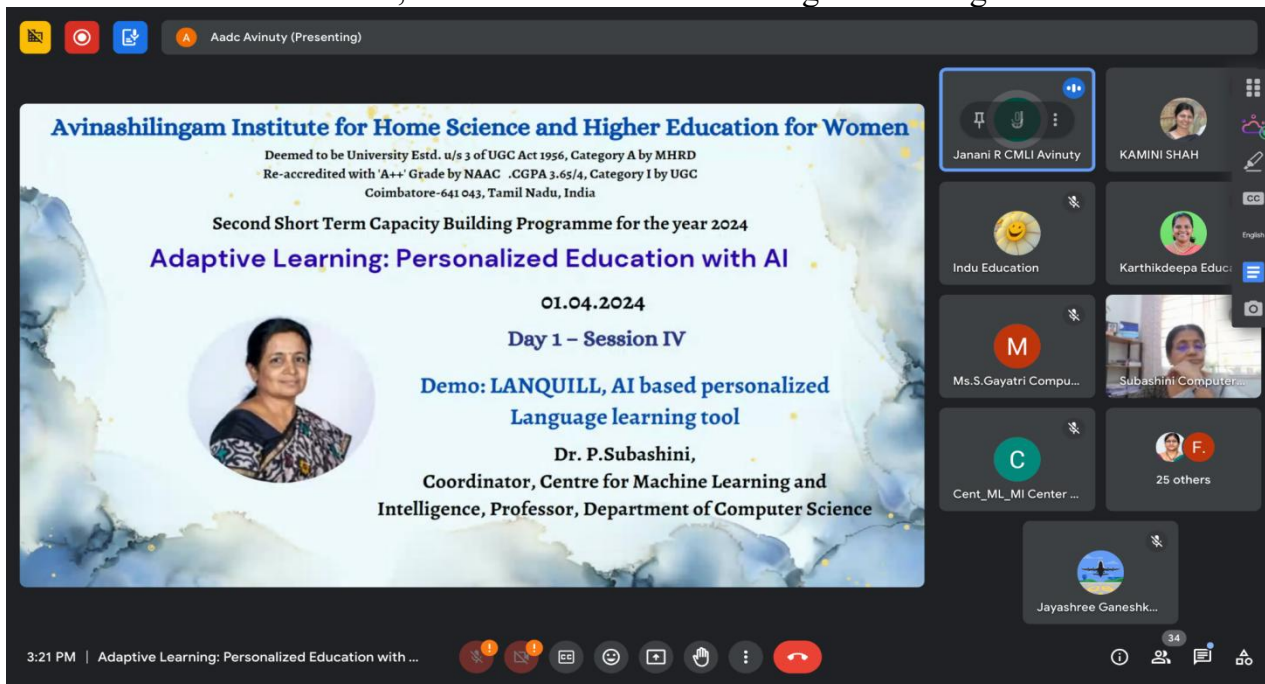
- The need for Personalization
- Types of data involved in personalization
- Leveraging AI tools for personalization
- Use cases of adaptive learning

Day 1: 01.04.2024 Session 4

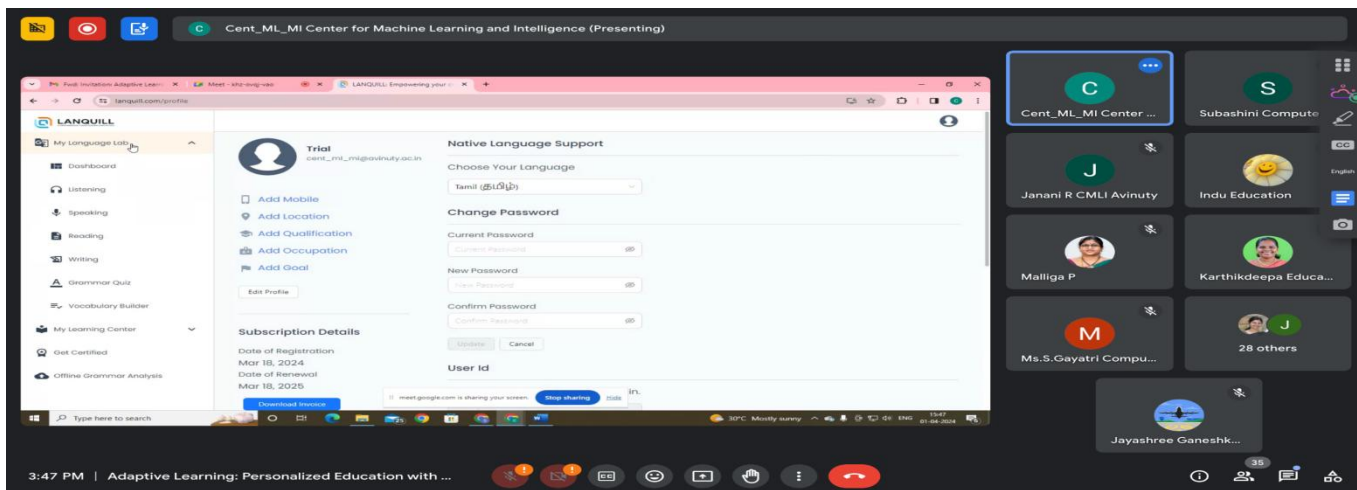
Demo: LANQUILL, AI based personalized language learning tool

Dr.P.Subashini

Coordinator, Centre for Machine Learning and Intelligence



This session discusses the importance of the English language for communication and for academics. Prof. P.Subashini gives a demonstration of an AI based language learning tool – LANQUILL to the participants. The session included a thorough demonstration of the tool which had different features and aspects of English language learning such as reading, writing, speaking and listening. Additionally, this application also contains certification courses that students can opt in for any professional certification. It also has an option to learn English in learners’ native language, it has a set of languages for learners to opt in for translation. This unique feature can help students struggling with understanding basic English to learn easily and faster. Further we can use the tool to learn grammar and new vocabulary as it maintains a dictionary that is unique to each user. The session concluded by demonstrating the administrative usage of LANQUILL that teachers can use to monitor the students progress.



Take Away from the session:

- Importance of English language for communication and for academic purposes
- Demonstration of LANQUILL - AI based personalized language learning tool
- Features of LANQUILL

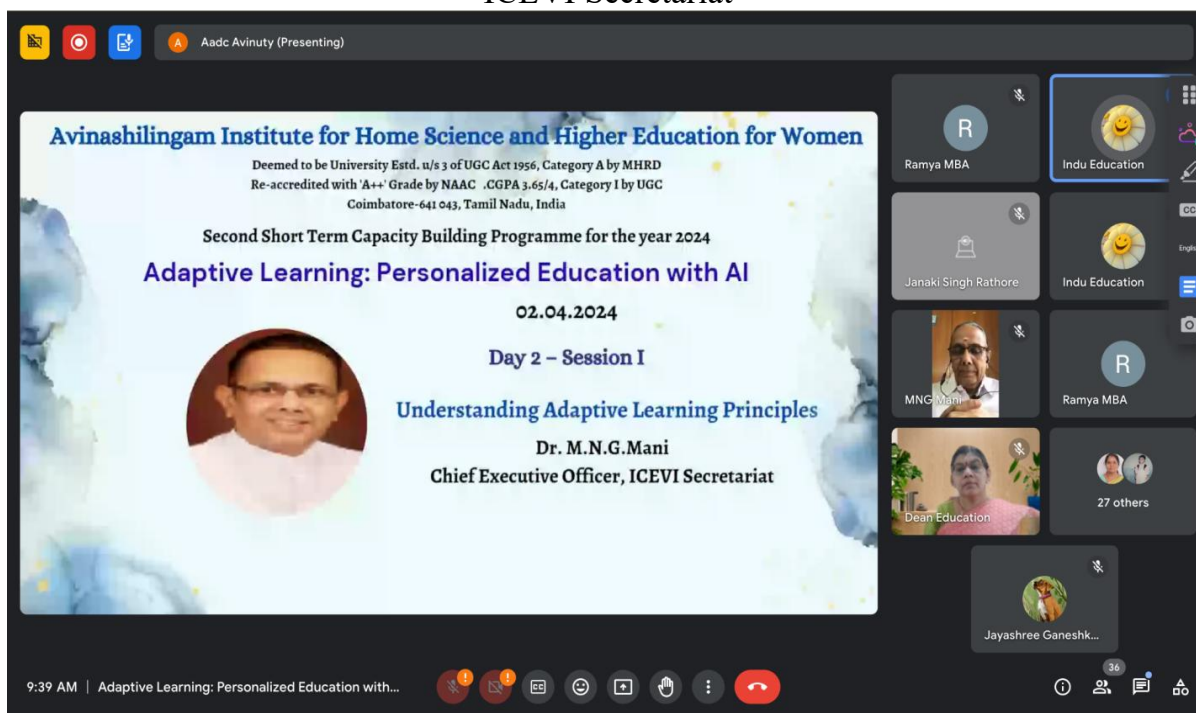
Day 2: 02.04.2024 Session 1

Understanding Adaptive Learning principles

Dr.M.N.G.Mani

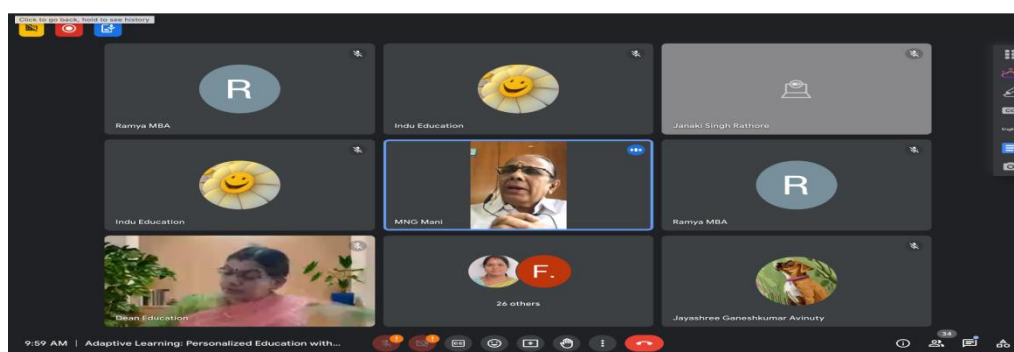
Chief Executive Officer

ICEVI Secretariat



Dr.M.N.G.Mani talks about the need for adaptability by drawing analogies with real-life examples. He believes that the advent of technology has made life easier for future generations. The speaker discusses his life experiences that align with Adaptive learning principles. Further the session emphasizes that adaptive learning should be for the visually impaired across different subjects and urges all the students in a classroom including the differently abled students should have adaptive learning curriculum.

The session elaborates the principles of adaptation for children with special needs and the fundamental ideology/priority behind it was understanding the needs of the student. Dr.MNG.Mani shares his knowledge on different problems that arise while implementing adaptive learning in the curriculum such as time management and also discusses the issue of including adaptability in learning for specially abled students. The session emphasized that students possess knowledge but they lack practical knowledge and it has to improve in the future for students to be more compatible and ready for the real world. To conclude, the speaker warned the participants about the use of technology under guidance.



Take away from the session:

- Life experiences that aligns with Adaptive Learning
- Adaptability for Visually impaired
- Adaptability across different subjects

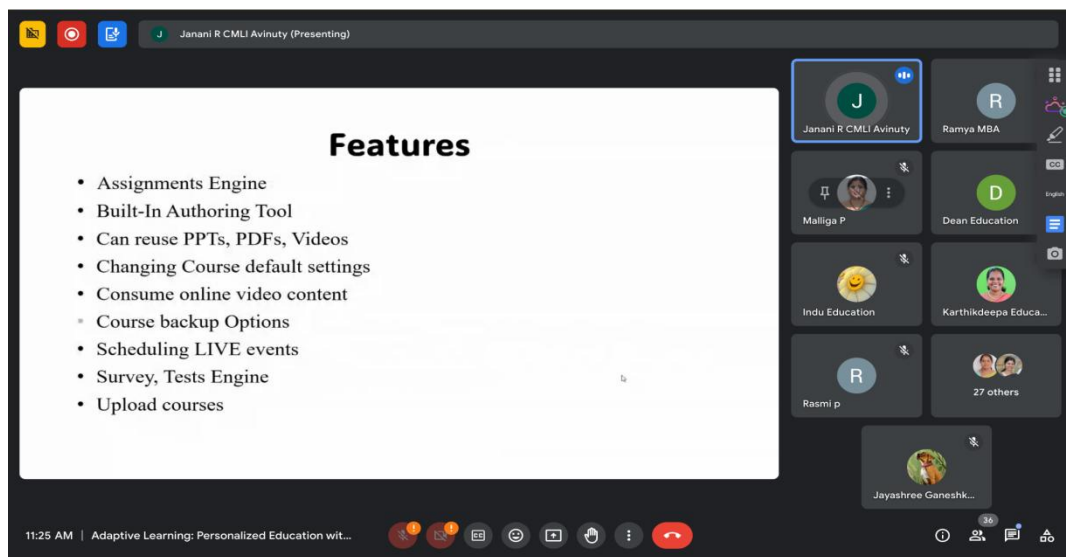
Day 2: 02.04.2024 Session 2

Demo: Exploring Adaptive Learning Platforms

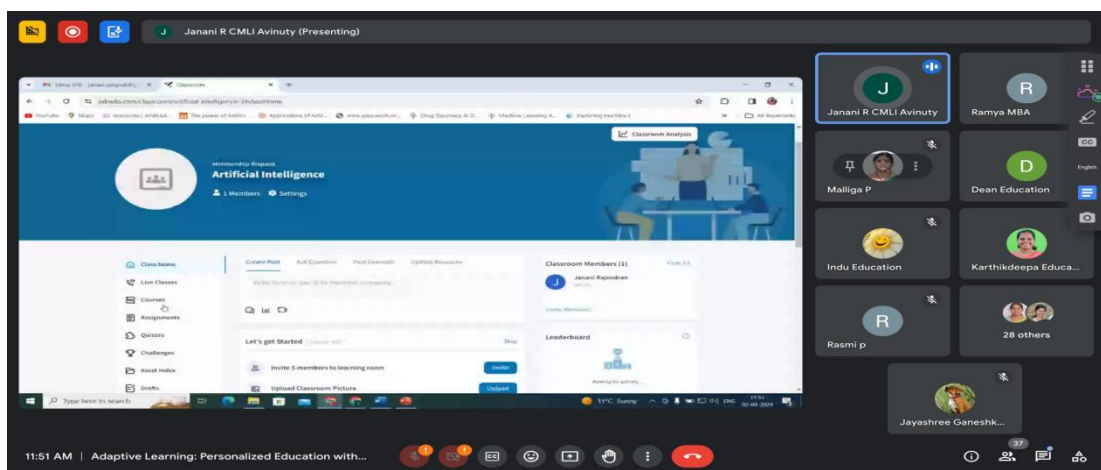
Dr.P.Subashini

Coordinator, Centre for Machine Learning and Intelligence

In the session, Dr.P.Subashini discusses the adaptive learning tool-Edredo and its features that are useful for students and teachers who want to track the students progress were demonstrated in detail. Edredo is a virtual classroom hosted by organizations or teachers who want to host classes online similar to Google Classroom. It has features such as assessments, presentation, surveys, video content, message forums etc. that are useful for educators to host an online class or post a video and encourage online interactions of the students. Some of the features include built-in authoring tool, course backup options, surveys and tests engine that automates quizzes for students, it is also flexible as it allows changing course default settings.



Using this tool, a teacher can host a course in different classrooms and students can join based on their interest towards the subject hosted. The teacher will be able to post videos, articles, polls, quizzes etc. Apart from that, Edredo allows the teacher to monitor the interactions of the students across different elements present in the course including the scores and grades from the quizzes attended by the students. Edredo not only allows recordings to be posted but also be able to host live classes online. This session emphasized that hosting classes online helps the teachers understand the behavior of their students online thus helping them to tailor the content based on their preference.



Take away from the session:

- Demo of Edredo platform for adaptive learning
- Edredo tool and its features

Day 2: 02.04.2024 Session 3

Adaptive Assessment tools and techniques
 Dr.Arindam Bose
 Associate Professor
 Centre of Excellence in Teacher Education
 Tata Institute of Social Sciences (TISS), Mumbai



Dr.Arindam Bose’s session introduced the concept of assessment literacy and discusses cognitive psychology, specifically cognitive dissonance theory with real-life examples. He emphasizes the lack of education system to assess students based on their ability, lack of connectivity in classroom learning and practical learning. His talk focused on adaptivity in terms of learning and assessment based on what the students know. He also spoke about how students' mentality is different from each other by giving examples from his life.

The speaker discusses the purpose of assessments where it determines the readiness for instruction and identifies appropriate forms and levels of classroom instruction. It is also a measure of students’ progress. He further talks about adaptive assessment which relies on Item Response Theory (IRT) of learners that helps in estimating the learners ability to respond to a question with examples like GRE exams being relative to what the student has answered. He says the standardized test should follow IRT whose difficulty must depend on how they have answered the previous questions. The speaker finally concluded by enlightening the participants with Schwab’s Inquiry Levels which consists of 4 levels which tests different aspects of learning promoting adaptability which describes the different ways of assessments that is beneficial to both students and teachers.

Inquiry based Assessments? (Schwab’s inquiry levels)

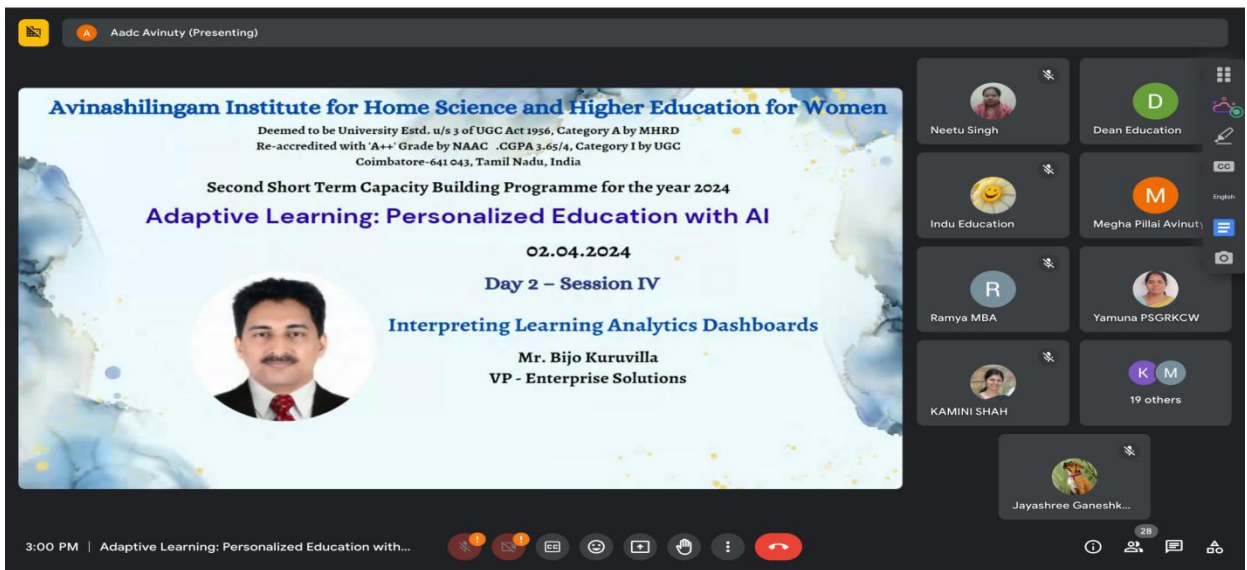
	Question source	Data collection methods	Result interpretation
Level 0 (Confirmation)	Given by teacher	Given by teacher	Given by teacher
Level 1 (Structured)	Given by teacher	Given by teacher	Open to student
Level 2 (Guided)	Given by teacher	Open to student	Open to student
Level 3 (Open)	Open to student	Open to student	Open to student

Take away from the session:

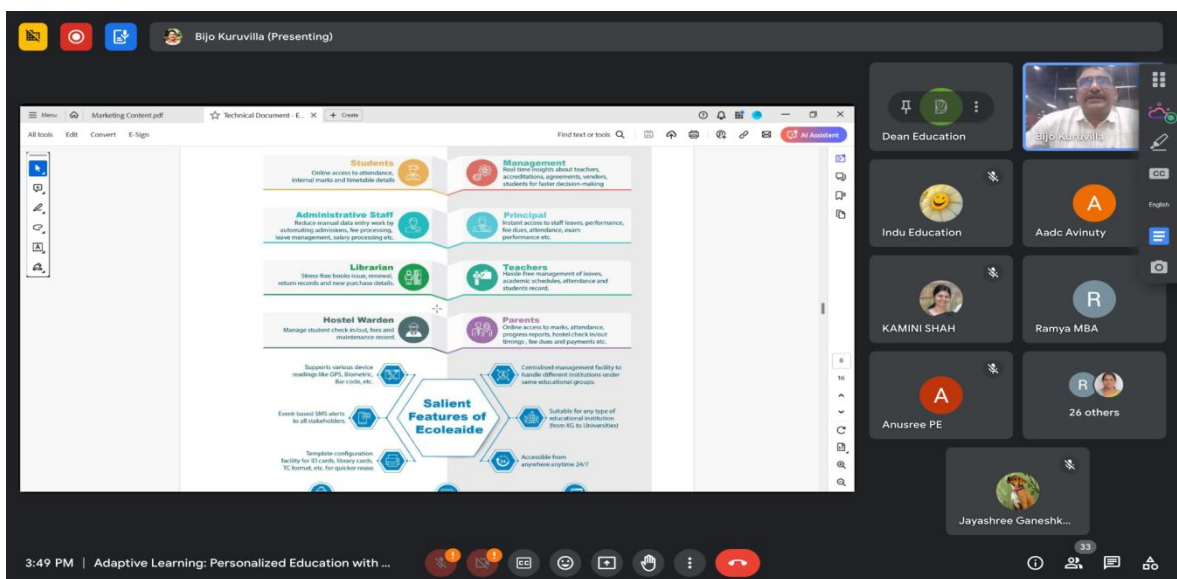
- Understanding the dimensions personalized assessment
- The purpose of evaluation and assessments
- Learning about Inquiry based assessments

Day 2: 02.04.2024 Session 4

Interpreting Learning Analytics Dashboards Mr.Bijo Kuruvilla VP-Enterprise Solutions



Mr.Biju Kuruvilla is part of VP enterprise solution who talks about learning analytics dashboard in academic field and its interpretation. He talks about customer-clientele relationships of his company. He talks about different aspects of learning analytics dashboard such as students, parents and teachers who will be using the platform. He further shows a glimpse of the application. He then briefs about the management perspective of dealing with dashboard for educational settings. He further discussed different analytical reports for the university management system. The session delves deeper into the different personas involved in university management systems and the features from the web portal. Additionally, its features such as different views the software allows such as students view, teachers view, Librarian view, Principal View etc that allows everyone in the University to access information.



Takeaways from the session:

- Learning different perspective of learning analytics dashboard
- Generating reports from the dashboard
- Demonstration of University Management System

Day 3:03.04.2024 Session 1

Pedagogical Approaches for Adaptive Learning Design

Dr.Biju Kadinhiyil

Associate Professor, Central University of Tamil Nadu, Thiruvarur

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide from Avinashilingam Institute for Home Science and Higher Education for Women. The slide title is "Adaptive Learning: Personalized Education with AI" and the date is "03.04.2024". The session is "Day 3 - Session I" on "Pedagogical Approaches for Adaptive Learning Design" by Dr. Biju Kadinhiyil, Associate Professor at Central University of Tamil Nadu, Thiruvarur. The slide also mentions the institute's accreditation: "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-641 043, Tamil Nadu, India". The Zoom interface shows a grid of participants including Dean Education, Biju Kadinhiyil, Indu Education, Sweta A Avinuty, MEENAKSHI P K, Aadc Avinuty, Janaki Singh Rathore, and 14 others. The time is 9:34 AM and the meeting ID is khz-ovqj-vao.

Prof. Biju Kadinhiyil gave his lecture on AI integrated learning, transforming education towards adaptivity. The session covers topics such as adaptive learning systems and models and implementation. The session started with introduction and evolution of Adaptive learning, it covers the history of adaptive learning from researchers who wanted to improve the student retention to achieve higher course outcomes. Some of the researchers have defined adaptive learning by cognitive structure as a mechanism for pedagogical design. The speaker suggested different taxonomies that encourage adaptive learning in the classroom. Apart from that his session emphasized the need for understanding the learning styles of the students to adapt to their needs. The session further delved into different management systems and the usage of its features to achieve its fullest potential. Additionally, the speaker discusses the AI platforms and the potential of educational data mining to benefit learning analytics and adaptive learning.

The session included the scope of learning management systems and the features that are available for teachers and students that paves the way for learning analytics. He emphasized the need to modify the education system to cater to learners for increased adaptivity. Additionally, the speaker provided the participants with different softwares that helps in adaptive learning in classrooms. The session also detailed the pedagogical approach for classroom adaptive learning. To conclude, the speaker discussed adaptive learning models, adaptive learning systems, the strategies to implement adaptive learning, data analytics involved in adaptive learning that was very insightful.

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Pedagogical Approaches for Adaptive Learning Design". The slide is divided into three stages:

- Stage One: Teacher-Centered with Learner Voice and Choice**
The teacher:
 - Understands how each learner learns best and makes instructional decisions based on strengths, challenges, and interests
 - Redesigns classroom environment and universally designs lessons and projects that encourage learner voice and choice
 - Thoughtfully integrates technology into the curriculum to instruct all learners based on how they learn best
- Stage Two: Learner-Centered with Teacher and Learners as Co-Designers**
The teacher and learners:
 - Decide on the skills and strategies for how they access information and express what they know
 - Co-design lessons and projects to include learner voice and choice
 - Know how to choose and use the appropriate tools to support learning
 - Are transitioning to a competency-based system where learners begin to demonstrate mastery of learning
- Stage Three: Learner-Driven with Teacher as Partner in Learning**
Learners:
 - Drive their learning based on their interests, aspirations, and questions
 - Learn at their own pace where they monitor progress with a constant feedback loop
 - Design flexible projects that allow them to use their own voices and choose the best ways to demonstrate mastery in competency-based learning

The Zoom interface shows a grid of participants including Biju Kadinhiyil, Indu Education, Sweta A Avinuty, MEENAKSHI P K, Dr.P.Shanmuga Sundari A..., Yamuna PSGRCW, Aadc Avinuty, and 21 others. The time is 10:54 AM and the meeting ID is khz-ovqj-vao.

Take away from the session:

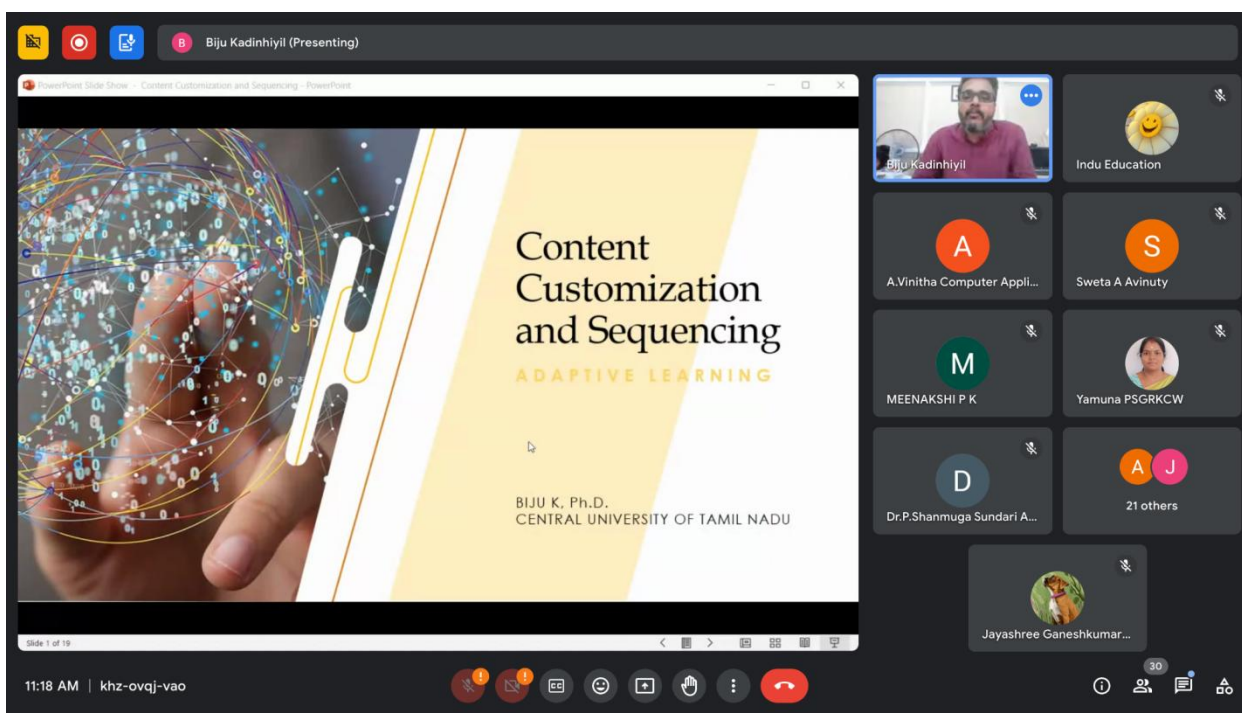
- Evolution of adaptive learning
- Taxonomy supporting adaptive learning in classrooms
- Interrelationship of AI, educational data mining and adaptive learning
- Scope of Learning Management system

Day 3: 03.04.2024 Session 2

Content customization and sequencing

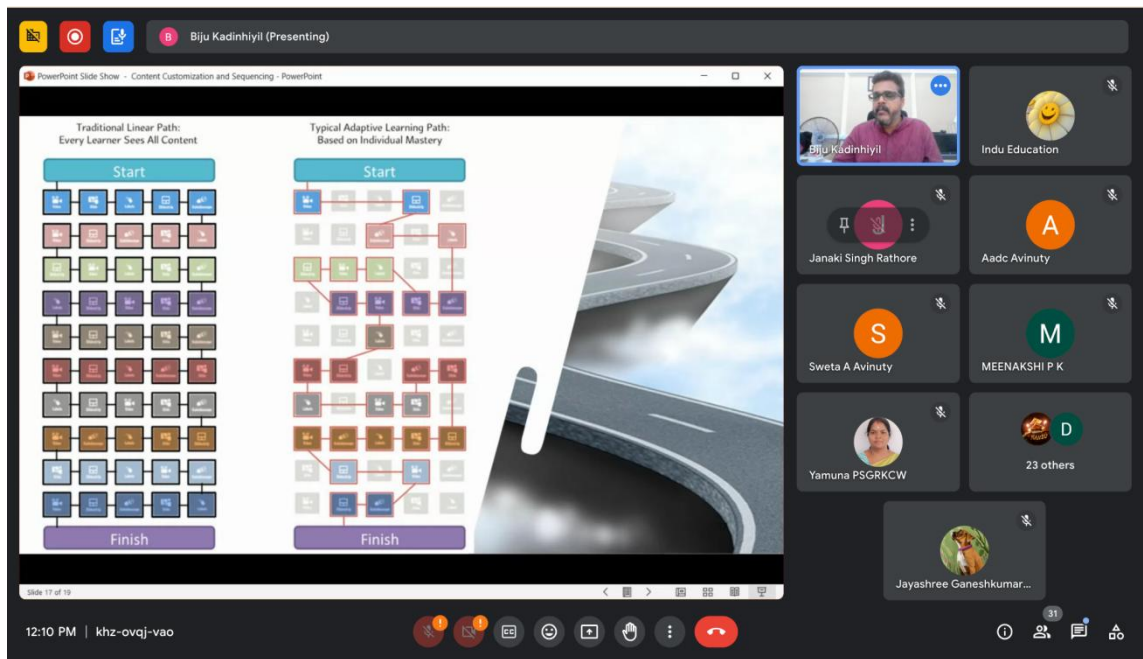
Dr.Biju Kadinhiyil

Associate Professor, Central University of Tamil Nadu, Thiruvavur



The session details about content customization for different learning styles. The session briefs about learning styles such as Visual, Auditory, Reading/Writing and Kinesthetic learners. Further, the speaker spoke about Moodle, an online learning platform that can be used for delivering customized content for adaptive learning. It also allows the administrator to monitor the student interaction across the platform for behavioral data analytics. Moodle can also be used for tailored content and activities for students. Further, the speaker talks about adaptive learning systems and its key aspects - Adaptive Content, Adaptive Assessment and Adaptive Sequence. Additionally, the discussion delved deeper into the process of creating adaptive learning scenarios by identifying small units of knowledge which allows the instructor to break the curriculum into smaller parts to tailor the learning experience to meet the individual learner's needs. The teachers have to develop assessment and feedback that are aligned with the learning objectives. The feedback must help students understand why their answer is correct or incorrect. The process also involves designing the adaptive learning path based on students' pre-assessment performances that takes students' needs into account.

Apart from that, the speaker also discusses the learning object level and sequence level in adaptive learning. Further Prof.Biju draws comparison between standard learning and adaptive learning. To conclude the session, The speaker showed the participants some demonstration of platforms such as SmartSparrow, Carnegie Learning, McGraw Hill Aleks, and finally Moodle for implementing Adaptive Learning and Content personalization. Additionally, he demonstrated the key features of Moodle to the participants

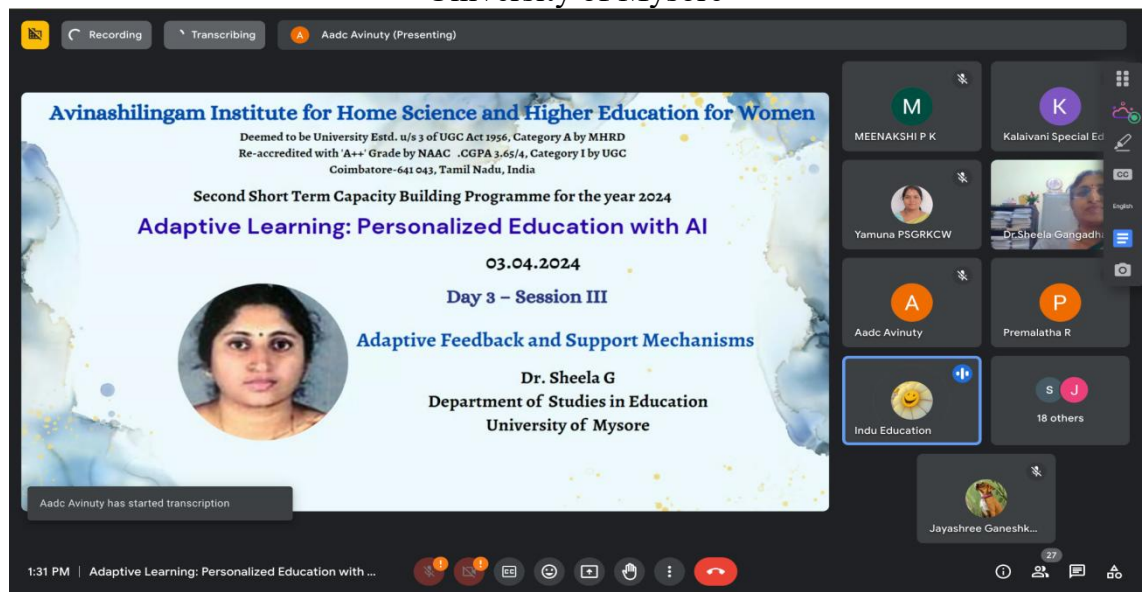


Take Away from the session:

- Aspects of Adaptive Learning Systems
- Process for creating adaptive learning scenarios
- Best Practices for making adaptive learning successful
- Comparison of standard learning and adaptive learning models
- Demonstration of Adaptive Learning platforms

Day 3: 03.04.2024 Session 3

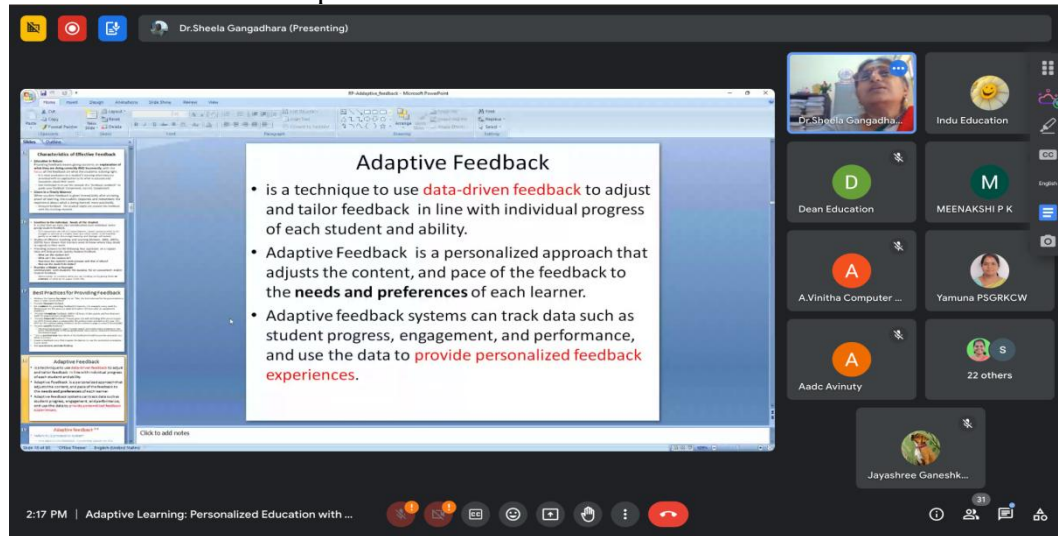
Adaptive Feedback and Support Mechanisms
 Dr. Sheela G
 Department of Studies in Education
 University of Mysore



Dr. Sheela G discusses the feedback mechanism for adaptive learning, The session started with definitions of feedback and different Content types of feedback that can be used for adaptive learning. The discussion explains the necessity of feedback. She emphasizes the need for feedback for constructive suggestions and is essential for student learning. The session highlights the lack of effective feedback for learners to reflect upon their learning and urges the educators to engage learners in constructive feedback. The session highlights the types of feedback useful for online education. Further, the downside of feedback which is communicated poorly was also discussed in the session. Dr. Sheela urges the instructors to have the distinct responsibility of nurturing the students in mind and providing students with essential feedback.

Further, describes the characteristics of effective feedback, and best practices to follow while designing a feedback.

The session delves into the definition of adaptive feedback where it is personalized for every student's goals by adjusting the content, pace of the feedback, type of the feedback. Personalized content will be varied from one student to another. Apart from that, positive reinforcement techniques were also discussed in the session for adaptive feedback. Adaptive feedback must be data driven and has to have sensitivity to context. In conclusion, the session ended with tools useful for adaptive feedback and few adaptive learning tools that could be used for implementing personalized learning. Some of the mechanisms that could help for adaptive learning which were suggested in the session were Gaze Tutor which monitors the eye movement of students in online platforms.



Take Away from the session:

- Definition and the necessity of feedbacks
- Types of feedbacks for online education
- Advantages and disadvantages of feedbacks
- Comparison of Adaptive feedback and traditional feedback
- Tools for adaptive feedback

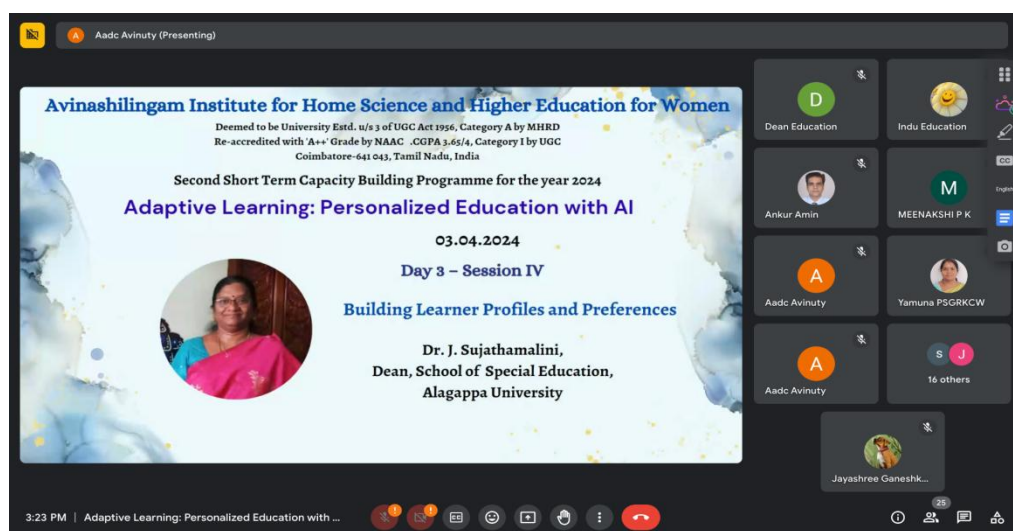
Day 3: 03.04.2024 Session 4

Building Learner Profiles and Preferences

Dr.J.Sujathamalini

Dean, School of Education

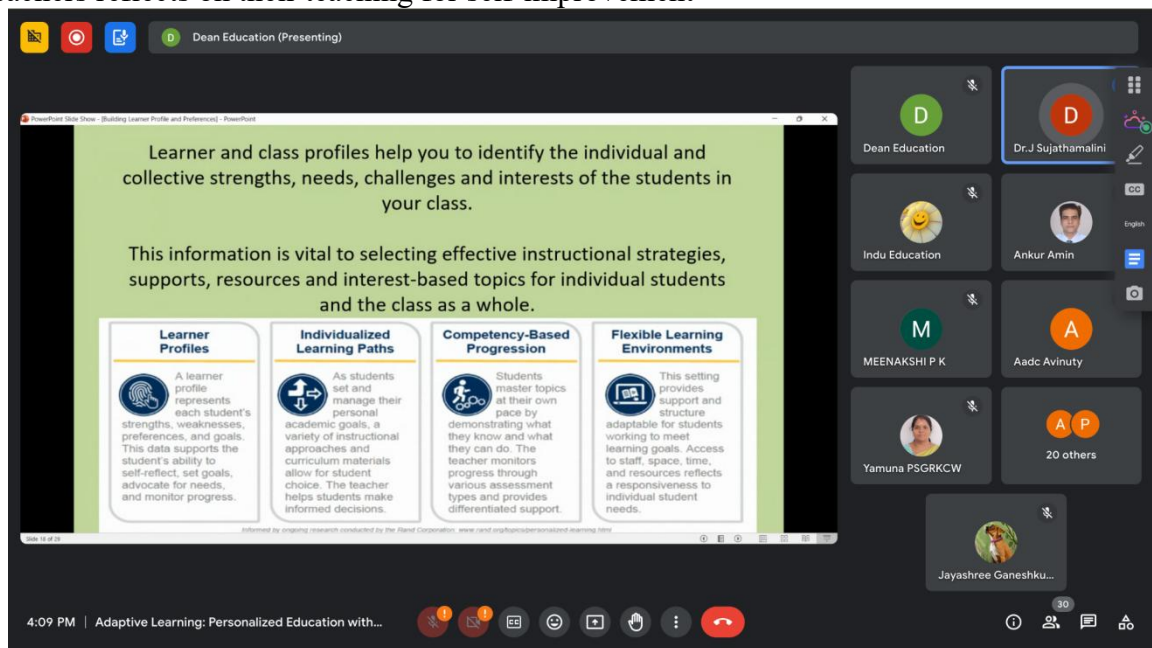
Alagappa University



The session started with definitions of a learner's profile which is the overall view of the student including

their skills, strengths and weaknesses and can make recommendations based on it. The speaker discusses the nature of learners, different attributes of learner profiles, different traits of learner profiles existing. Further, the session discusses the learner preferences where the learner's environment plays an important role and encourages the learner to feel comfortable and move freely in the environment. Additionally, types of learners such as visual, auditory and kinesthetic learners and Kolb's Learning style were discussed. The importance of class profiles that helps in categorizing classroom data, identifying patterns and differences among students, and monitoring student progress were discussed. By monitoring the class profile, it can help the teachers to know their classroom performance as a whole.

Overall, The speaker emphasized the benefits of blended learning where the students can have a flexible environment for learning either online or offline depending on their preference and concluded that the classroom must be inclusive and has to be multimodal instructional materials. The speaker also supported differentiated instruction strategies that caters to different learner profiles and urges the participants to implement it in their classroom. She concluded by saying the importance of reflective teaching practices where teachers reflects on their teaching for self-improvement



Take Away from the session:

- Different attributes of learner profiles
- Holistic approach for learner profiles.
- Importance of class profiles

Day 4: 04.04.2024 Session 1

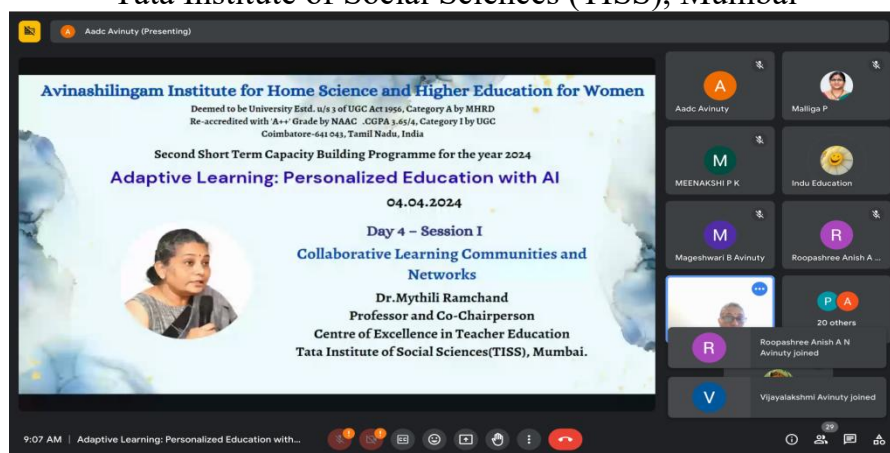
Collaborative Learning Communities and networks

Dr. Mythili Ramchand

Professor and Co-Chairperson

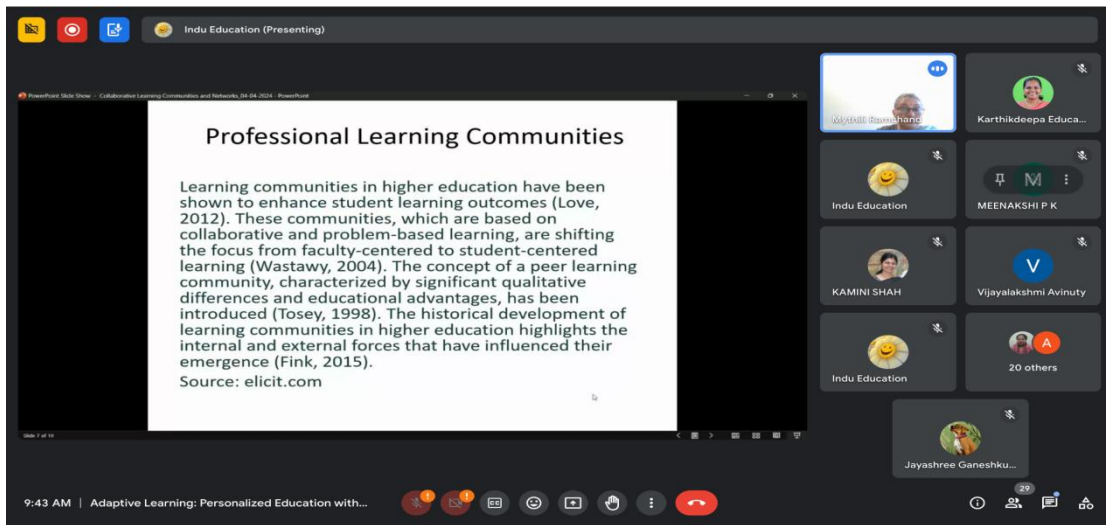
Centre of Excellence in Teacher Education

Tata Institute of Social Sciences (TISS), Mumbai



Dr. Mythili Ramchand discusses the importance of networking and communication that could lead to connecting with like-minded people and future educators. Some of the available networks such as AIU. The lack of networks for educators and researchers in India and the need for it were discussed. Further, the session delves into AI integration for networking such as ChatGPT for LinkedIn which can enhance the users' networking. Further, the importance of learning communities, and characteristics of communities were discussed in detail. Professional learning communities must enhance the student learning outcomes as these communities are based on collaborative and problem-based learning shifting the focus from faculty-centered to student-centered.

Additionally, some of the AI tools such as Elicit which can be used for research, some of its features are to find manuscripts, extract data from papers, analyze concepts from papers which are useful for researchers to integrate and embrace AI to help them.



Take Away from the session:

- Importance of networking
- AI integration for networking
- Importance and characteristics of learning communities
- AI tools helpful for researchers.

Day 4: 04.04.2024 Session 2

Gamification for learning
 Mr. BC. JaiNaresh
 Technical Head, Scopik Edutech, Chennai



Mr. Jainareesh discusses personalization in day to day life across different technological platforms such as Facebook, Instagram, Swiggy etc. Personalization can happen in different ways such as notification, recommendation, suggestions, tips, discounts etc. The session delves into video games which cater to every individual needs by understanding their personality, experience with the game and how quickly an individual solves a problem. To understand the users personality, the game allows the users to customize their character online.

Gamification is the strategic attempt to enhance systems, services, organizations and activities to create experience to motivate and engage the users. The session further discusses the playful design which is an approach to gamify creating engaging and enjoyable experiences for users. The playful design can be created for a classroom environment which makes the kids engaging, proving fun theory.

Additionally, the speaker discusses the theory of multiple intelligence where people learn differently and are unique to one another. Integrating fun theory in education in terms of multiple intelligence results in gamification and different ways of gamification such as reward system, bragging system such as awards and badges, motivation system such as micro and macro goals or challenges and finally, fun elements such as jumping, or killing in the game.

He concluded the session with case studies across the globe that have adapted gamification in different sectors to improve the inclusivity and suggested techniques/tools to implement gamification in educational settings such as SCAMPER, Play Prodigy, Fruit Ninja Academy and LMS Innoactive.

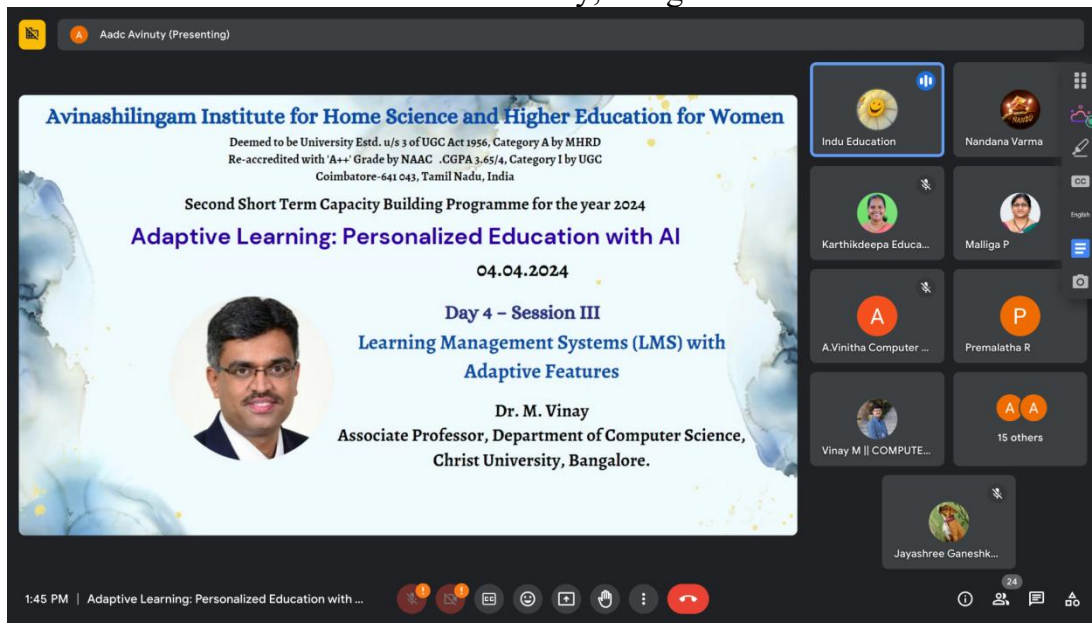
The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Multiple Intelligence". The slide features a circular diagram with "MULTIPLE Intelligences" at the center. The diagram is divided into eight segments, each representing a type of intelligence with an associated icon and label: Musical (MUSIC smart), Bodily - Kinesthetic (BODY smart), Interpersonal (PEOPLE smart), Verbal - Linguistic (WORD smart), Logical - Mathematical (LOGIC smart), Naturalistic (NATURE smart), Intrapersonal (SELF smart), and Visual - Spatial (PICTURE smart). The segments are color-coded: Musical (blue), Bodily - Kinesthetic (purple), Interpersonal (red), Verbal - Linguistic (orange), Logical - Mathematical (yellow), Naturalistic (green), Intrapersonal (grey), and Visual - Spatial (teal). To the right of the slide is a grid of participant video thumbnails. The top row shows "jainareesh bc" (presenting) and "Malliga P". The second row shows "Karthikdeepa Educa..." and "Utthra B 21PHTOF003". The third row shows "Yamuna PSGRKCW" and "Indu Education". The fourth row shows "Premalatha R" and "24 others". The bottom row shows "Jayashree Ganeshk...". The Zoom meeting controls are visible at the bottom of the screen, including a timer showing "12:25 PM" and the title "Adaptive Learning: Personalized Education wit...".

Take Away from the session:

- Ways of personalization in Video games
- Taxonomy of creative experience
- Advantages and disadvantages of gamification
- Types of gamification elements

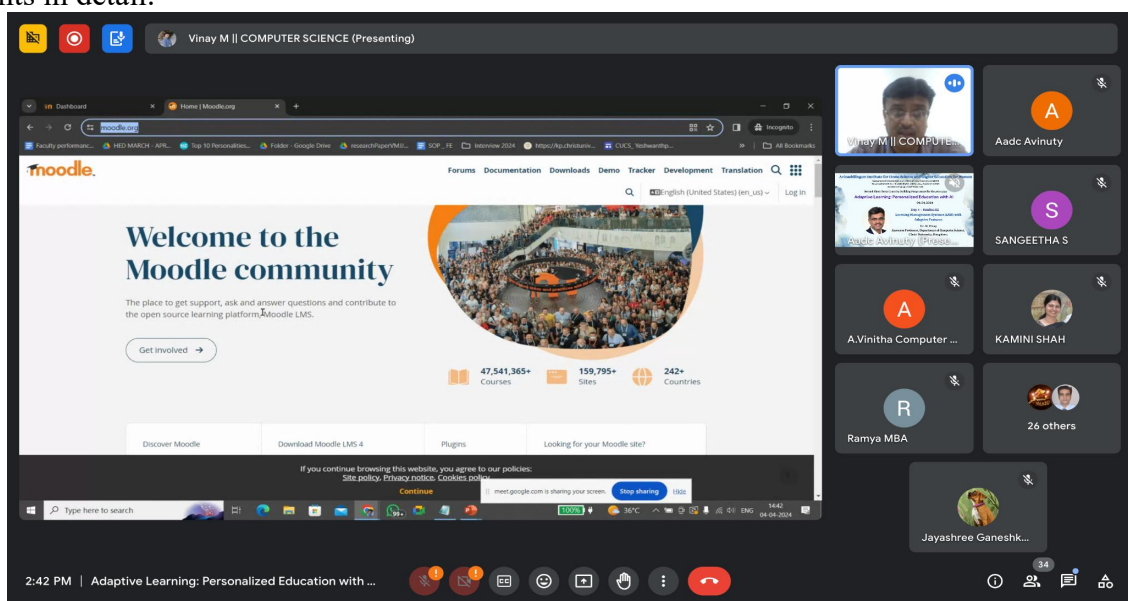
Day 4: 04.04.2024 Session 3

Learning Management System with adaptive features
Dr.M.Vinay
Associate Professor, Department of Computer Science,
Christ University, Bangalore



Dr.M.Vinay speaks about the importance of personalization and the advantages educators have while using the Learning Management System (LMS). Additionally, not just students but also the educators have to become digitally smart and equipped to teach the students, they must be equipped with technology and have to engage the classroom so the students stay active during the session. Embracing the technology to prepare the students for jobs that do not exist now but are emerging is one of the important roles of an educator, thus helping in staying relevant. Learning Management System is a software application that helps organizations manage, deliver, track and report online learning courses and programs. It stores and delivers learning content and administers assessments to track learner progress. The session discusses the different types of assessment starting from early assessment to understand their existing knowledge which will help the teachers to prepare for the participants of the class. This will also allow the educators to understand the learning style of the participants. Further, the speakers explain adaptive LMS and its benefits for the students as well as teachers.

In conclusion, the speaker gives examples of LMS softwares such as Moodle, Google classroom and discusses some of the key features each of them provides. Additionally, demonstrations of these LMS softwares, its features, its customization, disadvantages and advantages were also conveyed to the participants in detail.



Take away from the session:

- Importance of Learning Management System
- Features of Learning Management System
- Benefits of Adaptive LMS
- Examples and demonstration of LMS

Day 4:04.04.2024 Session 4

Data Collection and analytics in adaptive learning

Dr.George Ghinea

Professor, Mulsemmedia Computing

Brunel University, London, UK

The screenshot shows a Zoom meeting in progress. The main content area displays a presentation slide with the following text:

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-641 043, Tamil Nadu, India

Second Short Term Capacity Building Programme for the year 2024

Adaptive Learning: Personalized Education with AI

04.04.2024

Day 4 – Session IV

Data Collection and Analytics in Adaptive Learning

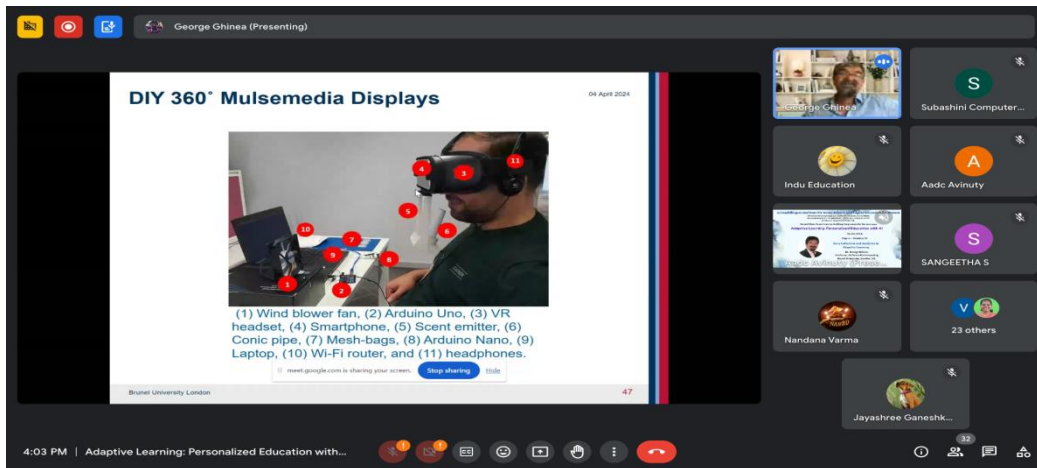
Dr. George Ghinea
Professor, Mulsemmedia Computing
Brunel University, London, UK.

The Zoom interface on the right shows a grid of participants. The top row includes George Ghinea and Molliga P. Below them are Subashini Computer..., Indu Education, Aadc Avinuty, SANGEETHA S, Nandana Varma, and 21 others. At the bottom, there is a 'Jayashree Ganeshk...' tile. The bottom status bar shows the time as 4:23 PM and the meeting title 'Adaptive Learning: Personalized Education with ...'.

Prof.George initiated the discussion by enlightening the participants on his work that involves multimedia and the challenges faced by it. Multimedia is limited to senses such as auditory, visual, and haptics. Prof.George Ghinea’s novel approach of Multiple Sensory Media also known as MulSemedia is a concept of using 3 or more senses for applications. Further, integration of olfactory MulSemedia, challenges faced and some applications that currently exist were also shared to the participants. Additionally, some of the olfactory sense that was created artificially for videos to enhance the interactivity and engagement for the viewers were discussed during the session. By interrelating and collaborating with MulSemedia with learning, information recall among students was observed in his work.

Education often involves using and focusing on unisensory experiences, but the session emphasises on integrating multiple sensory cues that allow the learners to engage with the learning content. He further enlightens the participants through his research which was proven to be effective for knowledge retention and knowledge relativity.

The speaker shares his views on different scenarios of MulSemedia in classroom learning including AR/VR, Haptic vest which promotes sense of touch and smart fan which aids in olfactory senses. The session was concluded by discussing the opportunities of AI and ML to improve MulSemedia resulting in improved Adaptive Learning.



Take away from the session:

- Introduction to MulSemedia and its proven benefits
- Integrating MulSemedia in learning environment
- Devices for MulSemedia that enhances learning experience

Day 5: 05.04.2024 Session 1

Ethical considerations in adaptive learning data usage
 Dr.Vivekanandan Suresh
 Athabasca University, Canada

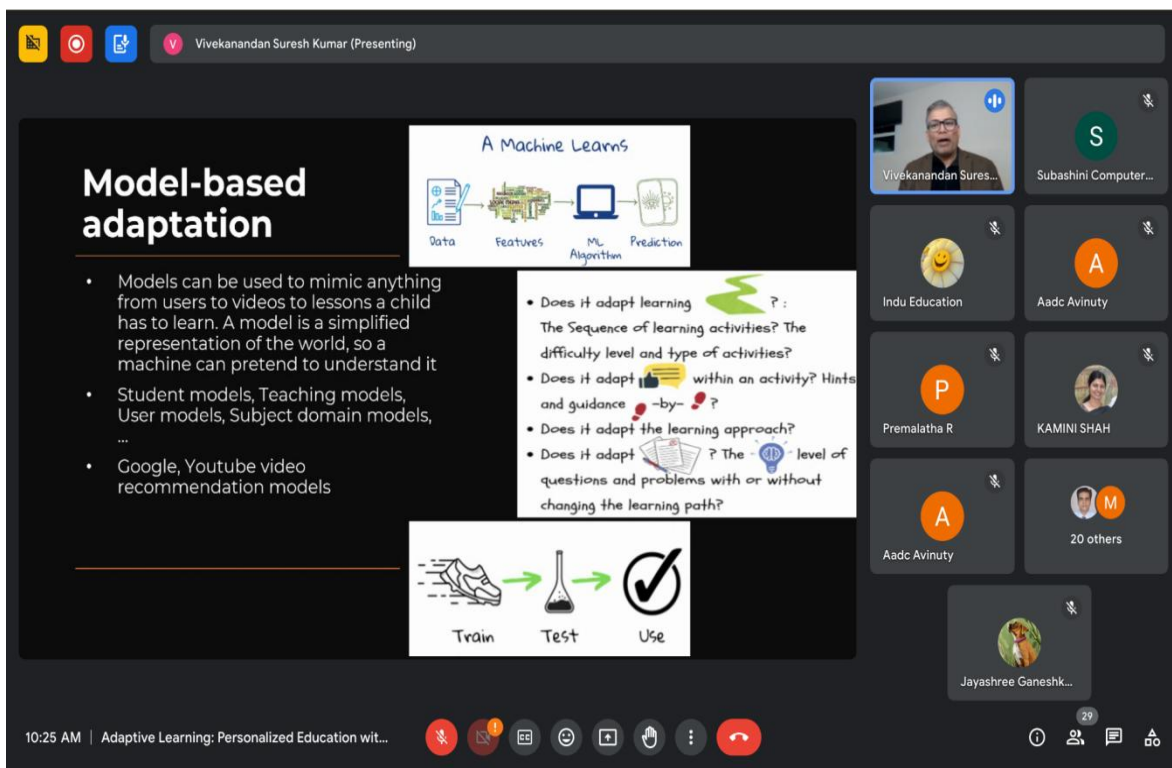


Prof.Suresh initiated the discussion by emphasizing the importance of personalized learning that creates custom learning environments for individuals needs and capabilities. Different dimensions of personalized learning were also discussed. The session further delved into adaptive learning techniques such as the Intelligent Tutoring System which was developed in the year 1960s which captures the interaction of the students.

Adaptive learning supports learning until students carry out tasks independently while nurturing students ability to reason, explain, self-regulate and co-regulate. Adaptive learning for people with learning disabilities such as attention deficit are handled differently by accommodating their drawbacks. Knowledge space theory is a set of concepts and structures that aims to assess and represent one's knowledge state. Additionally, the teacher can use facial recognition, body language gestures recognition to understand the students mood resulting in improvement of teaching methods.

The speaker gave the participants some examples that were adapted in the Athabasca University where students are monitored in a coding assignment and match with the industry standard requirement. The system captures details such as errors in the code, how the students resolved it, how efficient their coding skills are. Some of the adaptive learning systems that exist in the market were shared so that universities and educational institutions can make use of it. Some of them are already implemented in the US and Canada.

To conclude, the speaker discusses the perspectives of philosophical ethics that have to be adapted while collecting data for learning analytics. He shares his view on an educational policy framework for the Institution that is willing to adopt adaptive learning systems.



Take Away from the session:

- Dimensions of personalized learning
- Introduction of Knowledge space theory in adaptive learning
- Experimental significance for adaptive learning in classroom environment
- Perspectives from philosophical ethics

Day 5: 05.04.2024 Session 2

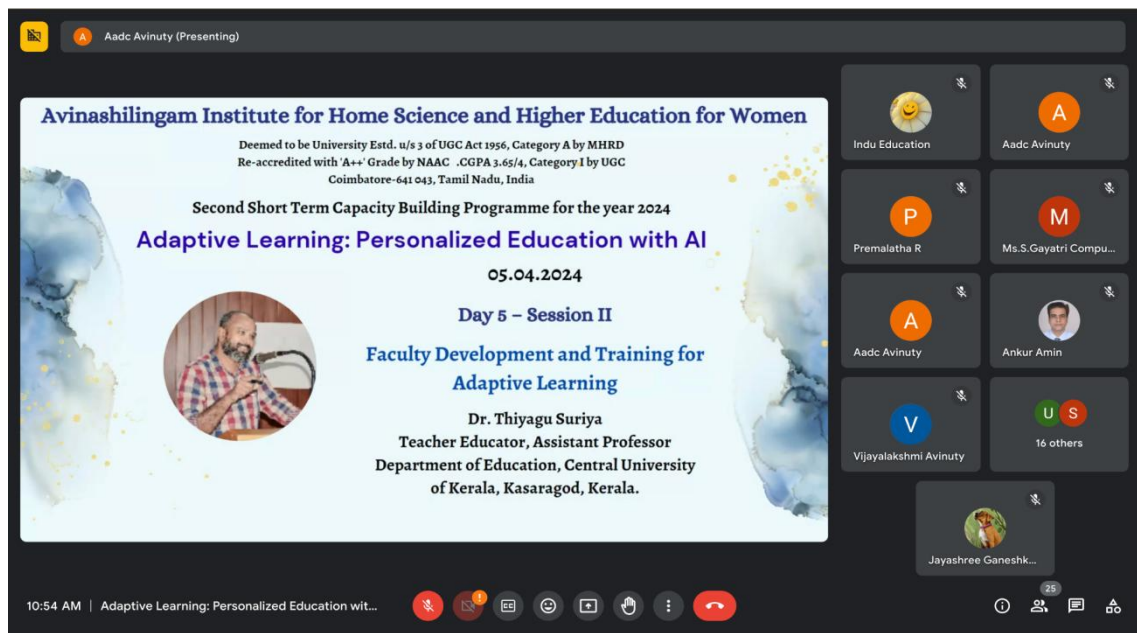
Faculty development and training for adaptive learning

Dr.Thyagu Suriya

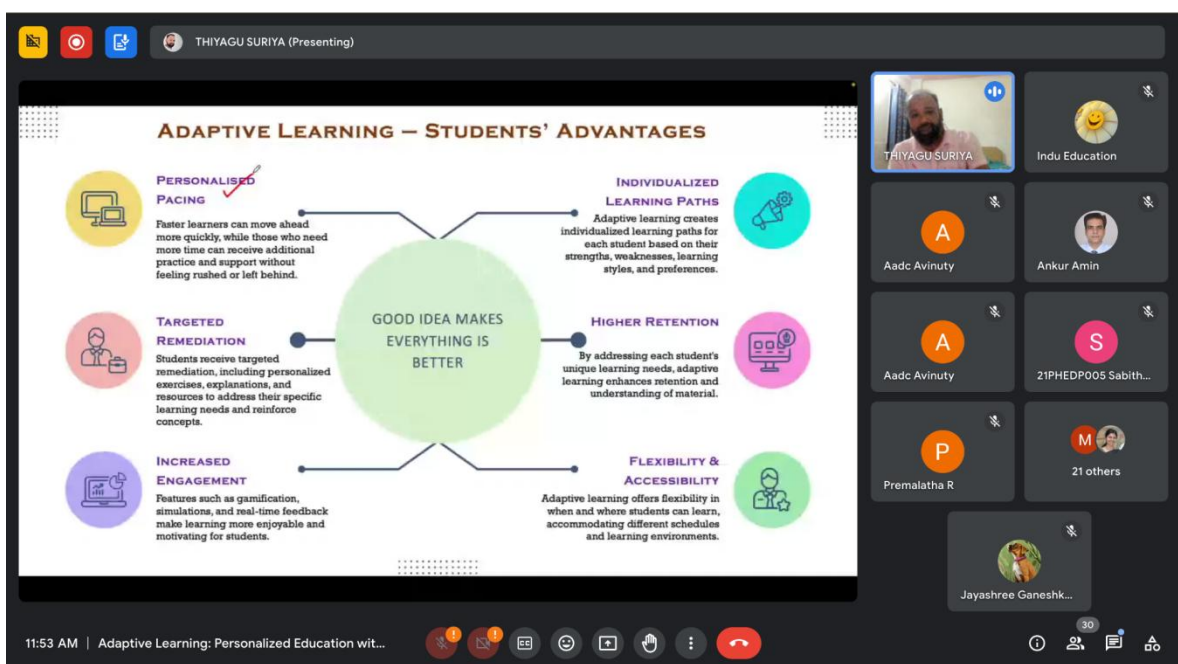
Teacher Educator, Assistant Professor

Department of Education, Central University of Kerala

Dr. Thyiyagu Suriya discusses the meaning of Artificial Intelligence in adaptive learning, generative AI and its outcomes during the session. He introduces different AI robots that are existing and different features it provides for humans such as IRIS, a robot teacher that can teach students from nursery to 12th grade in 3 different languages. He introduced an AI tool that can transcribe in live to the native language of the listener, thus improving the inclusivity in education. The session discusses the different capabilities of Artificial Intelligence and AI based robots which can sense, act and think (STA). Further, the speaker interrelates AI with adaptive learning which can accommodate different types of learners. Personalization in different applications in the mobile are also discussed such as youtube, instagram and Swiggy personalization which adapts to the user's preference and likings.



The speaker discusses the advantages of adaptive learning such as personalized pace, targeted remediation, increased engagement for students. He demonstrated some of the tools for integrating in online learning such as soundcanva that can track eye movement of the user. The speaker shares his knowledge on uses of AI in education which can eliminate or reduce the risk of students suicide. The session involved demonstration of different prompts in ChatGPT that are beneficial for educators. He urges the user to follow different frameworks PACT, TAG, TRACE, CLEAR, APPROACH etc for prompting ChatGPT to make the responses useful for the user with an example. In conclusion, the speaker discusses the importance of chatbots and urges the educational institutions to embrace the advancement in technology and leverage it for their purpose of delivering adaptive learning.

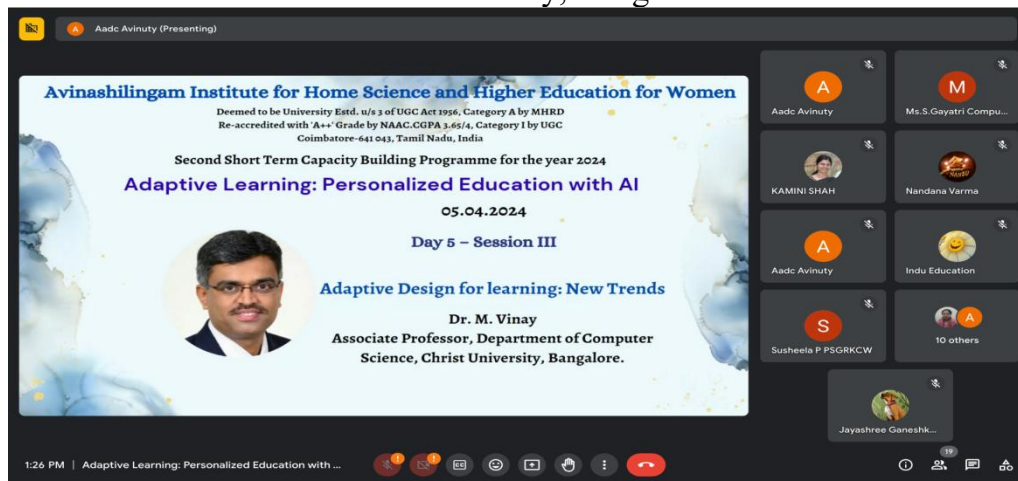


Take Away from the session:

- Meaning of Artificial Intelligence and generative AI in adaptive learning
- Tools for encouraging classroom inclusivity.
- Scope of Artificial Intelligence for the future
- Various frameworks for prompting ChatGPT for educators

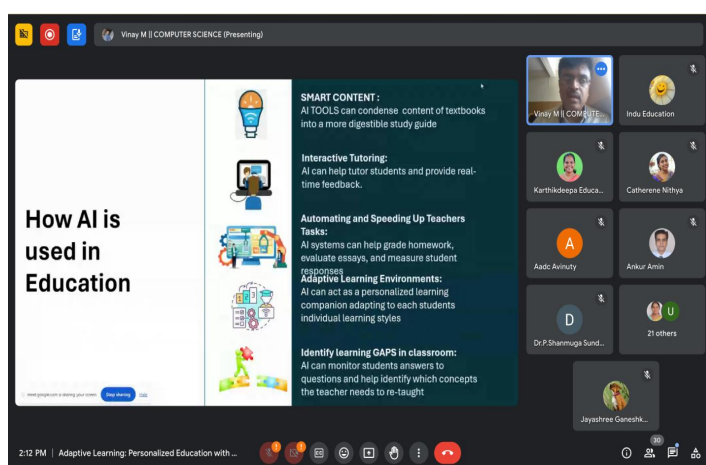
Day 5: 05.04.2024 Session 3

Adaptive design for learning: New trends
Dr.M.Vinay
Associate Professor, Department of Computer Science
Christ University, Bangalore



The session started with the evolution of Adaptive Learning and explores the new trends in AI. Dr.M.Vinay shares different adaptability in day to day applications such as web browsers that can be personalized according to the user's needs and goals. He talks about features that are freely available on the internet called Google Primer that encourages adaptive learning, for users who have the problem of information retention can use applications designed specifically for microlearning.

The session included demonstration of trending applications such as Duolingo, Meetup that enhance adaptive learning. Apart from that, AI can be used for content creation that can be an audio clip, AI generated video that learns from a Large Language Model(LLM). Further, the speaker shares about dashboards for learning analytics which are useful to know and visualize learner's interactivity in an online learning environment. The session delves into Social and Emotional Learning (SEL), a process of developing the skills and competencies that enable learners to understand and manage their emotions. The speaker concluded by demonstrating multiple AI tools such as canva, whimsical, Google research etc to assist the educator to implement adaptive learning. Additionally, applications which are specifically made for adaptive learning such as edapp, adaptemy, Knewton, Realizeit and CogBooks etc were shared to the participants.

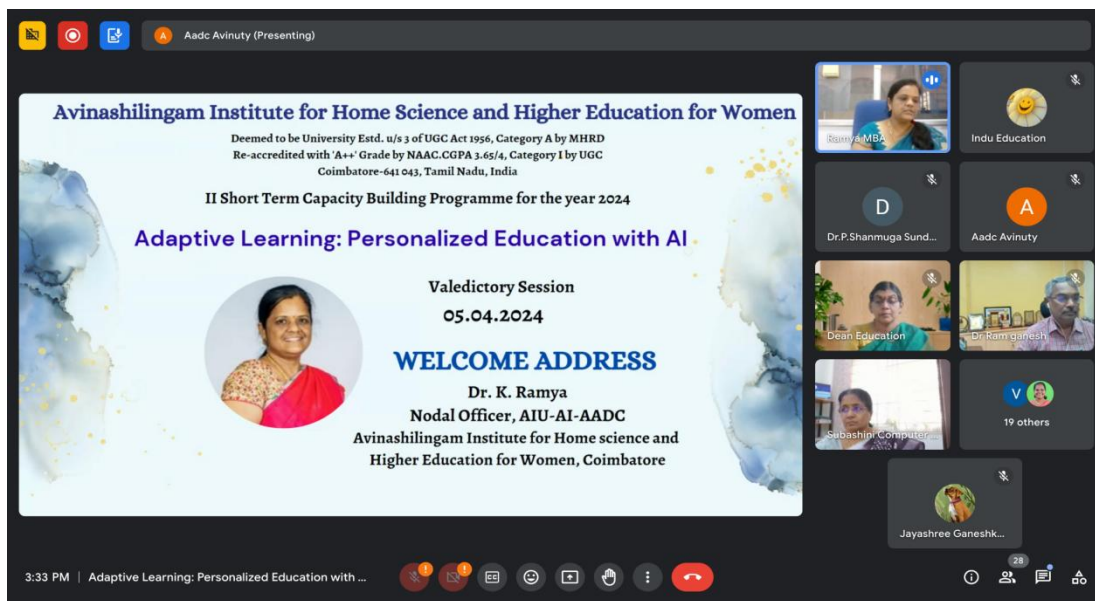


Take Away from the session:

- New trends in AI applications that are useful for educational purposes
- Personalized applications that promote personalized learning
- AI tools that can be used for academic purposes
- Learning analytics dashboard and visualization

Valedictory Session

Welcome Address
Dr.K.Ramya
Nodal Officer, AIU-AI-AADC,
Avinashilingam Institute for Home Science and Higher Education for Women



Dr.K.Ramya, Nodal Officer in Avinashilingam Institute of Home Science and Higher Education for Women welcomed and thanked the participants and guest speakers for the 5 day workshop on second short term capacity building programme for the year 2024 on the topic ‘Adaptive Learning: Personalized Education with AI’. During her speech, she emphasized the ability of guest speakers to engage the participants and share their knowledge in the field of adaptive learning. Further, the advantages and disadvantages of adaptivity were also discussed. The speaker concluded by thanking the guest speakers who shared their knowledge in the topic.

Presidential Address
Dr.H.Indu
Programme Coordinator
Avinashilingam Institute of Home Science and Higher Education for Women

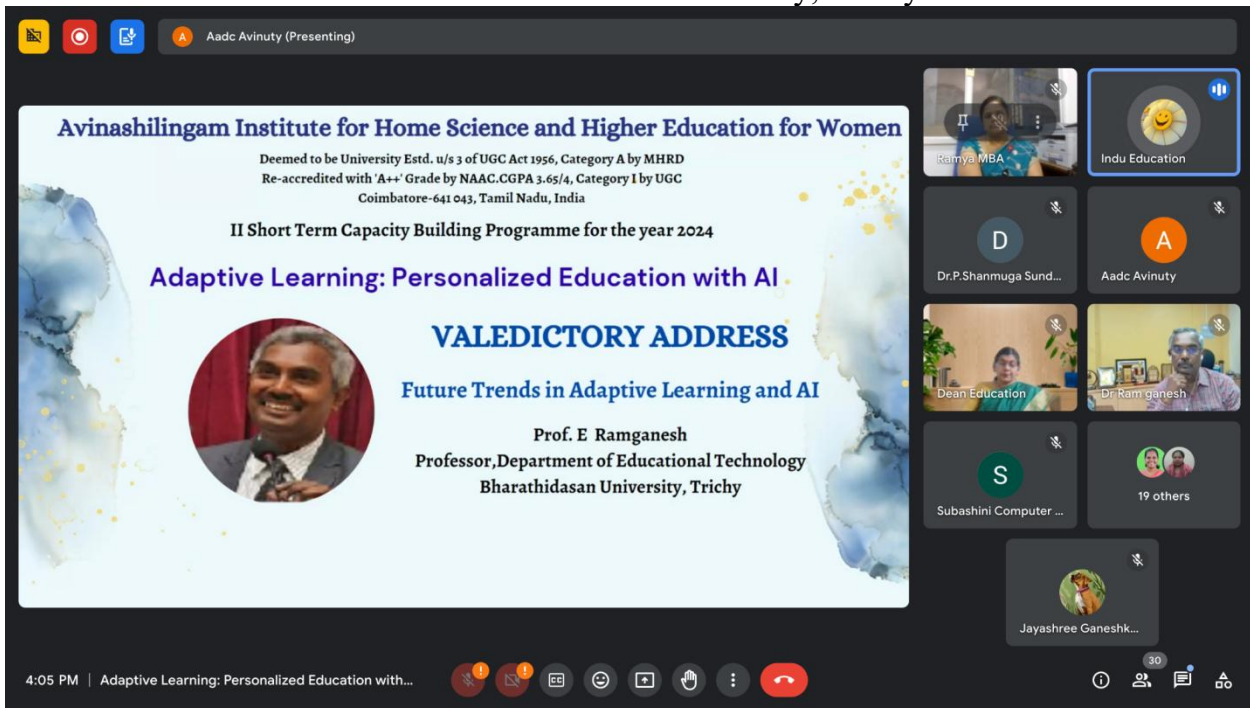


Dr.H.Indu, Programme Coordinator, Avinashilingam Institute of Home Science and Higher Education for Women, delivered the presidential address and thanked the participants for their support. She discussed the topic of adaptive teaching which gave the participants a holistic view of adaptivity. The speaker talks about different learning theories that were discussed in the workshop which was mainly used for

facilitating the progress of the student. The speaker further shares and emphasizes the participants to implement adaptive teaching in their classroom that helps to understand the student diversity and abilities.

Valedictory Address

Future trends in adaptive learning and AI
Prof. E.Ramganesh
Professor, Department of Educational Technology
Bharathidasan University, Trichy



The screenshot shows a Zoom meeting interface. The main window displays a presentation slide from Avinashilingam Institute for Home Science and Higher Education for Women. The slide content includes: '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-641 043, Tamil Nadu, India', 'II Short Term Capacity Building Programme for the year 2024', 'Adaptive Learning: Personalized Education with AI', 'VALEDICTORY ADDRESS', 'Future Trends in Adaptive Learning and AI', and 'Prof. E Ramganesh, Professor, Department of Educational Technology, Bharathidasan University, Trichy'. A circular portrait of Prof. E. Ramganesh is also visible. The right side of the screen shows a grid of participants, including Ramya MBA, Indu Education, Dr.P.Shanmuga Sund..., Aadc Avinuty, Dean Education, Dr. Ram ganesh, Subashini Computer..., 19 others, and Jayashree Ganeshk... The bottom of the screen shows the Zoom control bar with a timestamp of 4:05 PM and the title 'Adaptive Learning: Personalized Education with...'.

The speaker, Prof.Ramganesh believes that AI will be part of every household in the near future. The session involved some real world experiences regarding technology as a part of human evolution. He talks about thoughts on AI from great minds like Albert Einstein, recent development of AI and technology in India making the session interesting. The speaker also discusses the downsides and challenges of AI that is emerging. Further ,the session discussed the further development in AI from being generative AI to Artificial general intelligence which is astonishing at the pace the field is expanding. The speaker shares his view on Adaptive learning that engages AI to provide personalized learning that understands the diverse needs of the students. Further, the concepts of designed adaptivity and algorithmic adaptivity were discussed in the session. Personalized Learning that adds inclusivity in the classroom where the students enjoy the learning material for better knowledge retention.

The session concluded by discussing the future trends and scenarios for higher education in AI such as future skills universities that enhances the students skills through practical knowledge, networked universities where the students are interconnected, my-skill university which promotes the students preferences and finally lifelong higher learning university where a student can learn what they like to learn, could be a skill or arts or sports. This will promote and produce skilled future generations that are successful in their respective fields. The speaker briefs about AI models by companies that can enhance the learning and teaching experiences. The speaker's final thoughts were to embrace the technology and leverage the use of AI to promote an adaptive learning environment in classroom for better learning which paves the way for better innovation in the future.

22	Dr. Malliga P	Professor	Educational Media and Technology	NITTTR Chennai
23	Ms. M.Vijayalakshmi	Assistant Professor	Education	Avinashilingam Institute for Home Science and Higher Education for Women
24	Dr. Kamini Shah	Professor	Business Studies	Sardar Patel University
25	Ms.Jayashree Ganeshkumar	Research Scholar	Computer Science	Avinashilingam Institute for Home Science and Higher Education for Women
26	Mrs. Meenakshi PK	Assistant Professor	Education	Regional Institute of Education Mysore
27	Mrs. Maheswari.G	Assistant Professor	Education	Dr.SNS College of Education
28	Mrs. Jayasudha.j	Research scholar	Computer Science	Avinashilingam Institute for Home Science and Higher Education for Women
29	Dr. Susheela P	Associate Professor	Zoology	PSGR Krishnammal College for Women
30	Ms. Divya S	Research Scholar	English	Avinashilingam Institute for Home Science and Higher Education for Women
31	Mrs. Catherine Nithya S	Ph.D Research Scholar	Education	Meston College of Education
32	Mrs. Elizabeth Leah George	Assistant Professor	Computer and Information Science	Nagindas Khandwala college, Malad West, Mumbai
33	Ms.Sweta.A	PhD Scholar	Music	Avinashilingam Institute for homescience and Higher education for women
34	Ms. Megha Pillai	Research scholar	Department Of Music	Avinashilingam Institute for Home Science & Higher Education for Women, Coimbatore
35	Dr. Karthik Deepa C	Assistant Professor	Education	Avinashilingam Institute for Home Science and Higher Education for Women
36	Dr.k. Sathiyabamavathy	Assistant Professor	Tourism Management	Avinashilingam Institute of Home Science and Higher Education for Women
37	Mrs. A.Sajuna	Assistant Professor	Computer Science	Karpagam Academy of Higher Education
38	Ms Anusree P E	Assistant professor	Computer applications	Karpagam Academy of Higher Education

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
 &
Department of Education

Certificate No: AIU - AI - AADC/ 2024 /02/016

CERTIFICATE OF PARTICIPATION

This is to certify that

Dr. Ankur D. Amin

Assistant Professor, P G Department of Business Studies
Sardar Patel University, Vallabh Vidyanagar, Gujarat

has participated in the Short-Term Capacity Building Programme on
“Adaptive Learning: Personalized Education with AI” conducted by
AIU - Avinashilingam Institute – Academic & Administrative Development Centre (AIU - AI- AADC) &
Centre for Machine Learning and Intelligence (CMLI) & Department of Education
from 01/04/2024 to 05/04/2024 and his performance was Good.


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


Dr. P. Subashini
 Programme
 Coordinator


Dr. H. Indu
 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

Second Short-Term Capacity Building Programme for the year 2024 on

‘Adaptive Learning: Personalized Education with AI’

Day/Date	Session I 9.30 am to 11.00 am	Session II 11.15 am to 12.45 pm	Session III 01.30 pm to 3.00 pm	Session IV 3.15 pm to 4.45 pm
Day 1 01/04/2024 Monday	<p>Inauguration & Special Address:</p> <p>Prof Marmar Mukhopadhyay Director, Educational Technology and Management Academy, New Delhi</p> <p>eMail : marmar.mukhopadhyay@gmail.com Mobile: 09810217987</p>	<p>AI Technologies in Higher Education</p> <p>Dr. Premnadh M Kurup Professor, Science Education Academic La Trobe University, Greater Melbourne, Australia</p> <p>e-Mail : P.Kurup@latrobe.edu.au Mobile: +61423032555</p>	<p>Using Data to Personalize Instruction</p> <p>Mr. Senthilkumar Rajappan Founder & CEO, Halcyon</p> <p>e-Mail : rsk@halcyondigital.in Mobile: 9442649104</p>	<p>Demo: LANQUILL, AI based personalized Language learning tool</p> <p>Dr. P.Subashini Coordinator, Centre for Machine Learning and Intelligence, Avinashilingam Institute for Home Science & Higher Education for Women, Coimbatore.</p> <p>e-Mail : subashini_cs@avinuty.ac.in Mobile: 9442271971</p>
Day 2 02/04/2024 Tuesday	<p>Understanding Adaptive Learning Principles</p> <p>Dr. M.N.G.Mani Chief Executive Officer, ICEVI Secretariat</p> <p>e-Mail : ceo201922@gmail.com Mobile:9442649104</p>	<p>Demo: Exploring Adaptive Learning Platforms</p> <p>Dr P. Subashini Coordinator, Centre for Machine Learning and Intelligence, Avinashilingam Institute for Home Science & Higher Education for Women,Coimbatore.</p> <p>E-Mail : subashini_cs@avinuty.ac.in Mobile:944227197</p>	<p>Adaptive Assessment Tools and Techniques</p> <p>Dr Arindam Bose Associate Professor,Centre of Excellence in Teacher EducationTISS, Mumbai Campus</p> <p>e-Mail : arindam.bose@tiss.edu Mobile:9869985183</p>	<p>Interpreting Learning Analytics Dashboards</p> <p>Mr. Bijo Kuruvilla VP - Enterprise Solutions</p> <p>e-Mail : ms@ospyn.com Mobile:8304009103</p>

Day/Date	Session I 9.30 am to 11.00 am	Session II 11.15 am to 12.45 pm	Session III 01.30 pm to 3.00 pm	Session IV 3.15 pm to 4.45 pm
Day 3 03/04/2024 Wednesday	Pedagogical Approaches for Adaptive Learning Design Dr. Biju Associate Professor Central University, Thiruvapur e-Mail : bijukvr@gmail.com Mobile:89433 27651	Content Customization and Sequencing Dr. Biju Associate Professor Central University, Thiruvapur e-Mail : bijukvr@gmail.com Mobile:89433 27651	Adaptive Feedback and Support Mechanisms Dr Sheela.G Department of Studies in Education University of Mysore e-Mail : sheeyash@rediffmail.com Mobile: 9448241293	Building Learner Profiles and Preferences Dr. J. Sujathamalini Dean, School of Special Education, Alagappa University e-Mail : smalinij@alagappauniversity.ac.in Mobile:9894960171
Day 4 04/04/2024 Thursday	Collaborative Learning Communities and Networks Prof Mythili Ramchand Professor and Co-Chairperson, Centre of Excellence in Teacher EducationTISS, Mumbai Campus. e-Mail mythili.ramchand@tiss.edu Mobile: 8197348679	Gamification for Learning Mr. BC. Jainareesh Technical Head, Scopik Edutech, Chennai. e-Mail : jainareesh.bc@gmail.com	Learning Management Systems (LMS) with Adaptive Features Dr. M. Vinay Associate Professor Department of Computer Science School of Sciences Christ University Bangalore. e-Mail : vinay.m@christuniversity.in Mobile : 9986388234	Data Collection and Analytics in Adaptive Learning Dr. George Ghinea Professor of Mulsemmedia Computing, Director of Research, Department of Computer Science, Brunel University, London, UK. e-Mail : George.Ghinea@brunel.ac.uk
Day 5 05/04/2024 Friday	Ethical Considerations in Adaptive Learning Data Usage Dr. Vivekanandan Suresh Athabasca University, Canada. e-Mail : vivek@athabascau.ca	Faculty Development and Training for Adaptive Learning Dr. Thyagu Assistant Professor, Central University of Kerala, Kasargod. e-Mail : thiyagusuri@cukerala.ac.in Mobile:9486812800	Adaptive Design for learning: New Trends Dr. M. Vinay Associate Professor, Department of Computer Science ,School of Sciences, Christ University, Bangalore. e-Mail : vinay.m@christuniversity.in Mobile : 9986388234	Valedictory Address Theme : Future Trends in Adaptive Learning and AI Prof E Ramganes Professor, Department of Educational Technology, Bharathidasan University, Trichy. e-Mail : dreramganes@bdu.ac.in Mobile : 9443085415

Avinashilingam Institute for Home Science and Higher Education for Women



**AIU - Avinashilingam Institute -
Academic and Administrative Development Centre
(AIU-AI-AADC)**

&

**Centre for Machine Learning and Intelligence (CMLI) &
Department of Education**

Jointly organizes

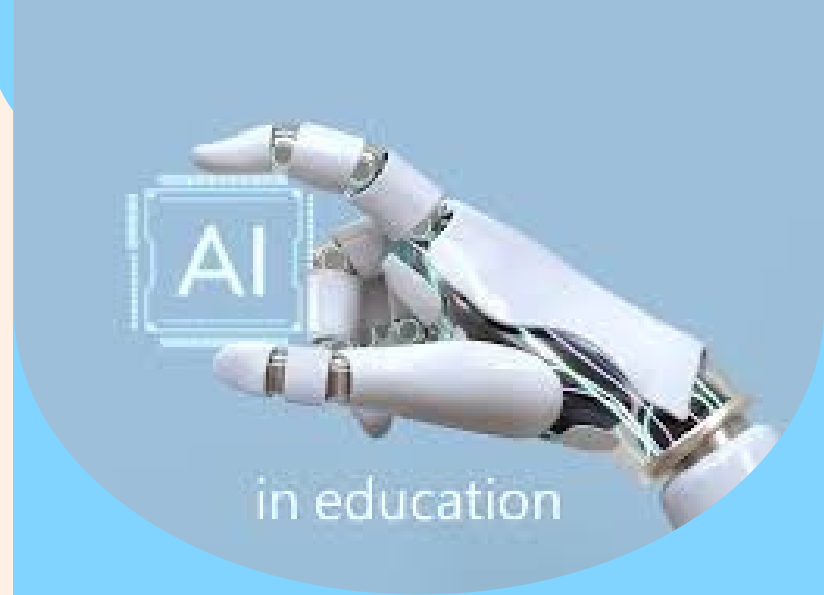
II Short Term Capacity Building Programme for the year 2024

on

**Adaptive Learning: Personalized
Education with AI**

01.04.2024 to 05.04.2024

**Invited Talks
Case Studies
Hands -on Sessions
Activities**



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; 81st 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.



ABOUT THE ASSOCIATION OF INDIAN UNIVERSITIES

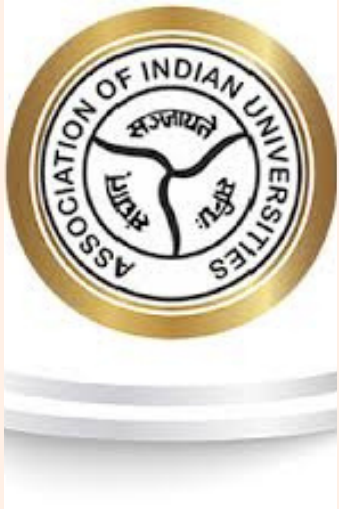
Association of Indian Universities (AIU) is an apex inter university representative body of universities and other higher education institutions in the country. Established in 1925 as the Inter University Board (IUB) of India, it acquired its legal status as a registered society in 1967 under the Societies 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 1002 Members which includes 16 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.





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 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 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



ABOUT THE PROGRAMME

- In today's educational landscape, the rapid advancement of technology has transformed traditional teaching and learning methods. Amidst this evolution, the integration of Artificial Intelligence (AI) into education has emerged as a powerful tool to personalize learning experiences. Adaptive learning, a subset of AI, tailors educational content and delivery to meet the unique needs and preferences of individual learners, thereby optimizing engagement and learning outcomes.



- This program addresses the pressing need for higher education professionals to understand and harness the potential of adaptive learning technologies. By providing a comprehensive overview of adaptive learning principles, AI-driven tools, and pedagogical strategies, participants will gain insights into how to create dynamic, personalized learning environments that cater to diverse learner profiles.

- Furthermore, the program emphasizes the practical application of adaptive learning through hands-on workshops, case studies, and collaborative projects. Participants will explore cutting-edge AI technologies, analyze learning analytics data, and develop action plans for integrating adaptive learning into their curricula effectively.
- By the program's end, participants will not only possess the knowledge and skills to implement adaptive learning solutions but will also be equipped to navigate the challenges and ethical considerations inherent in this rapidly evolving field. Through collaboration and shared expertise, they will be empowered to drive innovation and enhance the quality of education in higher education institutions, ultimately fostering student success in the digital age



OBJECTIVES

- Understand the fundamentals of adaptive learning and its applications in higher education.
- Explore various AI-driven tools and platforms for adaptive learning.
- Design and implement personalized learning experiences using adaptive learning technologies.
- Analyze data insights to inform instructional decision-making and enhance learning outcomes.
- Foster collaboration among participants to share best practices and strategies for integrating adaptive learning into curricula.



TARGET PARTICIPANTS

This program is designed for higher education institution professors, lecturers, and network administrators who are interested in leveraging AI-driven adaptive learning technologies to enhance teaching and learning outcomes.

Duration : 01.04.2024 to 05.04.2024

(5 Days Programme)

Time : 9:30 am to 4:45 pm

Mode : Online

PROGRAMME SCHEDULE

Day 1: Date: 01.04.2024

Introduction to Adaptive Learning

- Artificial Intelligence and Adaptive Learning
- AI Technologies in Higher Education
- Using Data to Personalize Instruction
- Demo: LANQUILL, AI based personalised Language learning tool



Day 2: Date: 02.04.2024

AI-driven Tools for Adaptive Learning

- Understanding Adaptive Learning Principles
- Interpreting Learning Analytics Dashboards
- Adaptive Assessment Tools and Techniques
- Demo: Exploring Adaptive Learning Platforms

Day 3: Date: 03.04.2024

Designing Personalized Learning Experiences

- Pedagogical Approaches for Adaptive Learning Design
- Content Customization and Sequencing
- Adaptive Feedback and Support Mechanisms
- Building Learner Profiles and Preferences



Day 4 : Date: 04.04.2024

Data Analysis and Decision-making

- **Collaborative Learning Communities and Networks**
- **Gamification for Learning**
- **Learning Management Systems (LMS) with Adaptive Features**
- **Data Collection and Analytics in Adaptive Learning**

Day 5 : Date: 05.04.2024

Integration and Collaboration

- **Ethical Considerations in Adaptive Learning Data Usage**
- **Faculty Development and Training for Adaptive Learning**
- **Adaptive Design for learning: New Trends**
- **Future Trends in Adaptive Learning and AI**



LIST OF RESOURCE PERSONS

- **Prof Marmar Mukhopadhyay**, Director, Educational Technology and Management Academy, New Delhi.
- **Dr. Mythili Ramchand**, Professor and Co-Chairperson, Centre of Excellence in Teacher Education, Tata Institute of Social Sciences(TISS),Mumbai.
- **Dr. Premnadh M Kurup**, Professor, STEM Education(TF)Education, La Trobe University, School of Education, Melbourne, Australia.
- **Dr. M.N.G.Mani**, Chief Executive Officer, ICEVI Secretariat, Coimbatore.
- **Dr. J.Sujathamalini**, Dean,School of Special Education, Alagappa University, Karaikudi.
- **Dr. George Ghinea**, Professor of Mulsemmedia Computing, Director of Research, Department of Computer Science, Brunel University, London, UK.
- **Dr. Vivekanandan Suresh Kumar**, Professor, Athabasca University, Edmonton, Alberta, Canada.
- **Dr Sheela G**, Professor, Department of Studies in Education, University of Mysore.
- **Prof E Ramganes**, Professor, Department of Educational Technology, Bharathidasan University, Trichy.
- **Mr. Senthilkumar Rajappan**, Founder & CEO, Halcyon.
- **Mr. B.C. JaiNareesh**, Technical Head, Scopik Edutech, Chennai.
- **Mr. Bijo Kuruvilla**, VP - Enterprise Solutions.
- **Dr. Arindam Bose**, Associate Professor, Centre of Excellence in Teacher Education, Tata Institute of Social Sciences(TISS), Mumbai.
- **Dr. M.Vinay**, Associate Professor, Department of Computer Science, School of Sciences, Christ University, Bangalore.
- **Dr. Biju K**, Associate Professor, Central University of Tamil Nadu, Thiruvavur.
- **Dr. Thiyagu Suriya**, Teacher Educator, Assistant Professor, Department of Education, Central University of Kerala, Kasaragod, Kerala.

REGISTRATION

REGISTRATION LINK :

<https://forms.gle/nhNKH65XTdgmbYRZ6>

REGISTRATION FEE

- Indian Participants Rs. 750
- International Participants USD 25

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 : 6010310202

IFSC Code : IDIB000A005

SWIFT Code : IDIBINBBCBE

Scan here to register yourself



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 COORDINATORS

Dr. H. INDU

Dean, School of Education

Professor, Department of Education

Avinashilingam Institute for Home Science and Higher Education for Women

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

Mobile : 9486244577

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

Mobile : 9442271971

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