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 Ninth Short Term Capacity Building Program on

Revolutionizing Life Sciences using Artificial Intelligence

Organised by

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

25.11.2024 - 29.11.2024

Mode : Online

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Ninth Short Term Capacity Building Program on

Revolutionizing Life Sciences using Artificial Intelligence

PROGRAMME COORDINATORS

Dr. Anitha Subash
Dean, School of Biosciences
Professor, Department of Biochemistry, Biotechnology and Bioinformatics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore – 641 043

Dr. P. Subashini
Coordinator, Centre for Machine Learning and Intelligence
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AIU-AI-AADC

Ninth Short-Term Capacity Building Programme on

‘ Revolutionizing Life Sciences using Artificial Intelligence ’

25.11.2024 to 29.11.2024 (5 Days) - Online Mode

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Report on 9 th Short Term Capacity Building Programme

on

Revolutionizing Life Sciences using Artificial Intelligence

25th November- 29th November 2024

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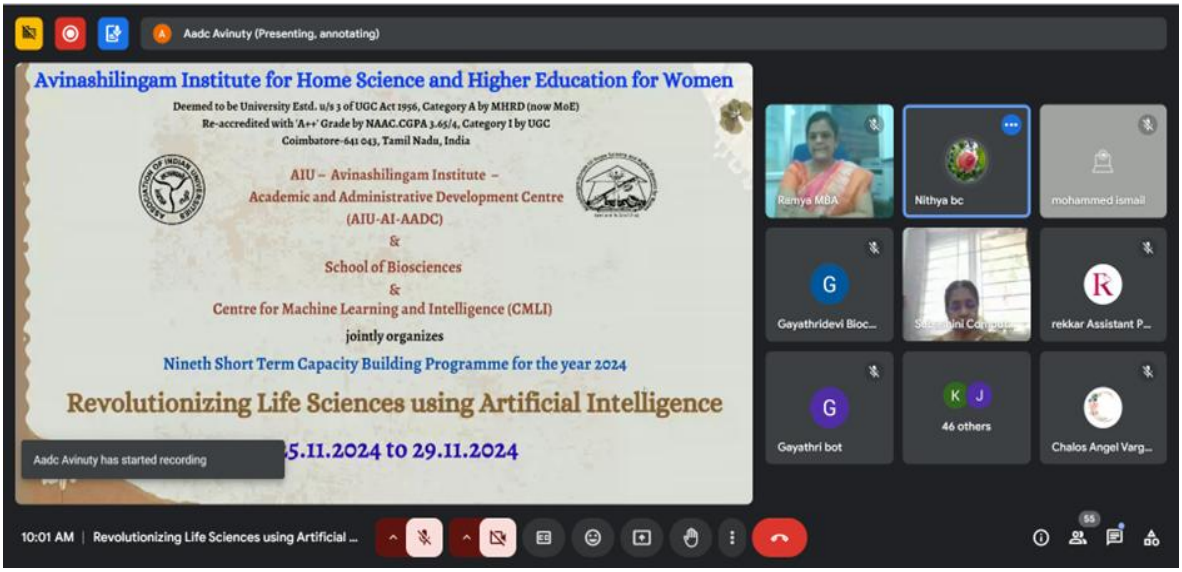
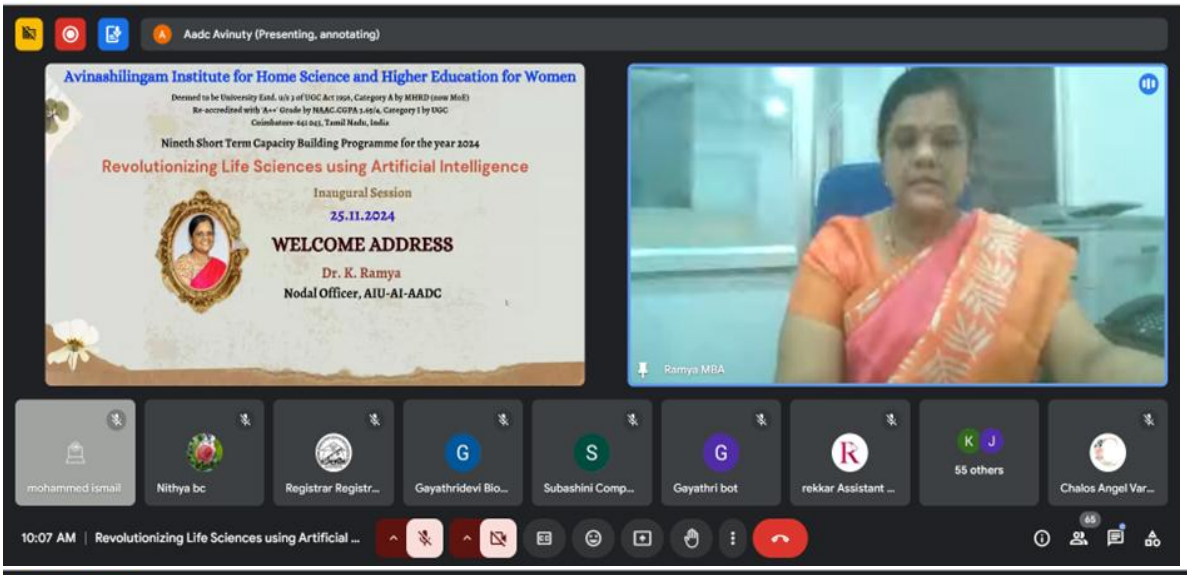
Report on Nineth Short Term Capacity Building Programme on
Revolutionizing Life Sciences using Artificial Intelligence
25th November- 29th November 2024

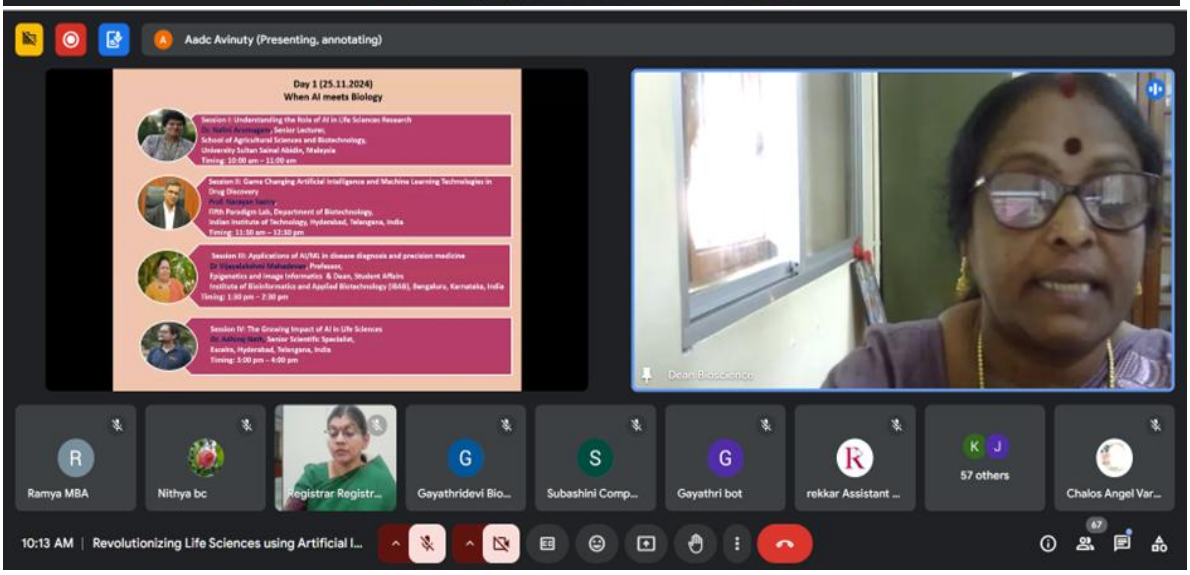
Inaugural session

The AIU – Avinashilingam Institute – Academic and Administrative Development Centre (AIU-AI-AADC) and School of Biosciences and Centre for Machine Learning and Intelligence organized the Ninth Short Term Capacity Building Programme on Revolutionizing Life Sciences using Artificial Intelligence between 25th November - 29th November 2024 with Diverse objectives: Understand AI applications in life sciences; Explore AI-driven tools for research; Learn predictive analytics for decision-making; Address ethical implications of AI use; Foster collaboration among interdisciplinary participants; Bridge AI advancements with life sciences. Around 63 participants from various states and institutions of higher education (HEIs) attended the programme.



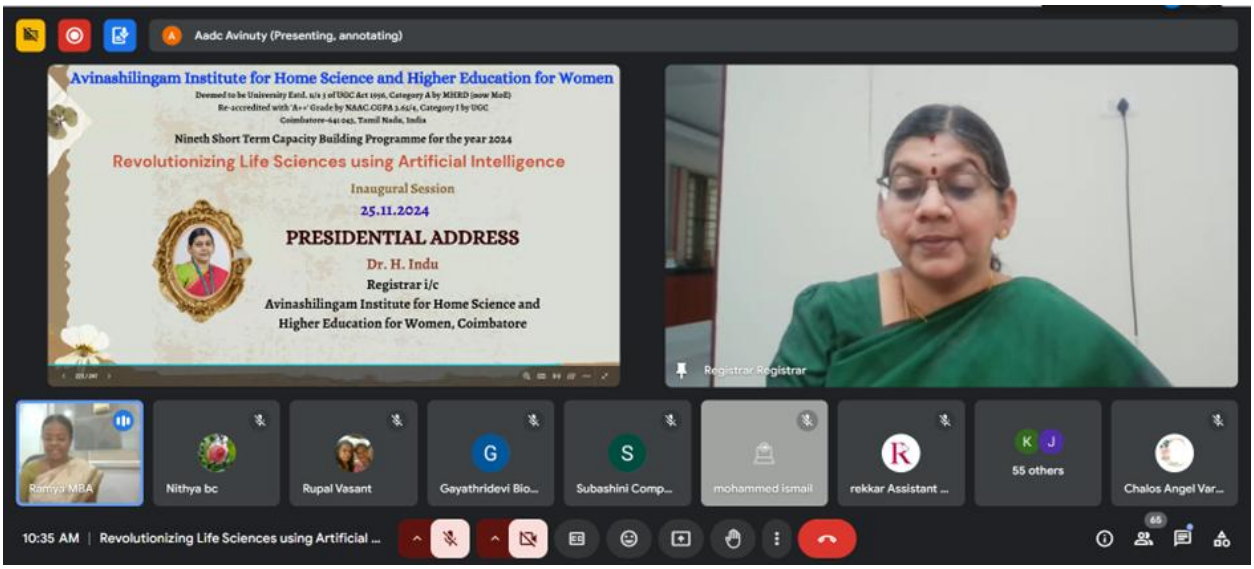
The program began with a prayer, followed by welcome by Dr. K. Ramya, Nodal Officer, AIU-AI-AADC. The brief for the 5-day program was presented by Dr. Anitha Subash, Dean, School of Biosciences, Professor, Department of Biochemistry, Biotechnology and Bioinformatics, Avinashilingam Institute for Home Science and Higher Education for Women and Programme Coordinator.





The presidential address was delivered by Dr. H. Indu, Registrar i/c, Avinashilingam Institute for Home Science and Higher Education for Women. During her talk she highlighted the dynamic intersection of life sciences and artificial intelligence (AI), focusing on their transformative potential, particularly in medicine and biotechnology. She emphasized AI's role in accelerating drug delivery, improving disease diagnosis, and predicting patient-specific risks, showcasing its growing importance in personalized medicine. She brought out the need for AI's integration into epidemiology and public health by highlighting its ability to determine disease patterns and addressed climate-related health issues. Furthermore, she highlighted AI's applications in ecological dynamics, biodiversity conservation, and sustainable use of medicinal plants, alongside advancements in gut microbiome research and herbal synergy. The address also touched on AI's impact on traditional health practices, such as Naadi Pariksha, through sensor-based, holistic health diagnostics. By combining AI with the Indian research system, madam advocated for innovation in drug synergy testing, yoga monitoring, and neurofeedback, aiming to connect ancient wisdom with modern scientific advancements. Dr. Indu concluded by

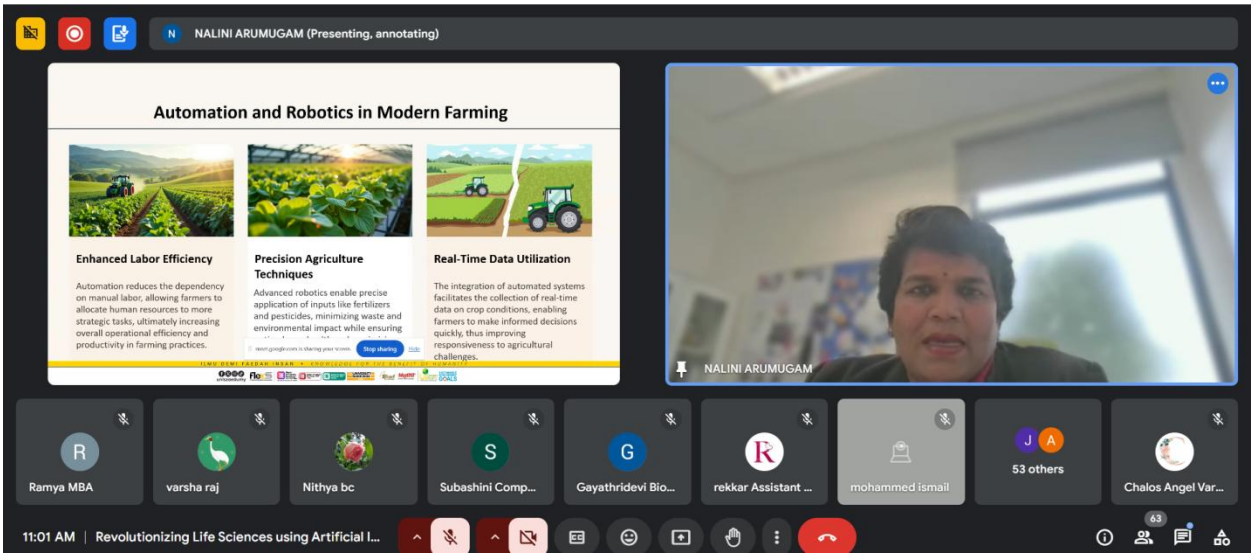
emphasizing the potential of collaborative AI in advancing healthcare, medicine, and environmental sustainability.



DAY 1: 25.11.2024/FN

Inaugural address

Dr. Nalini Arumugam, Senior Lecturer, School of Agricultural Sciences and Biotechnology, University Sultan Zainal Abidin Malaysia



Dr. Nalini Arumugam, Associate Professor, School of Agricultural Sciences and Biotechnology, University Sultan Zainal Abidin Malaysia delivered the inaugural address. Her talk was on the transformative potential of Artificial Intelligence (AI) in biosciences, agriculture, and agribusiness, emphasizing AI's role in advancing research and enabling innovation. She highlighted the integration of machine learning with biological research, particularly in enhancing genomic research, where AI-driven insights are accelerating data interpretation and facilitating breakthroughs. AI's application in personalized medicine was discussed, showcasing its ability to enable patient-centric

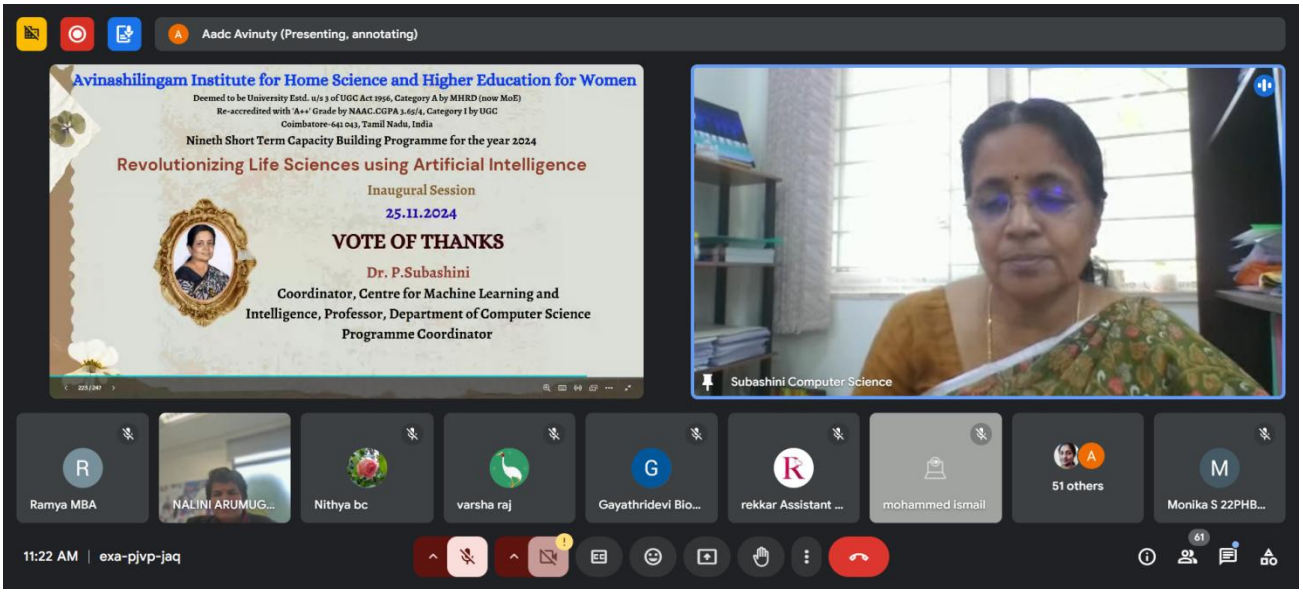
healthcare through customized treatments and improved bioprocess optimization. She also briefly explained about the Future trends in AI and biotech integration, such as drug repurposing, wearable technology, and collaborative AI platforms, alongside the importance of establishing ethical frameworks to address data privacy, ensure transparency, and build stakeholder confidence. The session underscored the need for data anonymization, ethical design, and public awareness to navigate the challenges of AI implementation responsibly.

She also shed light on AI's transformative impact on agriculture and agribusiness, emphasizing its capacity to maximize crop yields, profitability, and resource management. Techniques such as AI-driven soil health monitoring, automation, and precision agriculture were highlighted as critical advancements. Predictive analytics for market trends and resource allocation were presented as key tools for optimizing farming practices. The session further addressed AI's role in promoting sustainable practices and mitigating climate-related challenges in agriculture. While acknowledging the opportunities AI brings, she also emphasized the need to address adoption challenges, fostering collaboration, and leveraging AI technologies to build a sustainable and profitable agribusiness ecosystem.

Takeaways from the session:

- Transformative role of AI in biosciences, enabling advancements in genomic research, personalized medicine, and bioprocess optimization.
- Emphasized AI-driven innovations in agriculture, such as precision farming, soil health monitoring, and automation, to maximize yields and profitability.
- Discussed future trends in AI, including wearable technology, drug repurposing, and collaborative platforms, alongside ethical considerations like data privacy and transparency.

DAY 1: 25.11.2024-Vote of Thanks



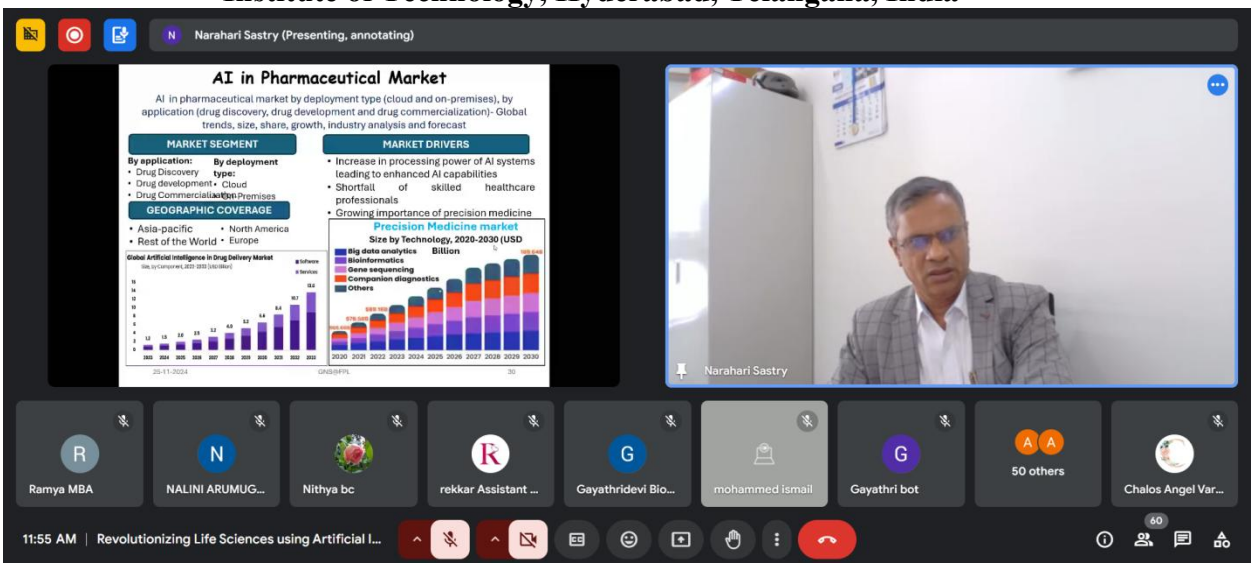
The inaugural session concluded with a warm note of greetings and formal vote of thanks by Dr. P. Subashini, Coordinator, Centre for Machine Learning and Intelligence, Professor

of Computer Science, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore

DAY 1: 25.11.2024 Session-2

Game Changing Artificial Intelligence and Machine Learning Technologies in Drug Discovery

Prof. Narahari Sastry Fifth Paradigm Lab, Department of Biotechnology, Indian Institute of Technology, Hyderabad, Telangana, India



Prof. Narahari Sastry's talk focused on the transformative role of Artificial Intelligence (AI) and Machine Learning (ML) in revolutionizing drug discovery, highlighting vast opportunities for research in this area. He emphasized the four paradigms of science—Theory & Rationalizing, Computation Modeling, Data Science AI/ML, and Industry 4.0 and 5.0. AI and ML are advancing drug discovery by rationalizing complex biological processes, enhancing computational models, and driving insights from massive datasets. He also gave an insight about Industry 4.0 that has facilitated automation and digitization in manufacturing, while Industry 5.0, focusses on human-centric AI, and is fostering better decision-making in drug development. He highlighted how AI-driven research accelerates innovation, particularly in times of crisis, citing historical examples from wars, pandemics, and natural disasters, which often catalyzed groundbreaking research.

His talk also delved into recent advancements, such as AI-driven robots that have discovered record-setting laser compounds and explored the usefulness and limitations of AI in research. The evolution of the Molecular Property Diagnostics Suite (MPDS) was discussed, particularly its modules focused on understanding non-covalent interactions, with applications in diseases like tuberculosis and COVID-19. AI's impact on the pharmaceutical market, especially in precision medicine, was also examined. He emphasized AI's potential in pharmaceutical markets, with a focus on prevention, cure, and crisis management, underlining the significance of AI in accelerating drug discovery and advancing public health solutions. The talk concluded by showcasing AI's potential in precision medicine markets, where it promises personalized treatment options and rapid diagnostics.

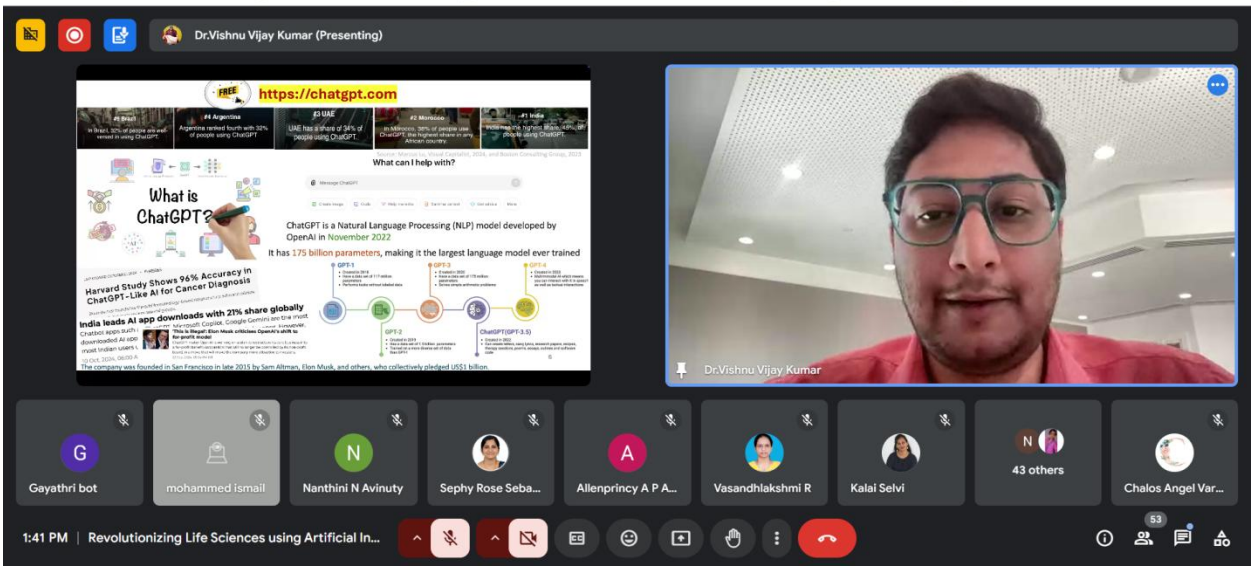
Takeaways from the session:

- AI and ML are accelerating drug discovery by enabling faster data analysis, improving precision medicine, and identifying new therapeutic targets.
- Historical research breakthroughs during crises such as wars and pandemics highlight the crucial role of AI in rapid drug development.
- AI-driven Molecular Property Diagnostics Suite (MPDS) module is advancing drug discovery and diagnostics, particularly for diseases like tuberculosis, COVID-19 etc.

DAY 1: 25.11.2024 Session-3

Unlocking the power of AI in academic research writing and publications

Dr.Vishnukumar, New York University, Abu dhabi



Dr.Vishnukumar talked about "Unlocking the Power of AI in Academic Research Writing and Publications" exploring the transformative role of Artificial Intelligence (AI), Machine Learning (ML), and Deep Learning (DL) in research writing. He also highlighted tools such as ChatGPT, Google Gemini, and Microsoft Copilot for their ability to assist researchers in brainstorming, writing, and generating content efficiently. Gemini, for example, can generate Python code and streamline the writing process, while ChatGPT enhances the quality of text through natural language processing. AI-driven tools like Perplexity AI, offer real-time information, and NotebookLM even converts research papers into podcasts. He also emphasized the importance of prompt engineering, with AI tools like the RTF framework and ChatGPT prompt chat sheets improving communication with AI systems.

His talk also covered a range of AI tools designed to assist throughout the academic writing process, from literature review to reference validation. He gave insights about tools like Word Tune and QuillBot, which improve writing quality, while PaperPal supports the organization and structure of research papers. He also enlightened about AI tools such as Proofig AI and StealthWriter which help humanize AI-generated content, making it more readable and engaging. Ethical considerations surrounding AI usage in academic writing were addressed, stressing the importance of responsible tool use. The session concluded with AI's role in peer review, content detection, and validating references, providing researchers with a comprehensive toolkit to improve their academic writing and research workflow.

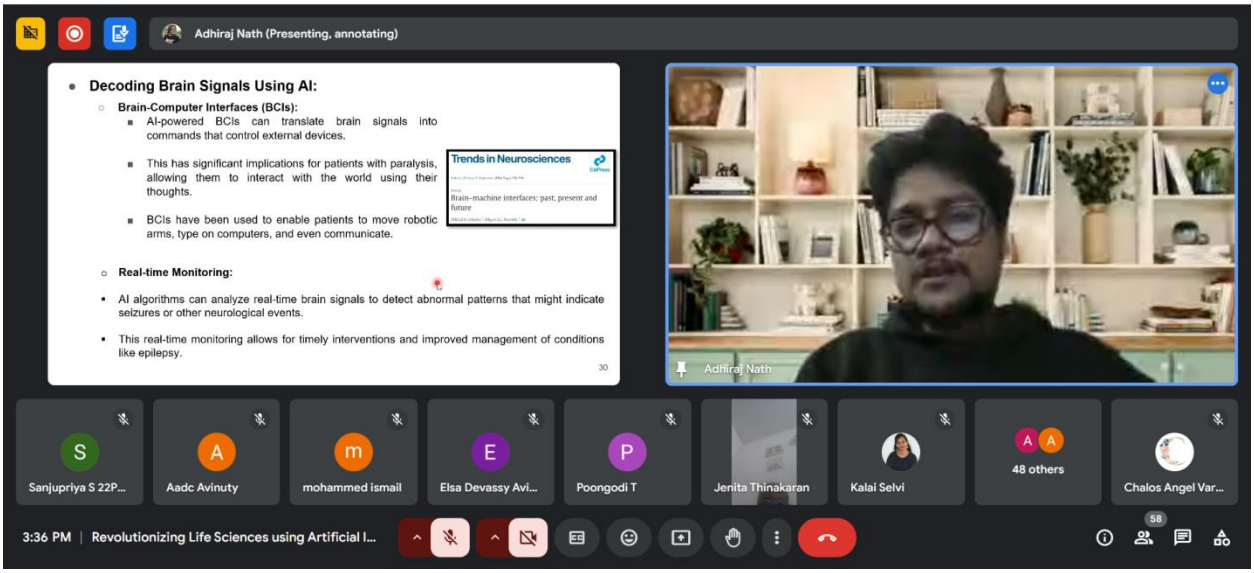
Takeaways from the session:

- AI tools like ChatGPT, Google Gemini, and Microsoft Copilot are revolutionizing academic research by streamlining literature reviews, enhancing writing quality, and generating content with high efficiency.
- Prompt engineering is an emerging area, enabling researchers to optimize their interaction with AI tools to improve research writing and communication processes.
- Ethical use of AI in research, combined with tools for peer review, reference validation, and content detection, is essential for maintaining integrity and quality in academic publications.

DAY 1: 25.11.2024 Session-4

The Growing Impact of AI in LifeSciences

Dr. Adhiraj Nath Senior Scientific Specialist, Excelra, Hyderabad, Telangana, India



Dr. Adhiraj Nath's talk entitled "The Growing Impact of AI in Life Sciences" delved into the revolutionary role of Artificial Intelligence (AI) and Machine Learning (ML) in advancing research, particularly in the life sciences. He included key topics about the application of large language models (LLMs) in biological data analysis, with a focus on protein language models and the vital role of microRNAs in gene prediction. He covered how to train ML models, including supervised learning algorithms such as Support Vector Machines (SVM), Random Forest (RF), k-Nearest Neighbors (KNN), and Logistic Regression (LogR), along with methods for feature calculation, model selection, and hyperparameter tuning. He also added the importance of K-fold cross-validation was emphasized on ensuring robust model performance. He highlighted on the practical aspects such as setting up ML model web servers and the architecture of Virtual Private Servers (VPS), showcasing the integration of AI in developing medical applications, such as disease prediction (e.g., Alzheimer's, Parkinson's), virtual screening, and therapeutic drug monitoring.

He also highlighted recent remarkable discoveries where AI has made a significant impact, particularly in the management of COVID-19. He also touched upon the growing field of Brain-Computer Interfaces (BCI) and real-time monitoring in neurosciences. AI brings immense potential

for disease prediction, drug response predictions, and medical imaging, challenges such as patient data privacy, bias in AI algorithms, and the need for ethical considerations in the use of AI were discussed. The session concluded with the importance of addressing these challenges to harness AI's full potential in life sciences, ensuring both accurate and ethical outcomes in medical and clinical research.

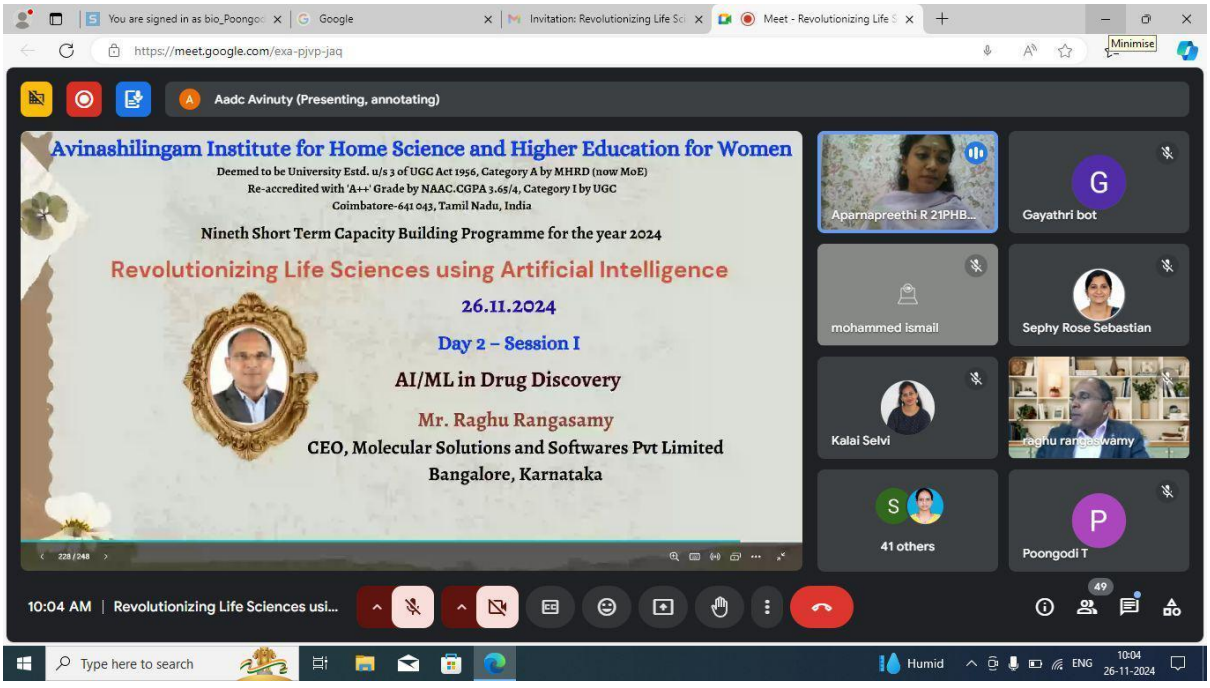
Takeaways from the session:

- AI and Machine Learning are transforming life sciences, with applications in protein modeling, microRNA gene prediction, disease detection, and therapeutic drug monitoring.
- Practical aspects of ML model development, including feature calculation, model selection, and hyperparameter tuning, were highlighted, along with the importance of K-fold cross-validation for model accuracy.
- Growing challenges in AI implementation, including data privacy concerns and the need for unbiased algorithms to ensure reliable and ethical outcomes in life sciences research were discussed.

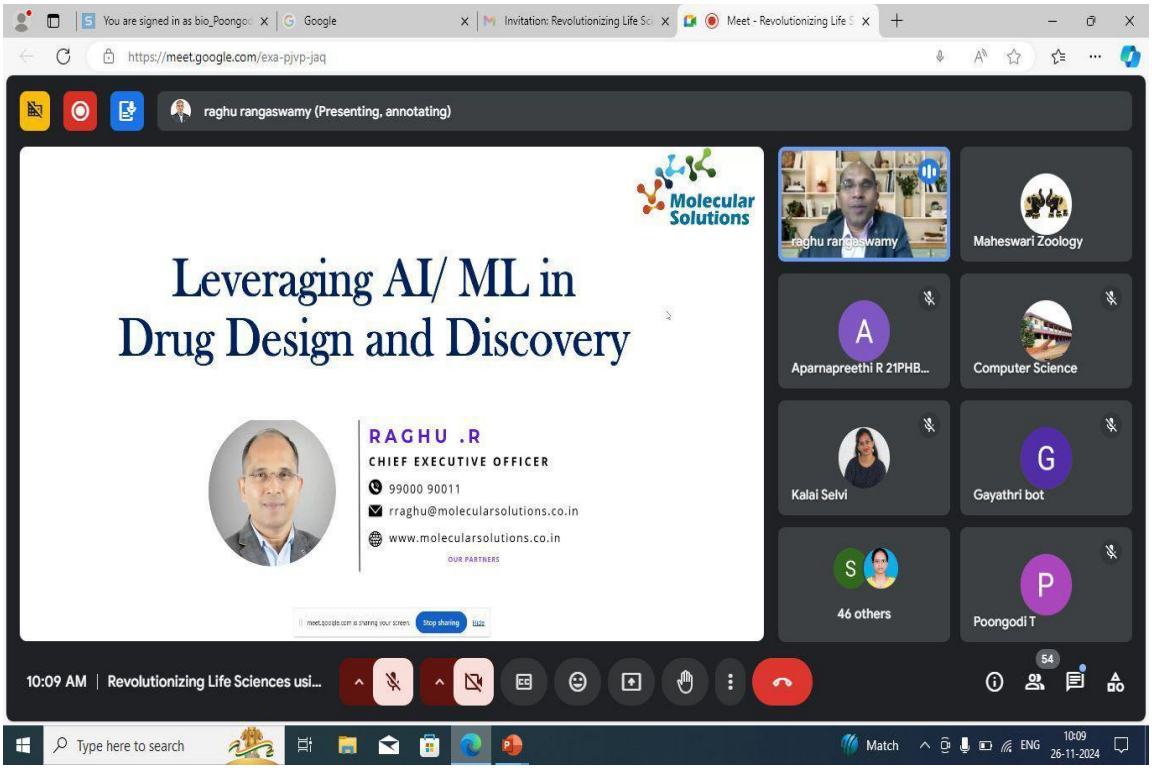
Day 2: 26.11.2024 Session - 1

Artificial Intelligence and Machine Learning in Drug Discovery

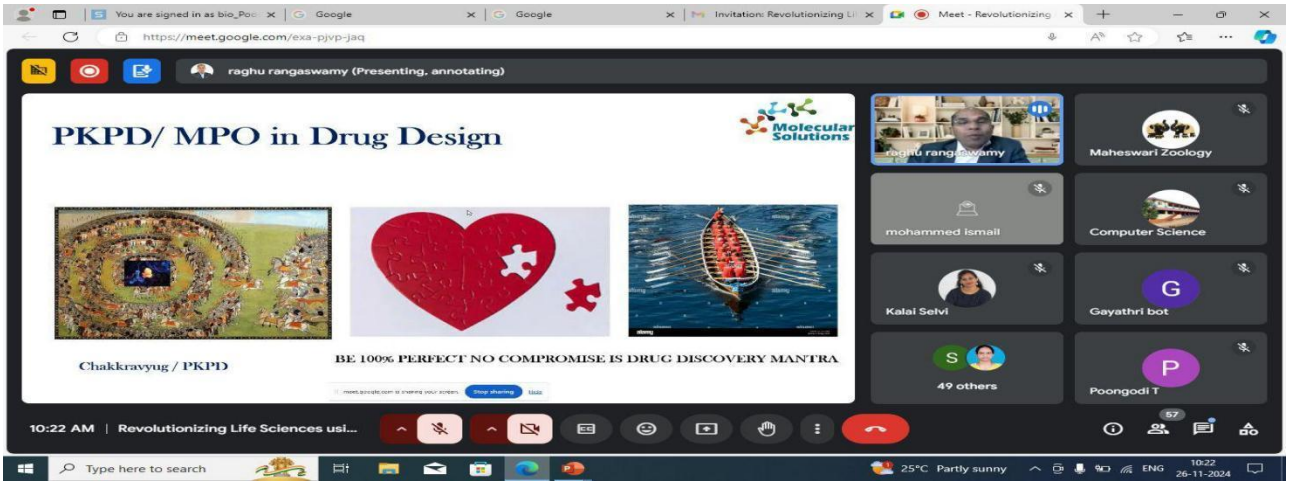
Mr. Raghu Rangaswamy, CEO, Molecular Solutions and Softwares private limited, Bengaluru, Karnataka.



The Day 2 program began with prayer song followed by the session – I addressed by Mr. Raghu Rangaswamy on the topic entitled “Artificial Intelligence and Machine Learning in Drug Discovery”. His brief explanation about artificial intelligence and machine learning in drug discovery was informative. He highlighted how these advanced technologies are reshaping pharmaceutical research and development by offering innovative solutions to longstanding challenges. A major focus was on the integration of AI into drug design processes. Using advanced algorithms, AI enables the generation of novel molecular structures tailored to target specific diseases. Retrosynthesis, a key aspect of drug development, was discussed as an area significantly enhanced by AI.



He gave insights on various AI tools like MARA, PKPD and other Generative AI tools. Therefore millions and trillions of molecules in drug discovery is possible in the AI Era. He discussed the chemical space docking which is used to build the fragments for particular targets was very interesting. He also emphasized to store all the findings in an electronic notebook which is the need of the hour. The talk ended with an optimistic note on the limitless potential of AI and ML in transforming the future of healthcare and pharmaceutical innovation.



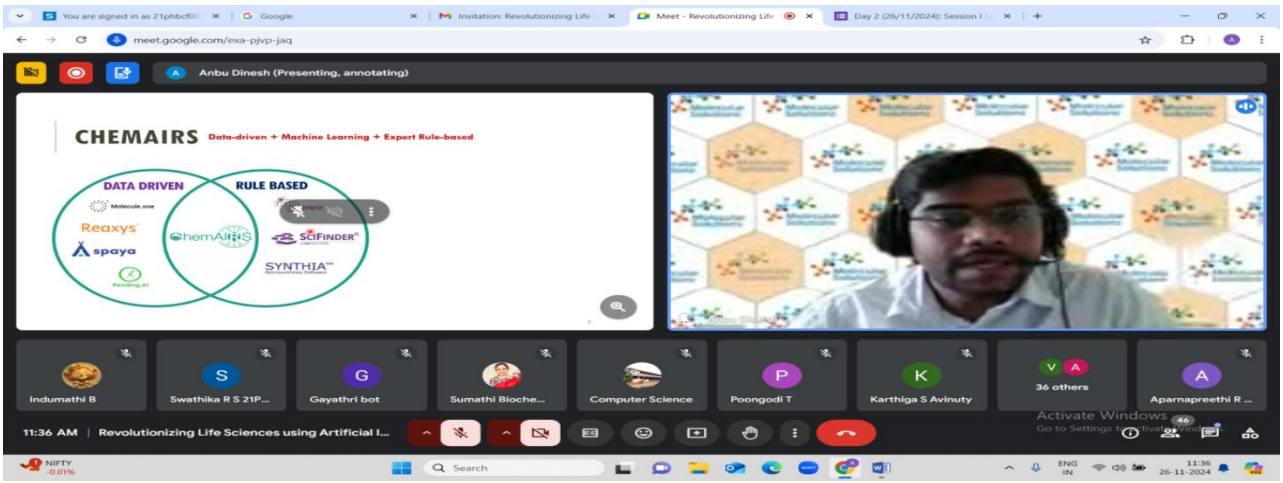
Takeaways from the session:

- AI approaches can accelerate the lead discovery and optimization
- Drug discovery is still an intensely human activity
- **Advancements in Drug Design**ing tools like MARA, PKPD and AI-driven molecular modeling have transformed protein structure prediction and the design of highly specific and effective therapeutic molecules.
- **The AI Era in Pharmaceutical is the** integration of AI and ML represents a paradigm shift in the pharmaceutical industry, offering the potential for groundbreaking advancements in precision medicine and innovative treatments for complex diseases.
- AI-powered retrosynthesis tools optimize synthetic pathways for drug development, making the process faster and more efficient.

Day 2: 26.11.2024 Session - 2

Hands on training in drug discovery using Chem AIRS software

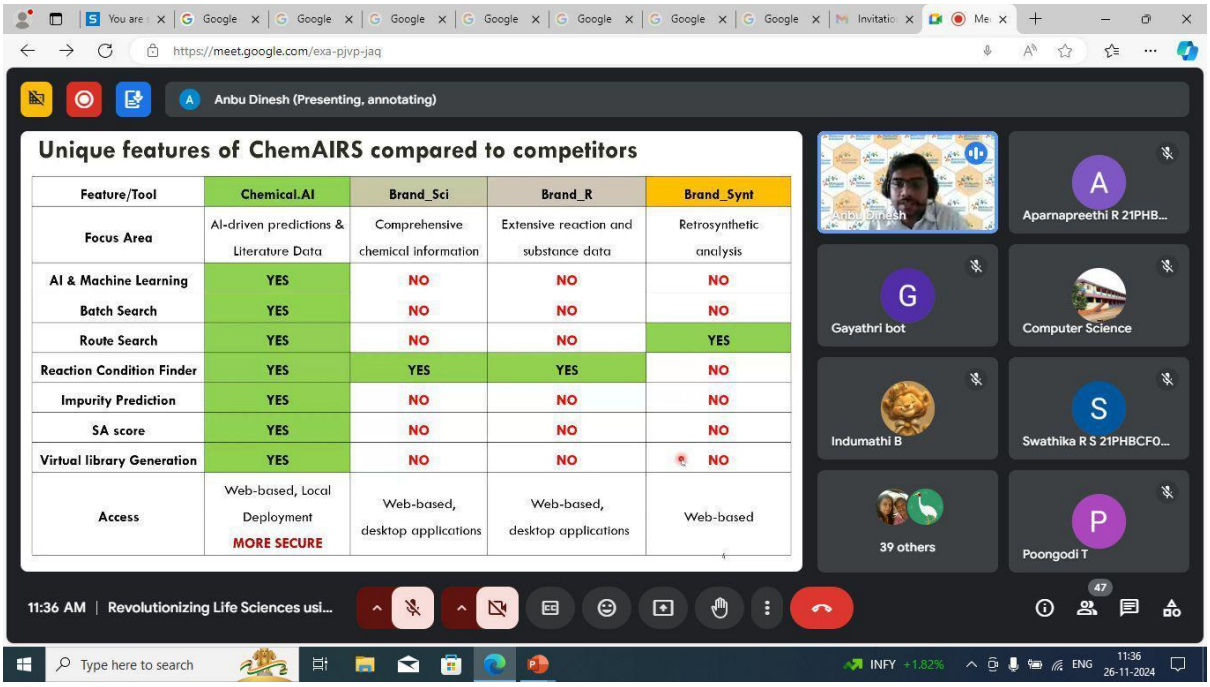
Mr. Anbu, Application Scientists, Molecular Solutions and Softwares private limited, Bengaluru, Karnataka.



A comprehensive demonstration of Chem AIRS Softwares in drug designing was presented by Mr. Anbu, He discussed about the unique features of Chem AIRS compared to other competitors Adaptive Features are:

- Focus area on AI-driven prediction and literature data
- AI and Machine learning Batch Search
- Route search
- Reaction Condition Finder
- Impurity Prediction
- SA score
- Virtual library generation
- Web based, local deployment access

He also discussed requirements of sequential steps and Modules in drug discovery. The salient features of search methods like retrosynthesis, condition search, process chemistry, forward synthesis, SA Score and Impurity prediction.



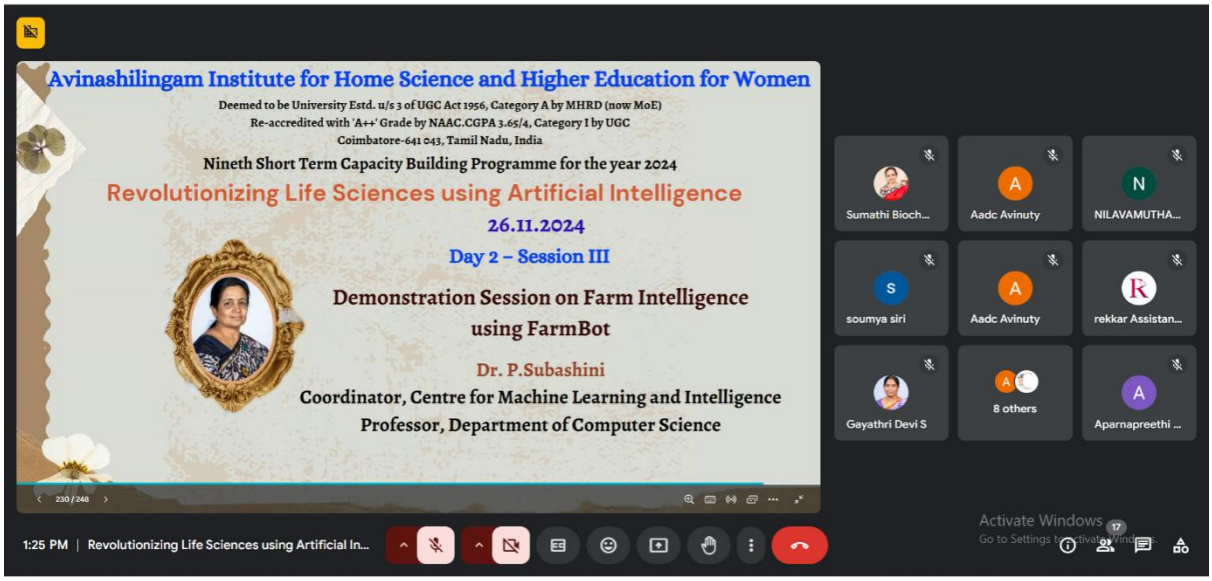
Takeaways from the session:

- Demo of Chem AIRS software for drug design
- Potential applications include Chem AIRS software **structure analysis, simulation, synthesis planning, and chemical informatics.**

DAY 2: 26.11.2024 Session-3

Demonstration session on Farm Intelligence using FarmBot

Dr. P. Subashini, Co-Ordinator, Centre for Machine Learning and Intelligence, AIHSHEW
Ms. Rathipriya, Technical Assistant, Centre for Machine Learning and Intelligence, AIHSHEW



The demonstration session on "Farm Intelligence using FarmBot"was delivered by Ms. Rathipriya, Technical Assistant, Centre for Machine Learning and Intelligence. She highlighted the history, hardware, and working mechanism of this innovative precision agriculture tool. The first model of FarmBot was introduced in 2014 by Rory Aronson, which was inspired by CNC machines and aims to make precision agriculture accessible to small-scale farmers and educators. The present farmbot model was built on an open-source platform. It has evolved to integrate advanced sensors, modular hardware, and cloud connectivity. She explained on how the FarmBot system comprises a rail-and-gantry structure for precise movement, a multifunctional toolhead for sowing, watering, and weeding, and a control unit powered by Raspberry Pi or Arduino and collection of real-time data for efficient farming and is equipped with soil and environmental sensors.

She also explained user program tasks using an intuitive web application, enabling activities such as precision planting, direct watering, weed removal, and plant monitoring. The toolhead's functionalities adapt to specific crop needs, while its camera monitors growth and detects issues. Data from sensors is analyzed in the cloud, offering insights for optimal crop management. Her demonstration on working on FarmBot promotes sustainable practices by conserving resources and reducing labor. In terms of its working mechanism, FarmBot operates by executing pre-programmed tasks that users create through the web application.

She also highlighted the setup and working of FarmBot. The FarmBot moves along its rail system to perform specific tasks at designated locations in the garden. It uses soil moisture readings to determine when and where to water plants, ensuring precise irrigation. For weeding, FarmBot's camera identifies unwanted plants, and the toolhead removes them either manually or with specialized tools. These concepts are well explained by Rathipriya madam. Additionally, FarmBot can carry out tasks like seed planting based on geolocation, ensuring that seeds are placed at the

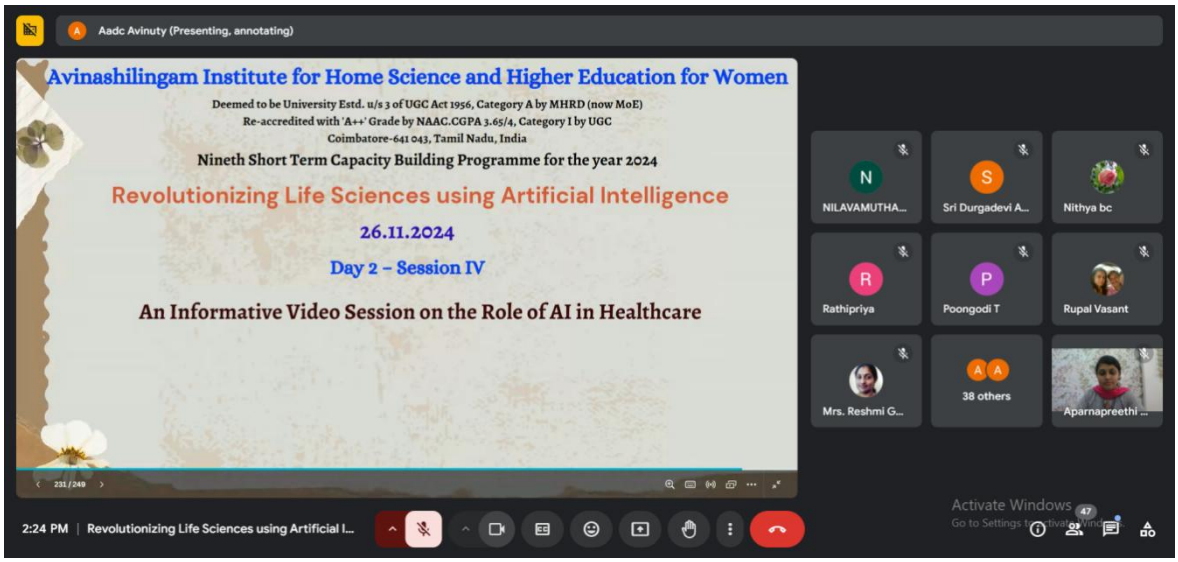
correct depth and distance. The system's ability to analyze real-time sensor data allows it to adjust operations dynamically, optimizing resources like water and nutrients. This technology exemplifies how automation and data-driven tools transform small-scale farming into a more efficient and sustainable practice.

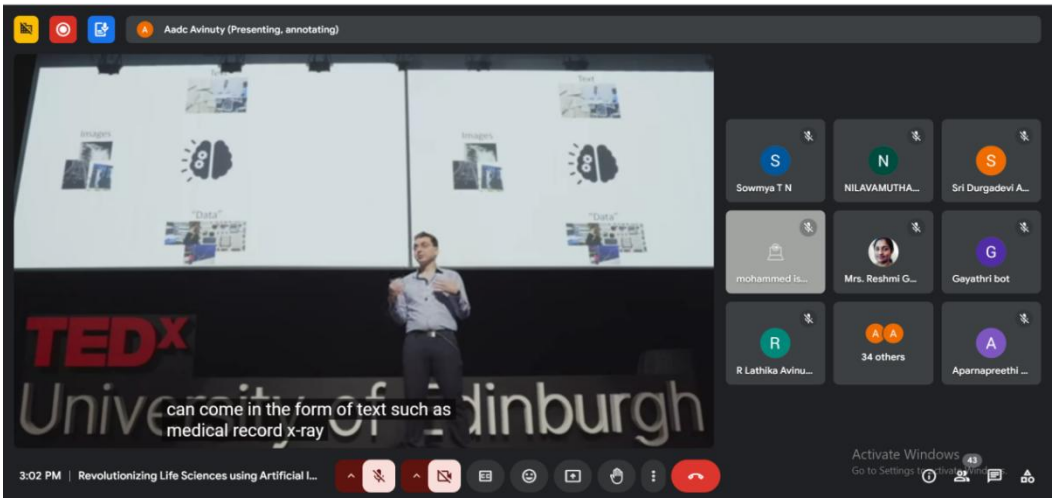
Takeaways from the session:

- FarmBot is a significant innovation in precision agriculture, promoting resource efficiency and sustainability.
- Its user-friendly design and open-source nature make it an ideal tool for education, research, and small-scale farming.
- The integration of technology with farming highlights the potential for smarter, data-driven agricultural practices.

DAY 2: 26.11.2024 Session-4

An Informative Video Session on the Role of AI in Healthcare





The first video of Leonardo Castorina's talk on AI in Healthcare: The Next Frontier explores how artificial intelligence transforms healthcare by addressing critical challenges and unlocking new possibilities. The key points from the Video session are that AI can automate administrative tasks, such as note-taking and record-keeping, alleviating the workload on healthcare professionals and reducing burnout. AI analyses large datasets and identifies patterns that contribute to discovering new diseases and treatments. He emphasizes that AI in healthcare must prioritize fairness, transparency, privacy, accountability, and reliability to ensure it supports rather than replaces healthcare professionals.

The Second Video of NavidToosi Saidy on "Artificial Intelligence in healthcare: Opportunities and Challenges" emphasizes that Artificial Intelligenceis revolutionizing healthcare by enabling faster, more accurate diagnosis, personalized treatment, and efficient resource management. It leverages advanced algorithms, machine learning, and big data analytics to enhance patient outcomes, optimize clinical workflows, and reduce costs.

Takeaways from the session:

- AI presents transformative opportunities in healthcare, addressing various challenges and is crucial to ensure its safe, effective, and equitable implementation.

DAY 2: 26.11.2024 Session-5

Write and Edit Manuscripts, cite relevant sources, and identify journals

Dr. Deepa Jaganathan, Founder, DeebiotechAcademic Research Services (DAR), Chennai, Tamil Nadu

Dr. Deepa Jaganathan's talk focussed on "Write and Edit Manuscripts, Cite relevant Sources and Identify Journals". She discussed the transformative role of Artificial Intelligence (AI) in advancing the field of biology, particularly in areas related to academic and research workflows. The lecture highlighted how AI tools and technologies enable biologists and researchers to streamline tasks ranging from literature review to grant writing, ultimately accelerating discovery and innovation.

She also gave detailed points on AI in Scientific Writing, which includes Literature Review: Tools like AI-powered such as Elicit, Consensus, Connected Papers, and Paper Digest. Etc., which assists in quickly finding relevant articles and summarizing large publications datasets. **Manuscript Preparation and Editing:** AI tools like Grammarly and SciWriter provide real-time grammar, structure, and scientific formatting suggestions. **Plagiarism Detection** Tools such as Quillbot, paperpal, and Trinka were recommended for ensuring originality.

Dr Deepa also explained AI in Learning and Conceptual Understanding. AI-driven platforms, such as ChatGPT and Bard were showcased for simplifying complex biological concepts. Use of visualization tools to enhance learning, such as creating custom infographics for intricate biological pathways were also elucidated. She shared her views and tools for Data Analysis and Visualization, which include Julius AI to read Excel and Google CV and Avidnote to read articles, write content and analyse data. Further, she explained a list of AI tools for reading assistance, creating presentations, image creation and grant writing. She demonstrated AI tools like Consensus, Google-Bard, Julius AI, and DALL.E-3.

Takeaways from the session:

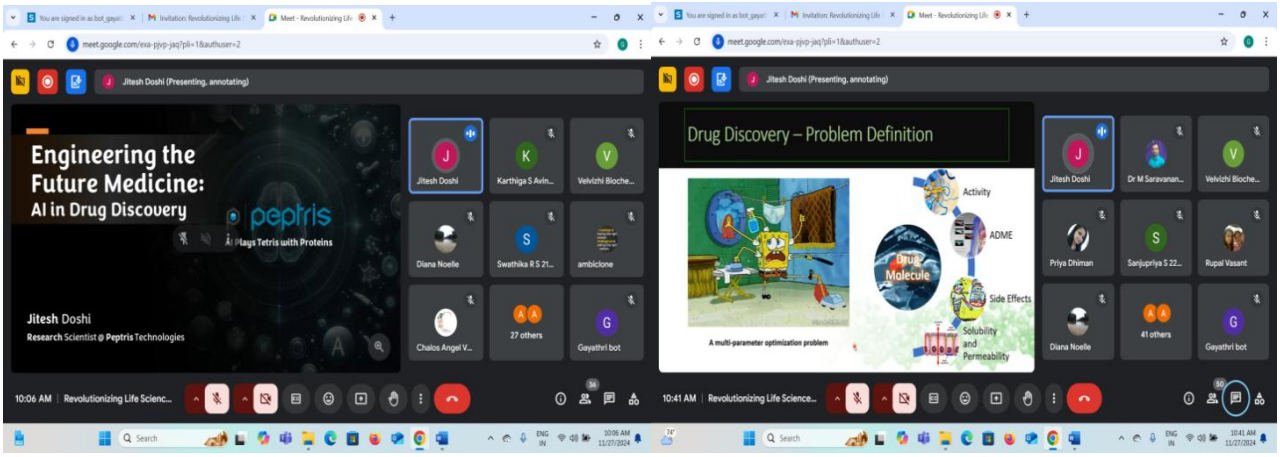
- AI tools streamline drafting, editing, and citation management, allowing researchers to focus on content quality and innovation. These tools help summarize, organize, and analyze vast amounts of literature, making identifying research gaps and trends easier.
- AI improves writing clarity, grammar, and structure, ensuring professional and impactful communication of research findings.
- Automating repetitive tasks like formatting, reference generation, and plagiarism checks boosts productivity and reduces manual effort.

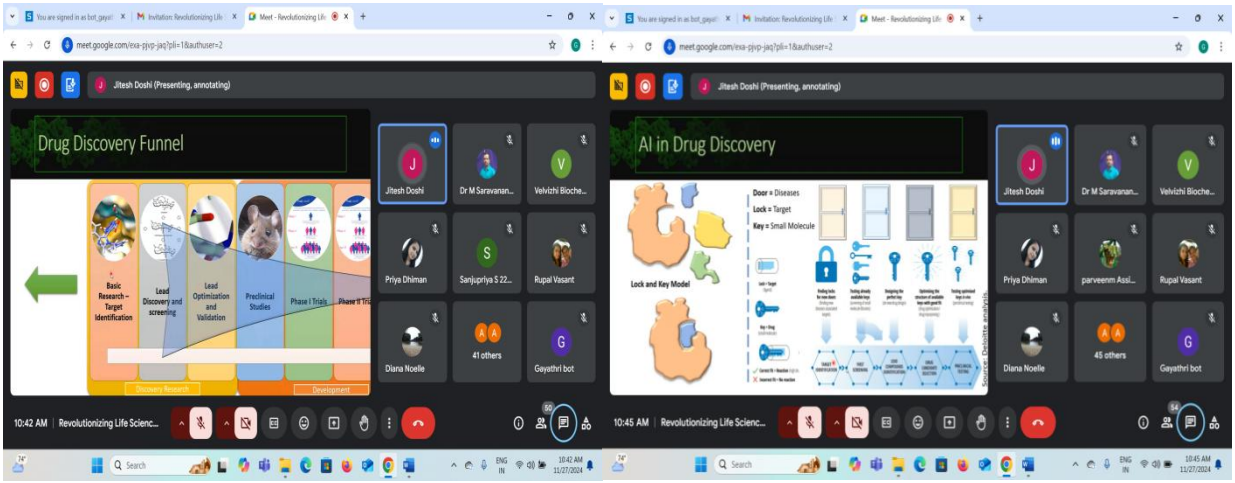
DAY – 3 - AI in Agriculture and Livestock

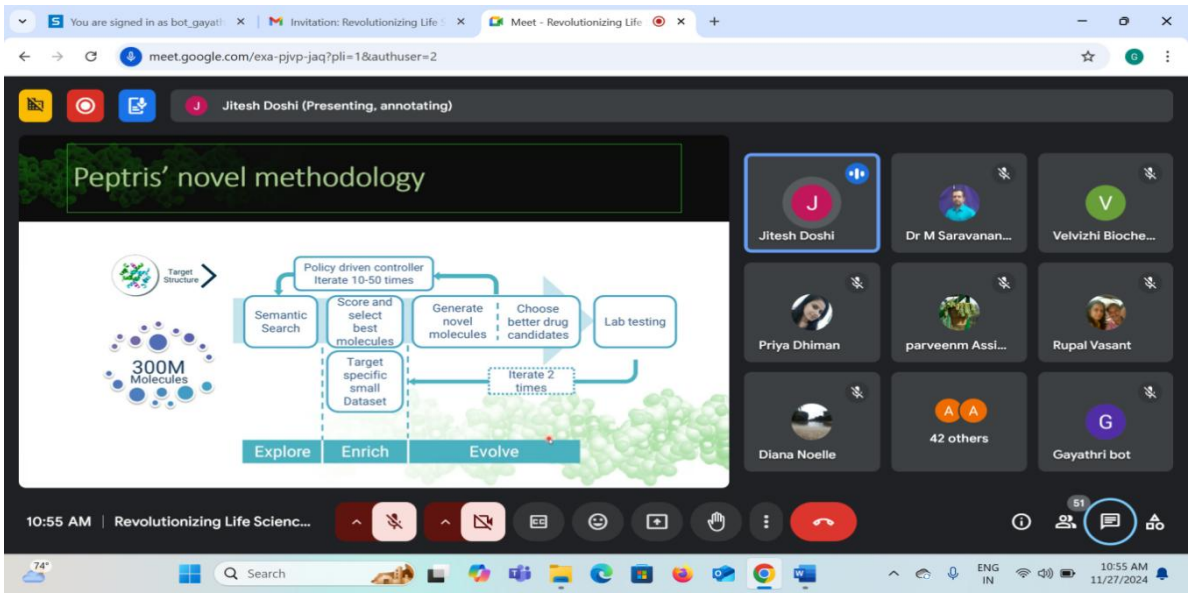
DAY 3: 27.11.2024 FN Session- 1

AI in Drug Discovery

Dr.Jitesh Doshi, Research Scientist, Peptris Technologies Pvt. Ltd.
Bengaluru, Karnataka







Dr. Jitesh Doshi talk was focused on the role of Artificial Intelligence (AI) in the lead molecule optimization for the development of new drugs to battle against diseases. The talk has highlighted the application of AI aided software to screen the compounds for their activity, to measure the ADMEt levels of the compound screened from the databases. He also discussed the importance of solubility of the lead compounds to proceed those active compounds to the clinical trials. Sir also briefly discussed the drug discovery funnel. The drug discovery funnel is a structured process used to identify and develop new therapeutic compounds. It begins with **target identification and validation**, where biological targets linked to a disease are identified. This is followed by **hit discovery** through high-throughput screening or computational methods. Promising compounds, or "hits," are optimized in the **lead identification and optimization** phase to improve their efficacy, safety, and pharmacokinetics.

He also gave an insight about AI in drug discovery, which mainly focuses on the theory of lock and key hypotheses in drug development. He emphasized how AI-driven research accelerates innovation, especially during times of crisis, pointing to disease outbreak conditions, which have frequently acted as catalysts for groundbreaking advancements.

His talk also enlightened recent advancements, such as AI-driven synthesis of novel compounds from the earlier reported scaffolds. Additionally, the technology employed in his lab was explored in detail. A heat map illustrating the potential applications of AI in drug discovery was presented, providing an in-depth explanation of the entire pathway—from lead optimization to drug development and eventual market introduction. The talk concluded by highlighting the useful tools and the library for drug lead optimization.

Takeaways from the session:

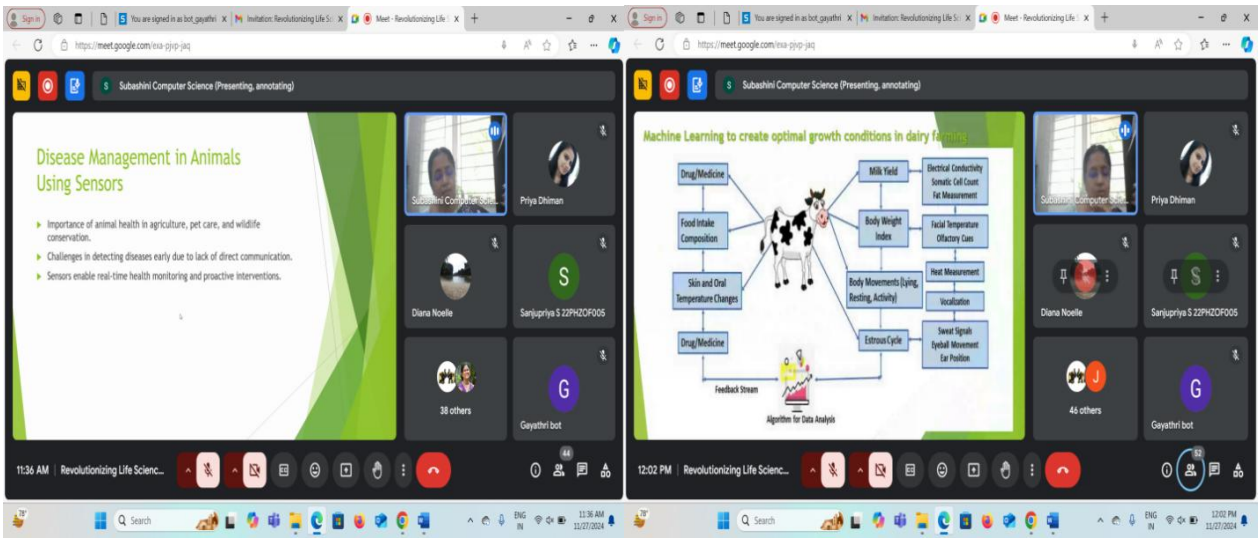
- AI and data driven sciences are evolving as a promising field to augment the medicinal chemists and researchers in drug discovery.
- Experts in pharmaceutical sciences, who understand drugs and targets well, should step up and equip and enable themselves with new tools to enhance the knowledge discovery process.

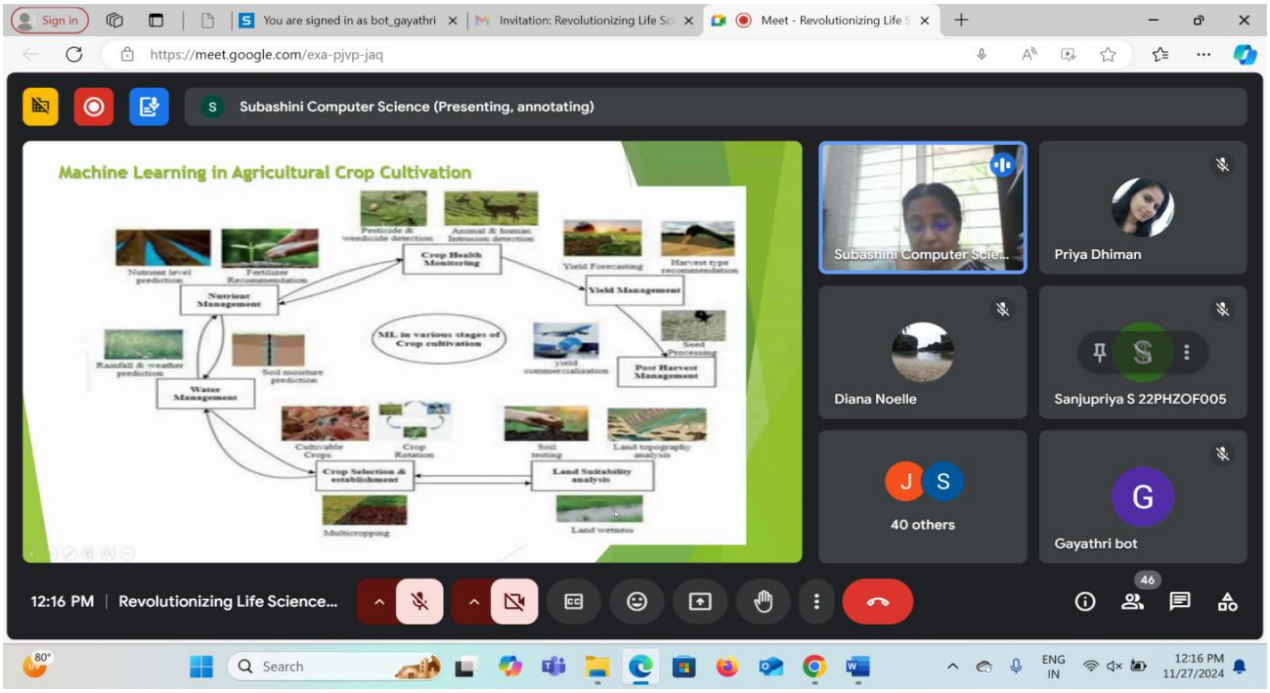
- With more accessible frameworks for AI development and tools for drug discovery, researchers need to get involved more in testing, validating and improving the methods.

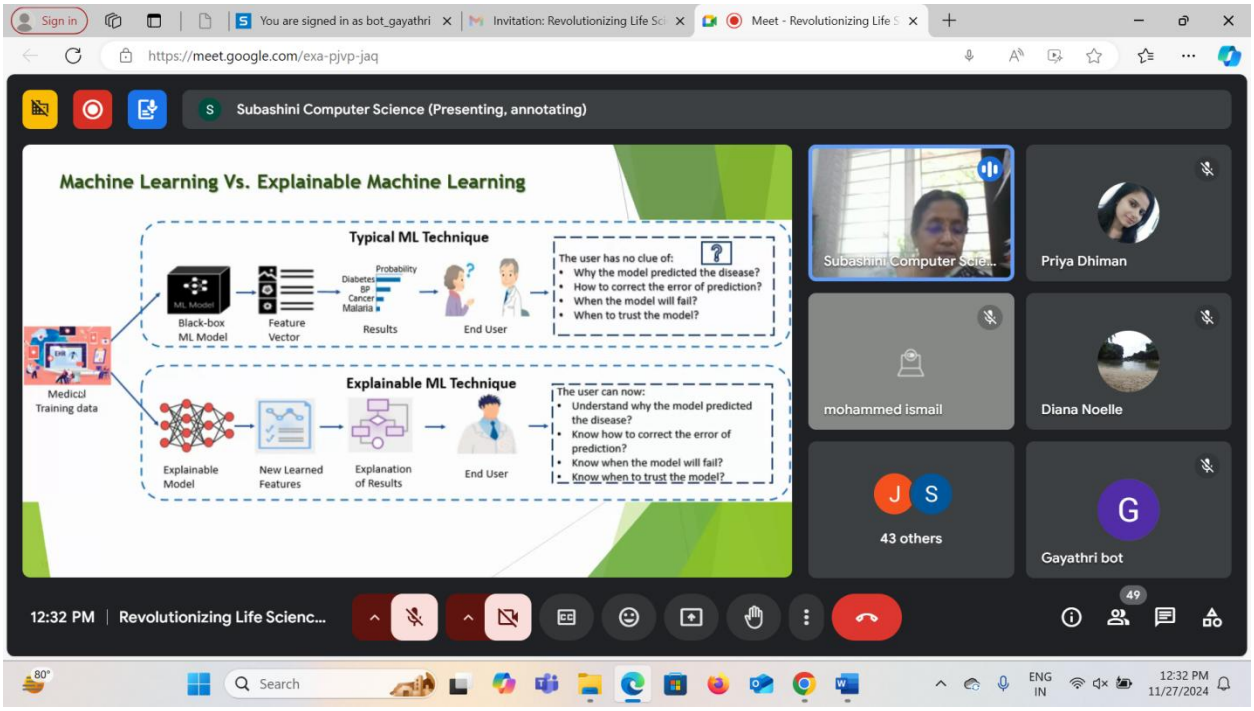
DAY 3: 27.11.2024 FN Session-2

Application of Artificial Intelligence, Machine learning and Internet of Things in Animal Agriculture and Integrated Farming

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.







Dr. P. Subashini has given a detailed talk on the Application of Artificial Intelligence, Machine Learning and Internet of Things in Animal Agriculture and Integrated Farming. She emphasized the importance of disease management in animals through the use of sensors. Various types of sensors are now being employed to monitor animal health conditions. These devices analyse real-time data and enable non-invasive data collection, offering continuous monitoring of health and behaviour. Further the talk highlighted the challenges and the limitations for the use of AI in Disease management.

She has moved her talk towards the use of machine learning to create optimal growth conditions in dairy farming. The importance of optimizing feed efficacy, crop cultivation, and land suitability assessment was discussed. Further the talk continued to explore the utilization of Machine learning in agricultural crop cultivation. Machine learning revolutionizes crop cultivation by enabling precise predictions of yield, disease outbreaks, and optimal planting schedules, enhancing efficiency and sustainability.

Takeaways from the session:

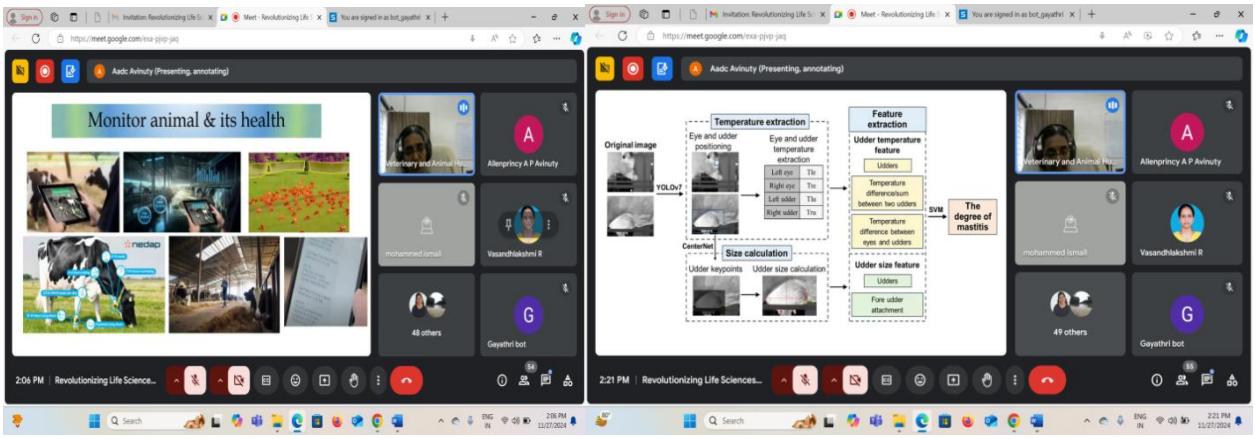
- Artificial Intelligence (AI) is transforming agriculture by enabling smarter, more efficient practices. AI-powered tools help monitor crop health, predict yields, and optimize irrigation and fertilization.
- Precision farming technologies, driven by AI, analyse data from drones, sensors, and satellites to guide decision-making.

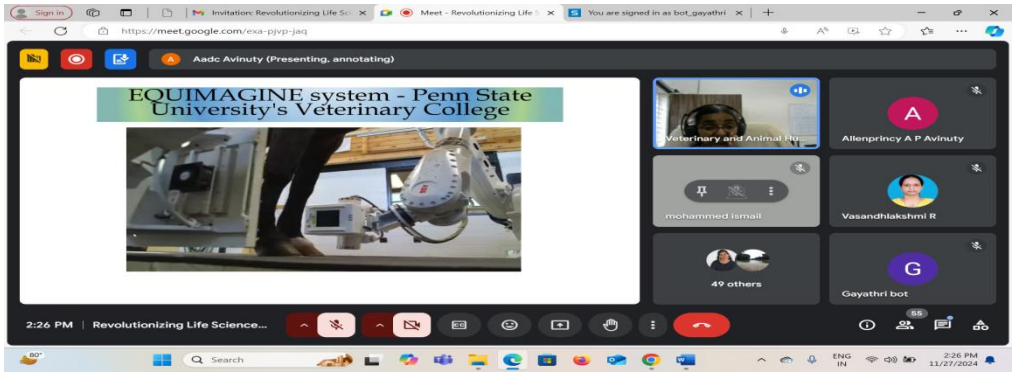
- Additionally, AI aids in pest detection, soil analysis, and climate forecasting, enhancing sustainability and productivity. By reducing resource waste and improving resilience to environmental challenges, AI is shaping the future of agriculture.

DAY 3: 27.11.2024 Session-3

AI in Livestock Management

Dr.V. Uma, Professor and Head, Dept. of Veterinary and Animal Husbandry Extension Education,Veterinary College and Research Institute, Udumalpet





Dr. V. Uma has started her session with a brief outline about the cattle farming in veterinarians' point of view, owners point of view and the role of technology integration in farming. The talk has emphasized the productivity, health of different species and the environmental impact on the breeding of cattle. She has developed into the role of technology integration in the management of cattle. The role of AI in monitoring animal health, nutrition optimization, feed consumption optimization was discussed. Further, the use of AI in predicting the cattle diseases at the prior conditions was explained. In addition, the new inventions integrating AI technology to monitor the heartbeat and the lung conditions were discussed.

The imaging techniques to monitor the udder conditions of the cattle was explained through a video. She has touched on the role of the EQUIMAGINE system to visualize the health conditions of cattle in Penn state University's Veterinary college. While concluding the session she has emphasized the use of AI and ML in livestock sectors in Indian conditions.

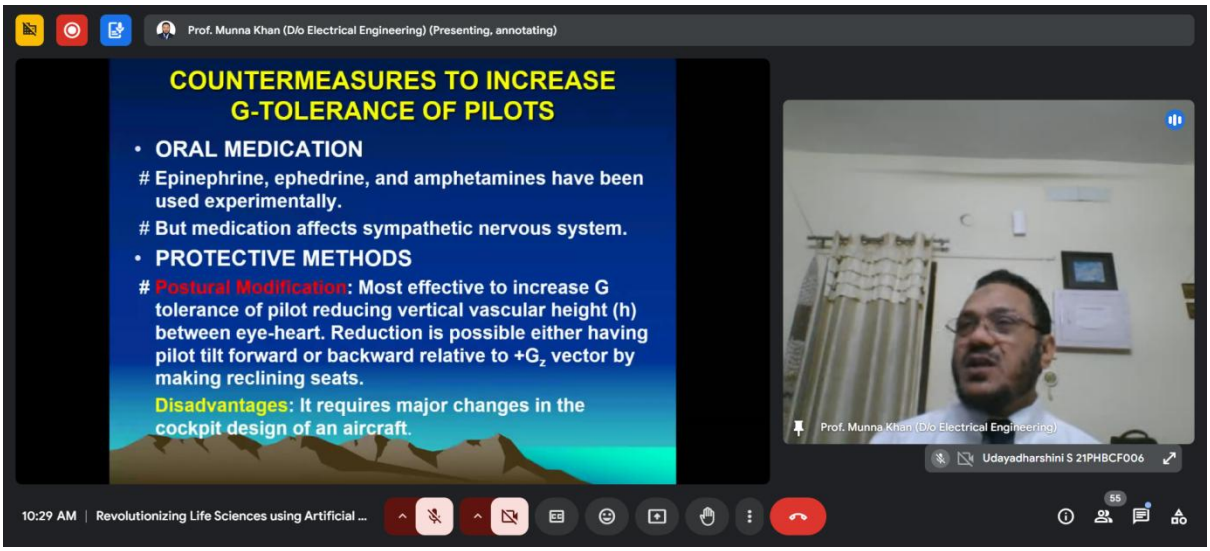
Takeaways from the session:

- Artificial Intelligence (AI) is revolutionizing livestock management by enhancing efficiency and animal welfare.
- AI-powered tools monitor animal health, behaviour, and nutrition through sensors and cameras, enabling early detection of diseases and stress. Automated systems optimize feeding schedules, track growth rates, and predict breeding cycles.
- Advanced analytics help farmers manage herds more effectively, reducing costs and improving productivity. By integrating AI, livestock management becomes more sustainable, ensuring better resource utilization and improved animal care.

DAY 4: 28.11.2024 Session-1

Prediction of Parameters for Simulated Body Segments of an Aircraft Pilot during High G (Gravity) Maneuvers

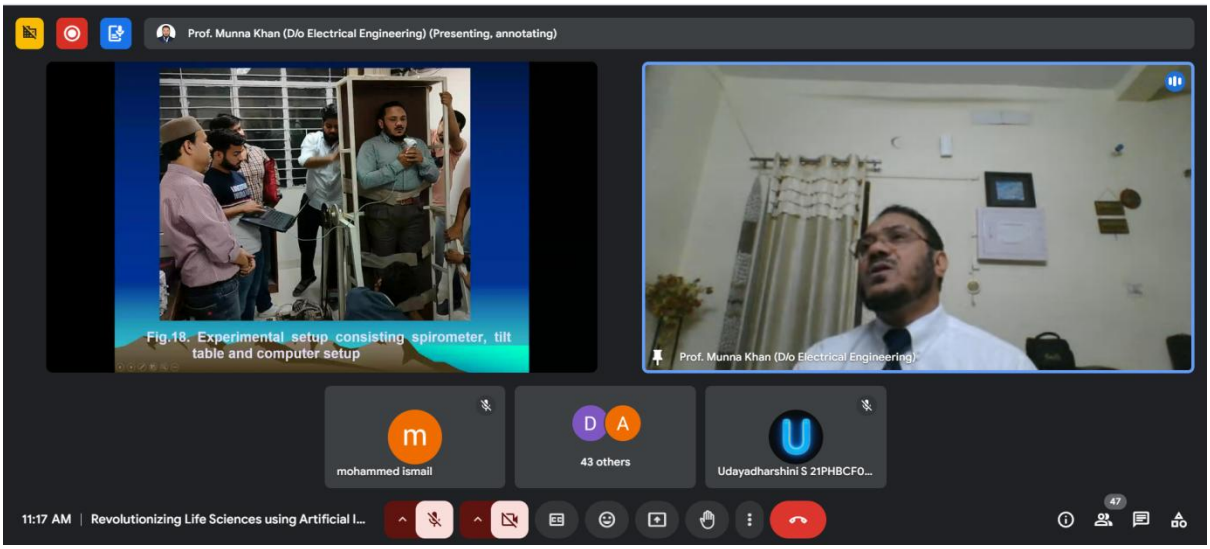
Dr. Munna Khan, Professor, Electrical Engineering Department, JMI, Central University, New Delhi



Professor Munnah Khan presented an insightful session on **Prediction of Parameters for Simulated Body Segments of an Aircraft Pilot during High G (Gravity) Maneuvers**, focusing primarily on the effects of G-forces on blood pressure and physiological responses. He explained how sustained high G-forces in modern aircraft can lead to blood pooling, reduced G-tolerance, and risks such as blackout and loss of consciousness. He also detailed countermeasures, including positive pressure breathing, postural adjustments, and water immersion protection, along with advanced anti-G suits, such as programmable logic controller (PLC)-based systems, to stabilize blood pressure during high G maneuvers.

Highlighting his research, Professor Khan described experiments using rhesus monkeys on a tilt table to study blood pooling and cardiovascular adjustments under simulated G-forces. He also discussed bioelectrical impedance analysis (BIA) for modelling leg segments to analyze blood pressure regulation and segment-specific responses in pilots. Additionally, he explained the impact of G-forces on respiratory function through spirometric data, illustrating how lung capacity changes during the push-pull effect.

The lecture was enriched with videos bridging the gap between theoretical concepts and real-world applications. His emphasis on integrating physiological research, computational modelling, and technological innovation was both enlightening and inspiring for the audience.



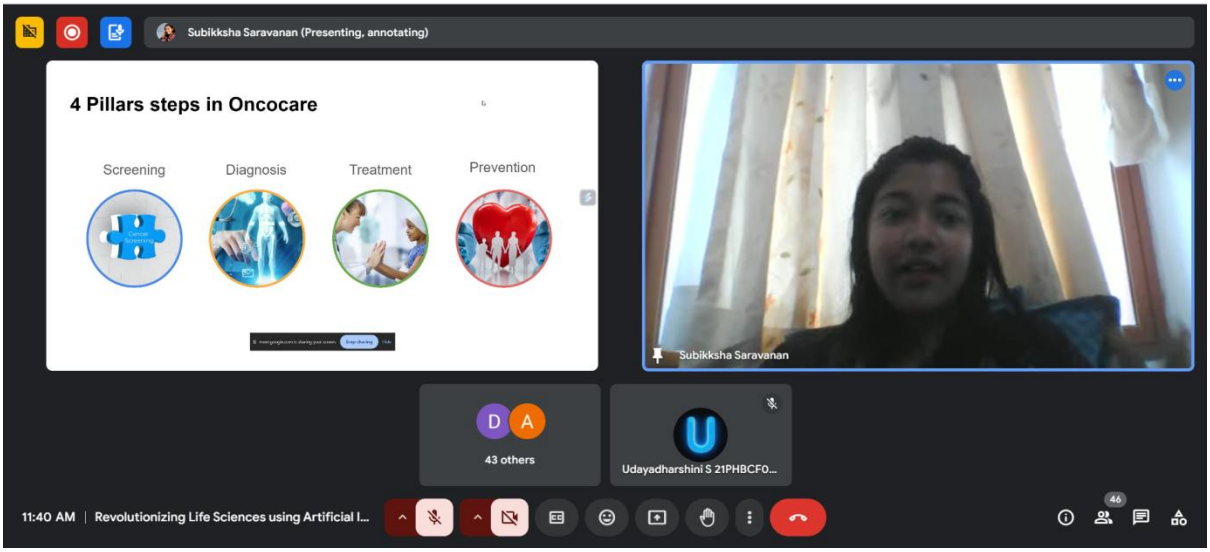
Key Takeaways

1. **Blood Pressure Stabilization:** Advanced anti-G suits, such as PLC-based designs, play a critical role in regulating blood pressure during high G maneuvers.
2. **G-Force Physiological Effects:** G-forces cause significant cardiovascular challenges, including blood pooling, requiring tailored interventions.
3. **Animal Models in Research:** Studies using rhesus monkeys on tilt tables provide valuable insights into blood pressure and circulation under G-force conditions.
4. **Respiratory Function Analysis:** Spirometry highlights the impact of G-forces on lung capacity and the importance of countermeasures for respiratory efficiency.

DAY 4: 28.11.2024 Session-2

Role of AI in oncology

Ms. Subiksha, Research Fellow, Adyar Cancer Institute (W.I.A), Adyar& IIT Madras

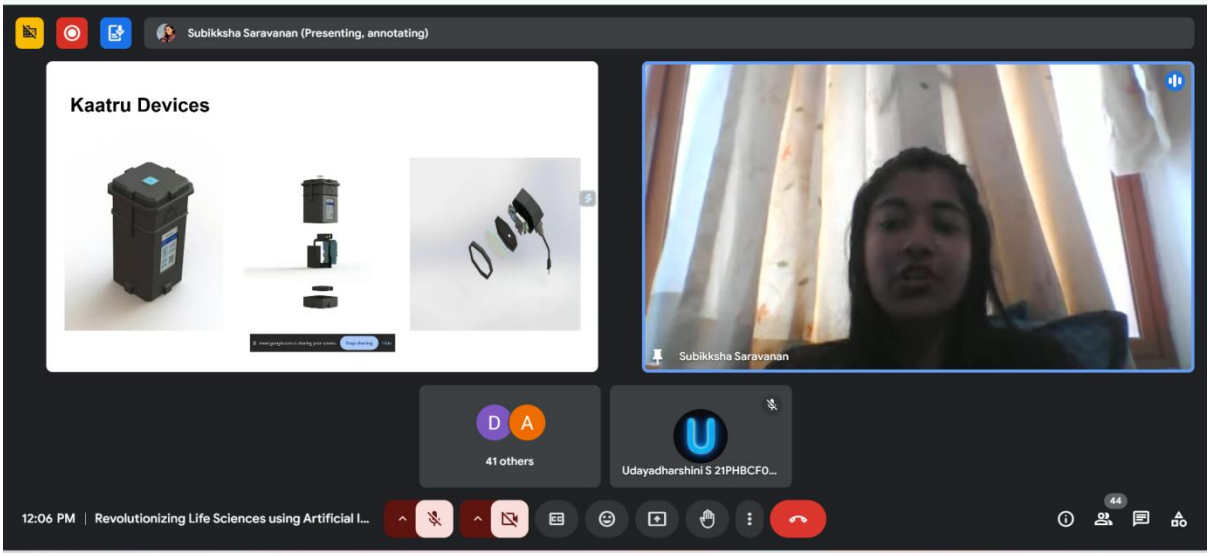


Ms. S. Subiksha delivered an outstanding and enlightening session on the "**Role of AI in Oncology"**, captivating the audience with her knowledge and insights. The session was a comprehensive exploration of the integration of artificial intelligence in oncological care, emphasizing its transformative potential across various stages of cancer management.Ms.Subiksha outlined the numerous advantages AI brings to oncology, such as improved accuracy, efficiency, and personalization in cancer care.She structured her talk around the four essential pillars in oncology namely:

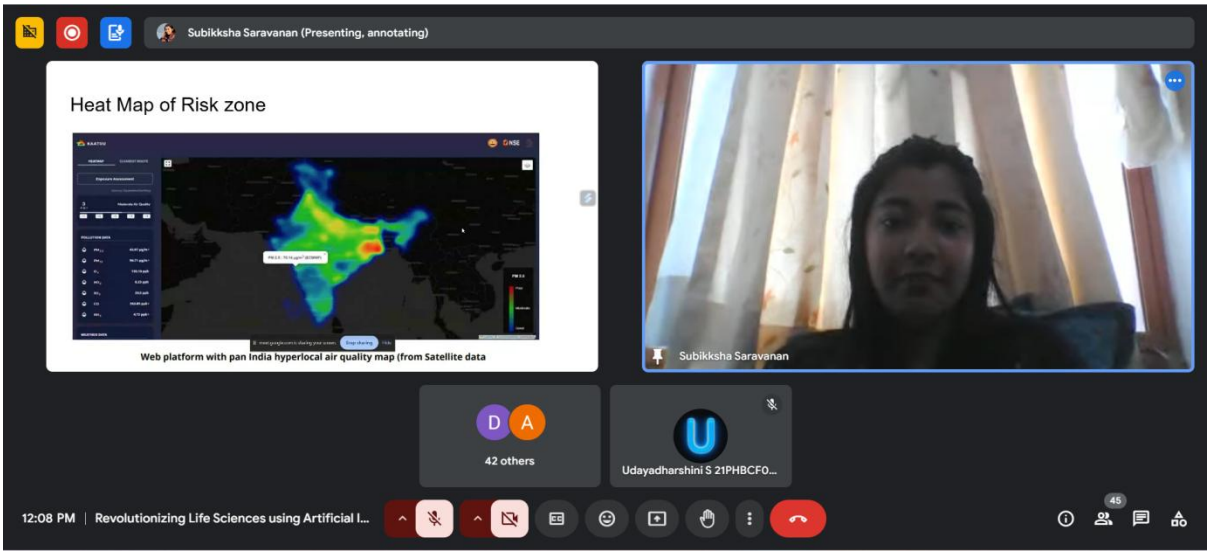
- **Screening:** Emphasized the role of AI in early detection, particularly for lung cancer.
- **Diagnosis:** Shared in-depth insights into breast cancer diagnostics using the **GENIUS (Genomic and Image Unified System for Breast Cancer Diagnostics) tool**. She explained the PRISMER architecture used in GENIUS and highlighted how it aids in precise diagnostics and reporting. Ms. Subiksha also discussed machine learning (ML) models for predicting breast cancer proliferation scores, providing an overview of model performance and their clinical significance.
- **Treatment:** Focused on leukemia, particularly the relapse prediction tool **PREPARE ALL**. This innovative app predicts the relapse risk score for pediatric acute lymphoblastic leukemia (ALL) patients, enabling risk stratification and better-informed treatment plans.

- **Prevention:** Stressed the importance of lung cancer prevention by addressing environmental pollution. She highlighted innovative solutions, including IoT-based systems for air quality monitoring.

Ms. Subhiksha discussed the **Air Quality Assessment** for the development of mitigation strategies to reduce lung cancer risks caused by environmental pollution. She emphasized on a groundbreaking device called **'Kaatru Device'** which can be attached to two-wheelers to monitor air quality and generate heat maps which enables it to identify high-risk zones.



She also demonstrated a web platform **Air Quality Mapping** that provides a heatmap of risk zones across India using satellite data. This real-time tool helps identify routes with high air impurities, offering actionable insights for public health and urban planning.



Ms. Subiksha's session was a perfect amalgamation of cutting-edge technology, medical insights, and environmental awareness. Her detailed discussion on AI applications in oncological screening,

diagnosis, treatment, and prevention showcased the incredible potential of the technology to revolutionize healthcare.

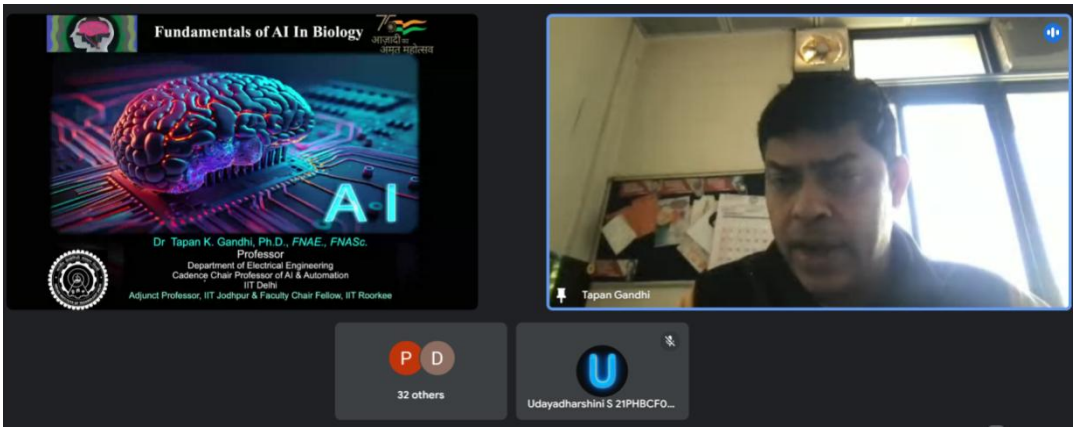
Takeaways from the session:

1. **AI's Impact on Oncocare:** AI enhances cancer care across four pillars—screening, diagnosis, treatment, and prevention—improving accuracy, efficiency, and personalization.
2. **Innovative Diagnostic and Treatment Tools:** Tools like GENIUS (breast cancer diagnostics) and PREPARE ALL (leukemia relapse prediction) showcase AI's potential in transforming cancer diagnosis and risk stratification.
3. **Focus on Prevention and Environmental Health:** AI-driven air quality monitoring innovations, like the Kaatru device and hyperlocal air quality mapping, addresses the environmental causes of lung cancer.
4. **Future of Interdisciplinary Collaboration:** Integrating AI with genomic, imaging, and environmental data fosters precision oncology and large-scale cancer prevention strategies.

DAY 4: 28.11.2024 Session-3

Fundamentals of AI in Biology

Prof. Tapan Kumar Gandhi, Department of Electrical Engineering, IIT Delhi, & Cadence Chair Professor of Automation & AI



Prof. Tapan Kumar Gandhi delivered a talk on the "Fundamentals of AI in Biology" exploring the topics presented on Artificial Intelligence (AI), deep learning, machine learning, and their intersections with science, engineering, medicine, and technology. The speaker highlighted both the theoretical underpinnings and practical applications of these fields, emphasizing the importance of interdisciplinary collaboration. Special attention was given to research in vision, such as understanding color blindness, and how brain-inspired learning is shaping the future of AI. These technologies were described as critical drivers of innovation in fields ranging from autonomous

systems to healthcare diagnostics. The speaker emphasized that improving our understanding of human vision could lead to transformative applications, such as the creation of an artificial silicon retina. This innovation could restore vision to individuals with degenerative eye conditions, representing a significant leap in medical technology. Mr. Gandhi explained how studying the **brain's circuitry** and learning mechanisms provides valuable insights for advancing AI systems.

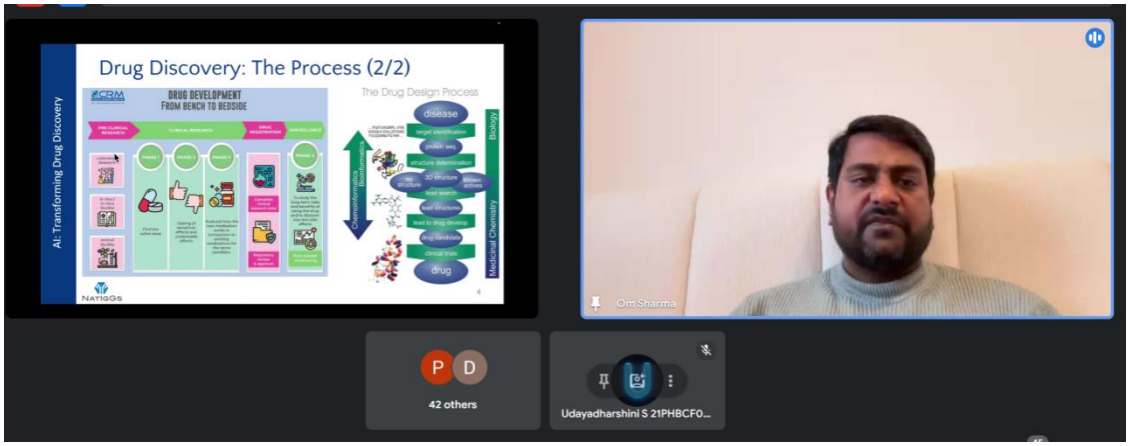
The discussion extended to understanding intelligence itself, positing that unraveling the mysteries of the brain could lead to a new era of **artificial intelligence** that mimics human cognition. The talk painted a compelling vision of how advancements in understanding human intelligence and vision mechanisms can drive innovative applications in medicine, technology, and beyond. This interdisciplinary synergy offers a pathway toward solving some of humanity's most pressing challenges.

Takeaways from the session:

- The integration of AI, deep learning, machine learning, and fields like science, engineering, medicine, and technology is essential for solving complex global challenges.
- Investigating the mysteries of the human brain and intelligence could unlock a new era of AI development, enabling systems to replicate human cognitive abilities.
- The focus on innovation, inspired by biological systems, underscores a promising future for technology and medicine

DAY 4: 28.11.2024 Session-4

Dr Om Prakash Sharma
Head of Bioinformatics, NatIgGs GmbH, Germany



"The Role of Artifical Intelligence in drug discovery: from Bench to Bedside" by eminent speaker Dr Om Prakash Sharma, who delivered a comprehensive lecture on the particulars of drug discovery, detailing its key processes, including target identification, lead discovery, preclinical studies, clinical trials, and regulatory approval. He emphasized the progression of drug development "from bench to bedside," providing a clear understanding of the journey from initial research to patient care. Dr. Sharma further elaborated on disruptive technologies that are expected to revolutionize healthcare in

the next two years, such as Artificial Intelligence (AI), Big Data analytics, Application Programming Interfaces (APIs), digital platforms, and wearable technologies like smart watches. He highlighted the key role of AI in drug discovery, discussing its ability to enhance efficiency, accuracy, and speed, as well as its diverse applications in predictive modeling, target identification, and lead optimization.

Dr. Sharma presented notable case studies from Insilico Medicine, such as the identification of a therapeutic target for pulmonary fibrosis within 18 months and the development of a novel 3CL protease inhibitor as a preclinical candidate for COVID-19 treatment. He also addressed the challenges inherent in AI-driven drug discovery, including issues related to data quality, algorithmic biases, and regulatory hurdles, while highlighting the vast opportunities for innovation. Dr. Sharma concluded with a forward-looking perspective, discussing emerging tools like DeepChem, DeepTox, AlphaFold, and Chemputer, which are set to further advance the field by enabling breakthroughs in molecular design, toxicity prediction, protein structure analysis, and automated synthesis.

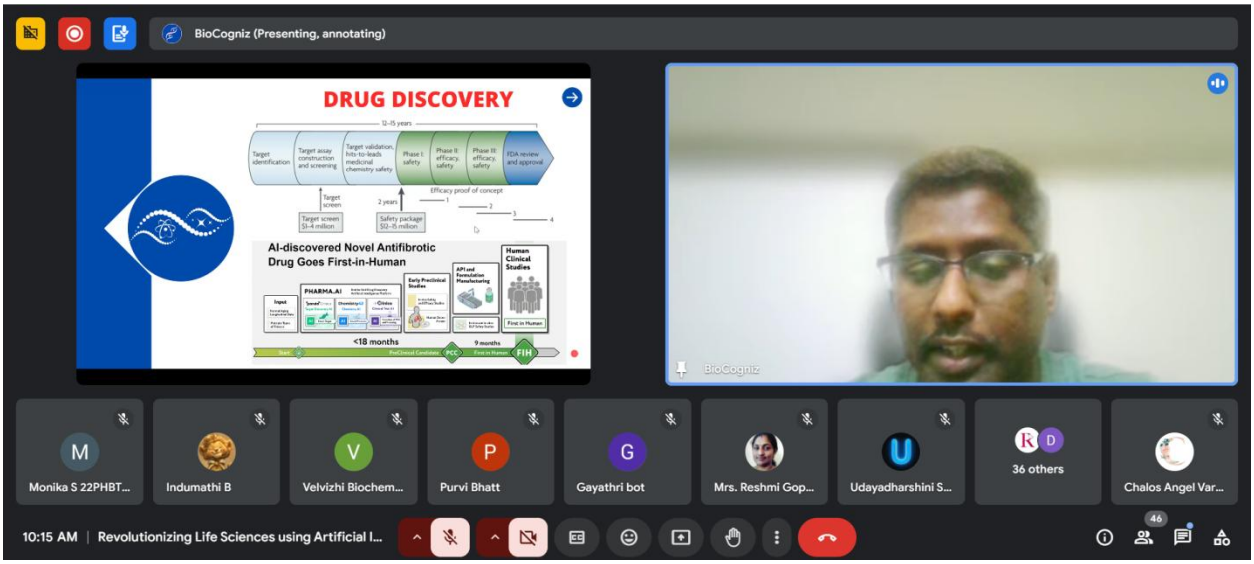
Takeaways from the session:

- Drug development journey from target identification and lead discovery to preclinical studies, clinical trials, and regulatory approval.
- Transformative technologies like AI, Big Data, APIs, digital platforms, and wearable devices, which are expected to revolutionize drug discovery and healthcare over the next two years.
- AI's applications in predictive modeling, target identification, toxicity prediction, and drug repurposing.
- AI enhanced drug development provides fast, more efficient, and personalized drug.

DAY 5: 29.11.2024/FN

AI in small molecule drug discovery

Dr.Dakshinamurthy Sivakumar,
Senior Drug Design Scientist, BioCogniz, Bangalore, India



Dr. Dakshinamurthy Sivakumar, Senior Drug Design Scientist at BioCogniz, Bangalore, delivered an insightful talk on **AI-Driven Drug Discovery** as a transformative approach in small molecule development. He emphasized that the integration of Artificial Intelligence (AI) with computational drug design techniques, such as Computer-Aided Drug Design (CADD) and AI-Assisted Drug Discovery (AIDD), is revolutionizing the field. A landmark example of AI's potential is the discovery of antifibrotic drugs that have progressed to first-in-human trials. AI-powered tools like **BindWeb**, **CRAFT**, and **DoGSiteScorer** are advancing protein structure and binding site predictions, while generative models such as **drugGen**, **Pocket2Mol**, and **GENTRL** enable efficient de novo drug design. Dr. Sivakumar also highlighted **PyRMD** for AI-driven lead identification and **ADMETLab 3.0** for QSAR-based ADME/T predictions, showcasing AI's versatility in addressing key challenges in early-stage drug discovery.

In the domain of synthetic feasibility, tools like **DFRScore** and **Emin** aid chemists in evaluating synthetic routes for drug candidates. Computational approaches for fragment-based drug design and virtual screening were spotlighted as pivotal areas where AI excels. Dr. Sivakumar emphasized the need to focus on AI-based structure prediction tools and binding site analysis to optimize drug-target interactions. While AI models like AlphaFold and their structure-prediction counterparts are highly effective, challenges remain in refining binding site predictions and improving experimental validation. He concluded with a call to harness AI's potential to accelerate lead generation, optimize ADMET properties, and enhance synthetic feasibility, thereby pushing the boundaries of modern drug discovery.

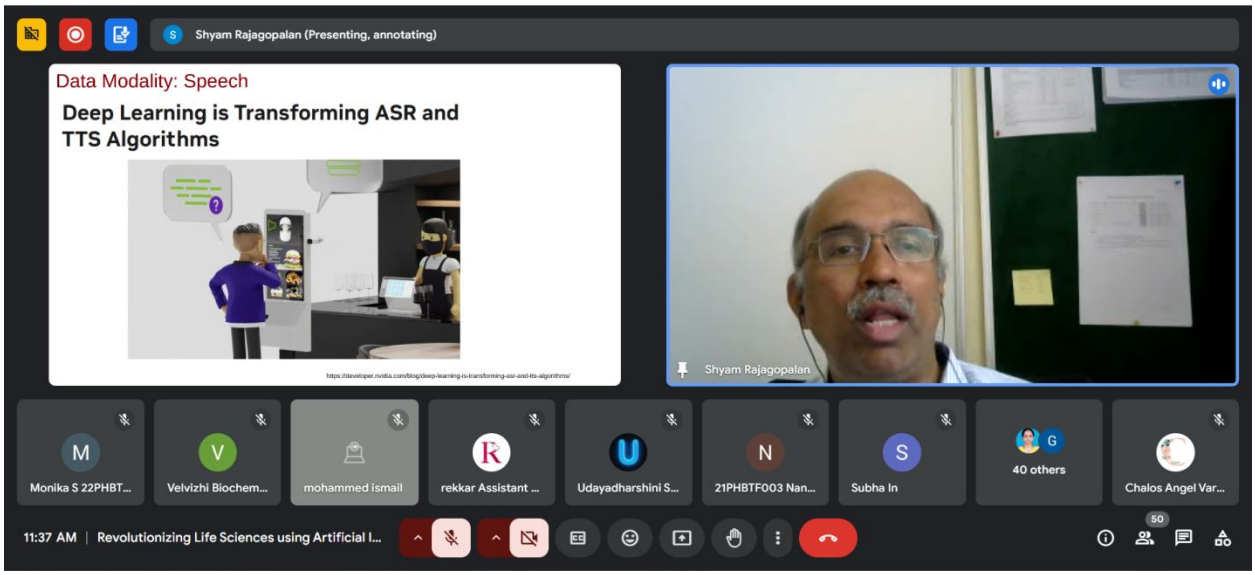
Takeaways from the session:

- AI is revolutionizing drug discovery by enabling efficient protein structure prediction, binding site analysis, and de novo drug design with tools like AlphaFold, BindWeb, and GENTRL.
- The integration of AI with computational methods such as QSAR-based ADME/T predictions (ADMETLab 3.0) and synthetic feasibility tools (DFRScore) enhances lead identification, optimization, and development.
- The synthetic feasibility evaluation through AI tools like DFRScore and Emin is streamlining the pathway from lead generation to practical drug synthesis.

DAY 5: 29.11.2024 Session-2

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN NEURODEVELOPMENTAL DISORDER

Dr. Shyam Sundhar Rajagopalan, Assistant Professor, Institute of Bioinformatics and Applied Technology ,Biotech Park, Bangalore



Dr. Shyam Sundhar Rajagopalan discussed the transformative potential of AI and machine learning (ML) in addressing the complexities of neurodevelopmental disorders (NDDs), including autism spectrum disorder (ASD). He emphasized the challenges posed by the multifaceted nature of these conditions, from delayed diagnosis to the absence of approved treatments for core symptoms. AI/ML approaches, leveraging techniques such as supervised, unsupervised, and reinforcement learning, are advancing early diagnosis, individualized treatment plans, and insights into the molecular basis of NDDs. Multimodal machine learning, integrating data from genomics, neuroimaging, and behavioral patterns, is revolutionizing how gene-brain-behavior relationships are studied, providing many lenses into autism. Algorithms like logistic regression, decision trees, and deep learning methods, including long short-term memory (LSTM) models, are enabling the prediction of ASD from minimal datasets and computational understanding of behaviors like attention, emotion, and self-stimulatory actions in naturalistic settings.

The role of AI in neuroimaging was highlighted as crucial for detecting early markers and understanding brain structures associated with ASD. Advances in sequence-to-sequence learning and extending Long short-term memory (LSTM) models have facilitated multi-view structured learning for analyzing human multimodal behaviors such as verbal, vocal, and visual interactions. Dr. Rajagopalan stressed the need for scalable ML models to analyze high-content multimodal data, aiding the development of innovative solutions for NDD challenges. By leveraging AI to measure engagement in social interactions and detect subtle behavioral patterns, researchers are paving the way for early interventions and improved outcomes. This integration of AI into neurodevelopmental research marks a significant leap toward understanding and addressing complex disorders like autism.

Takeaways from the session:

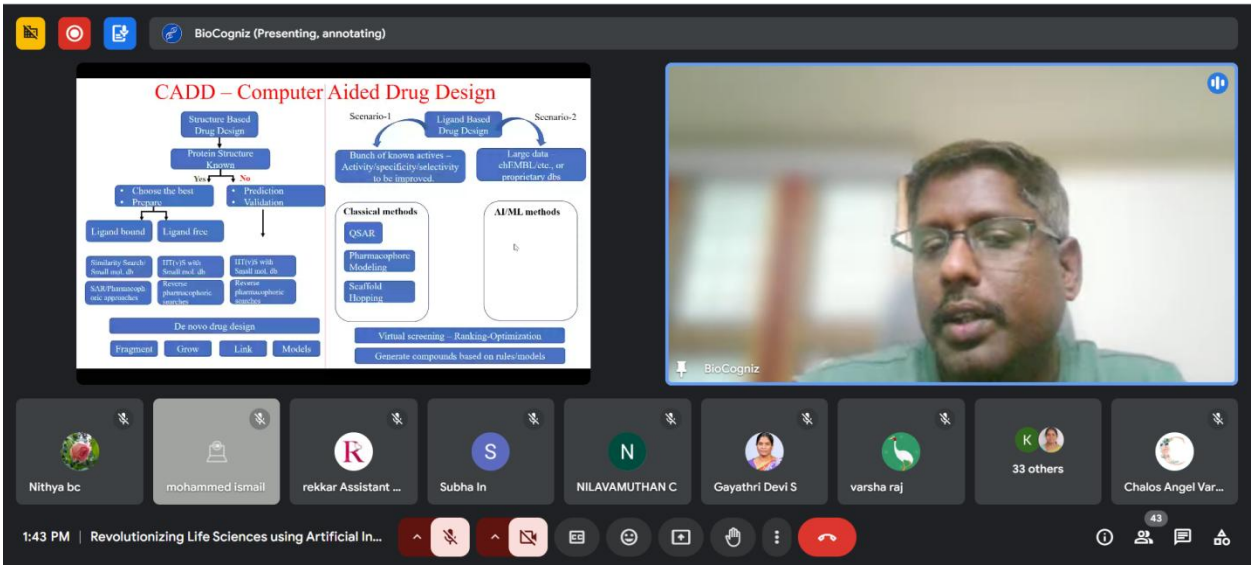
- AI and machine learning are pivotal in transforming the diagnosis and treatment of neurodevelopmental disorders by integrating multimodal data such as genomics, neuroimaging, and behavioral patterns.

- Algorithms like logistic regression, decision trees, and deep learning models, including LSTM, are enabling accurate predictions of autism spectrum disorder and computational understanding of behaviors in naturalistic settings.
- The use of AI in neuroimaging and behavior analysis is opening new avenues for early diagnosis, personalized interventions, and a deeper understanding of gene-brain-behavior relationships in conditions like autism.

DAY 5: 29.11.2024 Session-3

Role of AI in Drug Discovery and Development

Dr.Dakshinamurthy Sivakumar,
Senior Drug Design Scientist, BioCogniz, Bangalore, India



Dr. Dakshinamurthy Sivakumar elaborated on the pivotal role of Artificial Intelligence (AI) in revolutionizing drug discovery and development. He highlighted traditional methods like **Computer-Aided Drug Design (CADD)**, which includes structure-based and ligand-based approaches, and virtual screening techniques such as docking-based virtual screening. He shared that AI enhances these processes by enabling efficient sampling and optimization, integrating datasets with known properties, and leveraging physics-based molecular simulations. He also added that the Pre-trained generative models, such as RNNs, VAEs/AAEs, and GANs, are now instrumental in de novo drug design, optimizing molecular properties, and addressing challenges in selectivity. Reinforcement learning approaches combined with experimental validation have streamlined the generation and prioritization of compounds with desired properties. Challenges like solvent accessibility in docking and water-mediated interactions were discussed, with examples like OTUB1 and OTUB2 illustrating strategies for designing selective inhibitors.

He further talked about AI's role in accelerating ADMET (absorption, distribution, metabolism, excretion, and toxicity) prediction, druggability assessments, and addressing key issues in hit identification. Tools like molecular docking, molecular dynamics, QM/MM simulations, and free

energy calculations are integrated with AI for robust hit-to-lead optimization. The SARS-CoV-2 example demonstrated the practical application of Pharmulator checkpoints for hit identification. Dr. Sivakumar concluded by emphasizing AI's ability to transform drug discovery, from virtual screening to experimental validation, by significantly reducing timelines and enhancing the precision of drug design.

Takeaways from the session:

- AI significantly enhances traditional drug discovery methods like CADD by enabling efficient virtual screening, molecular property optimization, and addressing selectivity issues.
- Pre-trained generative models (RNNs, GANs) and reinforcement learning streamline de novo drug design and improve experimental validation processes.
- AI-driven approaches, such as ADMET prediction and molecular simulations, reduce timelines and increase precision, with successful applications like SARS-CoV-2 hit identification.

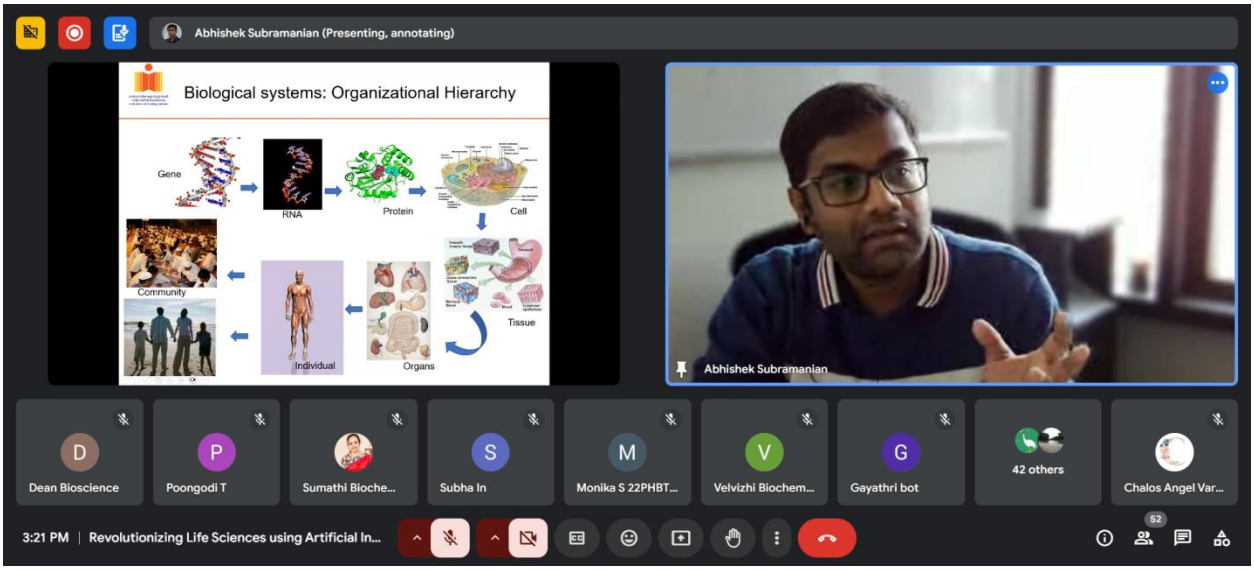
DAY 5: 29.11.2024 Session-4

Valedictory Session

Machine learning applications to biological data analysis

Dr. Abhishek Subramanian

Assistant Professor, Department of Biotechnology, Indian Institute of Technology, Hyderabad



Dr. Abhishek Subramanian's talk provided an insightful introduction to machine learning applications in biological data analysis, showcasing the intersection of computational approaches with diverse biological systems. He Begins with foundational concepts like the central dogma of molecular biology and the organizational hierarchy of biological systems, he emphasized the diversity of length and time scales in biology. He also highlighted the contrasting approaches of "day science" and "night science" in biological research.

The talk explored high-throughput experimental techniques such as genomics, transcriptomics, epigenomics, and metabolomics, alongside bulk and single-cell sequencing, radiomics, and derived functional data types. Key biological networks like protein-protein interaction, gene-gene interaction, metabolic, signaling, and gene regulatory networks were discussed, emphasizing their critical roles in understanding complex biological systems. He also shared about the challenges associated with big biological data, including acquisition, storage, distribution, and analysis, and elaborated on the evolution of modern biology with the integration of machine learning and computational models.

He delved into the anatomy of data science, exploring its components—computer science, data science, AI, and ML—and the ML modeling cycle. Practical applications in biology, such as anticancer drug sensitivity prediction using QSAR and gene regulatory network inference, were covered alongside regression methods like linear regression and support vector regression. He talked about ML techniques, including support vector machines, random forests, and deep neural networks, and were presented with examples like cancer subtype classification and subcellular localization. Dr. Subramanian also explored unsupervised ML methods, including clustering strategies for metagenomics and single-cell transcriptomics. The integration of multi-omics data was highlighted as a frontier in biological research, emphasizing the transformative potential of machine learning in advancing our understanding of biology and enabling data-driven discoveries.

Takeaways from the session:

- Machine learning has become an essential tool for analyzing complex biological data, enabling breakthroughs in genomics, transcriptomics, proteomics, and metabolomics.
- Understanding the diversity of biological data types—ranging from bulk and single-cell sequencing to derived functional data types like radiomics—requires sophisticated computational approaches.
- Techniques like regression, supervised learning (SVMs, random forests, deep neural networks), and unsupervised clustering are revolutionizing areas such as anticancer drug sensitivity prediction, essential gene identification, and metagenomics.

Valedictory Session

The Five-day Short-Term Capacity-Building Program on "**Nineth Short Term Capacity Building Programme on Revolutionizing Life Sciences using Artificial Intelligence**" jointly organized by the AIU – Avinashilingam Institute – Academic and Administrative Development Centre (AIU-AI-AADC) and School of Biosciences and Centre for Machine Learning and Intelligence during **25th November- 29th November** 2024 in online mode culminated on the evening of **29th November 2024**. Around Seventy participants attended the programme online. Twenty one sessions each of 60 minutes duration were planned and conducted with utmost punctuality and participation by all the expert resource persons. The programme brief is presented in Annexure 1. The schedule of the programme with the resource person details is presented in Annexure 2. The programme was planned and executed within a duration of 30 days (Planning of programme, inviting resource persons and participant intimation was done twenty days prior to the programme).

The valedictory meet began with a prayer song. Dr.K.Ramya, Nodal Officer, AIU-AI-AADC, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore welcomed the gathering. Dr. Anitha Subash Programme Coordinator of this Short-Term Capacity-Building Program, delivered the **Presidential address**.The session was followed by a **validatory address** given by Dr.Abhishek Subramanian on the topic entitled Machine learning applications to Biological Data analysis: An Introduction.

Dr.S.Sumathi, Professor, Department of Biochemistry, Biotechnology and Bioinformatics, Avinashilingam Institute for Home Science and Higher Education for women presented a **brief report** of this five days Short-Term Capacity-Building Program.

The participants gave their valuable **feedback** on the conduct of the programme and choice of resource persons. They highly appreciated the choice of topics, the resource persons,time management of the programme and were highly appreciative of the overall conduct of the programme. The overall feedback as received from the participants is presented in Annexure 3.

The valedictory session concluded with a warm note of greetings and formal **vote of thanks** by 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.

Participants List

S.No	Name	Designation	Department	Institution/ Organisation Name
1	Dr. S. Nandhini	Associate Professor	Microbiology	Ethiraj College for Women
2	Ms. Abishikha S	Research Scholar	Microbiology	Sri Ramachandra Institute of Higher Education and Research
3	Dr. R. Yamuna	Assistant Professor	Zoology	PSGR Krishnammal College for Women
4	Dr. P. Susheela	Associate Professor	Zoology	PSGR Krishnammal College for Women
5	Dr. R. Rekka	Assistant Professor	Botany	Kongunadu Arts and Science College (Autonomous), GN Mills Post, Coimbatore
6	Dr.S. Arul Diana Christie	Assistant Professor	Microbiology	SRI RAMAKRISHNA COLLEGE OF ARTS AND SCIENCE FOR WOMEN COIMBATORE
7	Mrs. Reshmi Gopalakrishnan	Assistant Professor	Microbiology	Sri Ramakrishna College of Arts & Science for Women
8	Dr. S Gayathri Devi	Associate Professor	Computing - Data Science	Coimbatore Institute of Technology

9	Mr. Srinivasan J	Assistant Professor	Biotechnology	Sri Krishna Arts and Science College,
10	Dr. M. Saravanan	Associate Professor & Head	International Business	PSG College of Arts & Science
11	Mrs.S.Hemalatha	PhD Research Scholar	Computer Science	Annai college of Arts and science,kovilacherry.
12	Mrs. Jilsheena P K	Research scholar	Department of Biochemistry, Biotechnology and Bioinformatics	Avinasilingam Institute for Home Science and Higher Education for Women
13	Ms. Nisha Subash	Assistant Professor	Chemical Engineering	Coimbatore Institute of Technology
14	Mrs. Sephy Rose Sebastian	Research scholar	Biotechnology	Avinasilingam Institute for Home Science and Higher Education for Women
15	Mrs. Jisha M	Assistant Professor	PG Department of Biotechnology	Chinmaya Arts & Science College for Women, Chala .
16	Ms. Nanthini.N	Research scholar	Biochemistry, biotechnology and bioinformatics	Avinasilingam Institute for Home Science and Higher Education for Women
17	Ms. Aswathi Sreenivasan c v	Research scholar	Biochemistry	Avinasilingam Institute for Home Science and Higher Education for Women
18	Dr. M.Parveen	Assistant Professor	Botany	Kongunadu Arts and Science College (Autonomous)
19	Dr. Purvi Bhatt	Associate Professor & HOD	Department of Biological Sciences	Sunandan Divatia School of Science NMIMS University Mumbai
20	Dr. Vasanth Raj Palanimuthu	Principal Research Officer	Clinical Research	Sri Ramakrishna Hospital
21	Mrs. Subha I N	Assistant Professor	Computer Science	Sreekrishnapuram V T Bhattathiripad College, Mannampatta, Palakkad
22	Mrs. Veena G O	Research scholar	Biochemistry	Avinashilingam Institute for Home Science and Higher Education for Women
23	Ms. Karthika G	Research scholar	Biochemistry Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
24	Dr. Varsha Raj	Doctorate	Zoology	University of Lucknow
25	Mrs. Ambika S	Assistant professor	Biotechnology	PSG college of Arts & Science
26	Ms. Anila Aneesh	Research scholar	Biochemistry	Avinashilingam Institute for Home Science and Higher Education for Women
27	Dr. G. Maheswari	Assistant Professor (SS)	Zoology	Avinashilingam Institute for Home Science and Higher Education for Women
28	Dr. Om Prakash C	Professor	School of Management	CMR University

29	Mrs. Kalaiselvi Sivabalan	Research Scholar	Computer Science	Sathyabama Institute of Science and Technology
30	Mrs. Aswathy R	Research Scholar	Biochemistry,Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
31	Ms. Elsa Devassy	Research Scholar	Biochemistry, Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
32	Ms. Anjana M	Assistant Professor	Biochemistry	SAFI Institute of Advanced Study (Autonomous)
33	Mrs. Lathika R	Assistant Professor	Biochemistry	Ahalia School of Optometry and Research Centre
34	Dr. S. VELVIZHI	Assistant Professor (SG)	Biochemistry, Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
35	Ms. Shantini M.S	Research scholar	Biochemistry,Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
36	Dr. C .C .S. Vasundhara	Assistant Professor	Department of Biochemistry, Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
37	Mrs. Chalos Angel Varghese	Research Scholar	Department of Biochemistry,Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
38	Mrs. Sri Durga Devi. R	Research Scholar	Biochemistry, Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
39	Dr. C. Senthil Kumar	Professor	Pharmacology	RVS College of Pharmaceutical science
40	Dr. Priya Dhiman	Assistant Professor	Department of Pharmacy	SRM Institute of Science and Technology Delhi-NCR Campus, Modinagar, Ghaziabad (U.P)), India
41	Dr. Gayathri Vaidyanathan	Assistant Professor	Botany	Avinashilingam Institute for Home Science and Higher Education for Women
42	Ms. Aparnapreethi R	Research Scholar	Biochemistry, Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
43	Ms. Allen Princy A P	Research Scholar	Botany	Avinashilingam Institute for Home Science and Higher Education for Women
44	Dr. Poongodi.T	Assistant Professor	Biochemistry, Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
45	Dr. Radhika Patel	Assistant Professor	P. G Department of Biosciences	Sardar Patel University, Anand, Gujarat
46	Mrs. Sritha. T	Research scholar	Biotechnology	Avinashilingam Institute for Home Science and Higher Education for Women
47	Dr. Rupal Vasant	Assistant Professor	P. G. Department of Biosciences	Sardar Patel University, Anand, Gujarat

48	Ms. Udayadharshini S	Research Scholar	Biochemistry, Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
49	Dr. Jenita Thinakaran	Professor	Agriculture	Karunya Institute of Technology and Sciences
50	Mrs. Prasanna R Kovath	Assistant Professor	Biotechnology	ST.MARY'S COLLEGE (Autonomous)
51	Ms. Karthiga.S	Research scholar	Biochemistry , Biotechnology, and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
52	Ms. Pavithra R	Research Scholar	Zoology	Avinashilingam Institute for Home Science and Higher Education for Women
53	Ms. Vasandhlakshmi r	Research Scholar	Botany	Avinashilingam Institute for Home Science and Higher Education for Women
54	Ms. INDUMATHI B	Research scholar	BOTANY	Avinashilingam Institute for Home Science and Higher Education for Women
55	Dr. Mohammed Ismail	Deputy Manager-Epidemiology	Bull Management	Alamadhi Semen Station
56	Ms. Dheekshana. S	Technical Assistant	Biochemistry, Biotechnology and Bioinformatics	Avinasilingam Institute for Home Science and Higher Education for Women
57	Dr. Sowmya. TN	Assistant professor	Department of biotechnology and bioinformatics	School of Life Sciences, JSS AHER, Mysore, Karnataka
58	Ms. Nandhini D	Research scholar	Biochemistry, biotechnology and bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
59	Ms. Rajarajeswari JK	Research scholar	Bichemistry, Biotechnology,& Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
60	Ms. Sanjupriya S	Research Scholar	Zoology	Avinashilingam Institute for Home Science and Higher Education for Women
61	Ms. Swathika R S	Research Scholar	Department of Biochemistry Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
62	Dr. E Nithya	Assistant Professor	Department of Biochemistry Biotechnology and Bioinformatics	Avinashilingam Institute for Home Science and Higher Education for Women
63	Dr. C. Nilavamuthan	Assistant Professor	Bioscience	Sri Krishna Arts and Science College

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 (now MoE)
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)
&
School of Biosciences
&
Centre for Machine Learning and Intelligence

Certificate No: AIU - AI – AADC/ 2024 /09/020

CERTIFICATE OF PARTICIPATION

This is to certify that

Dr. S. Nandhini

Associate Professor, Department of Microbiology
Ethiraj College for Women, Chennai

has participated in the Short-Term Capacity Building Programme on
"Revolutionizing Life Sciences using Artificial Intelligence" conducted by
AIU - Avinashilingam Institute – Academic & Administrative Development Centre (AIU - AI- AADC) &
School of Biosciences & Centre for Machine Learning and Intelligence (CMLI)
from 25/11/2024 to 29/11/2024 and her performance was Excellent.

Dr. K. Ramya	Dr.P.Subashini	Dr. Anitha Subash	Mrs. Ranjana Parihar	Dr. Pankaj Mittal	Dr. H. Indu	Dr. V. Bharathi Harishankar
Nodal Officer AIU-AI-AADC	Programme Coordinator	Programme Coordinator	Joint Secretary, Printing & Publications, AIU	Secretary General AIU	Registrar i/c Avinashilingam Institute	Vice Chancellor Avinashilingam Institute

9th Short-Term Capacity-Building Program on 'Revolutionizing Life Science Using Artificial Intelligence'

Day/Date	Session I 10.00 am to 11.00 am	Session II 11.30 am to 12.30 pm	Session III 01.30 pm to 02.30 pm	Session IV 03.00 pm to 04.00 pm	session V 5 pm to 6 pm
25.11.2024 Monday When AI meets Biology	Presidential Address Inauguration Session Theme: Understanding the role of AI in Life science research Dr. Nalini Arumugam Senior Lecturer School of Agricultural Sciences and Biotechnology University Sultan Sainal Abidin, Malaysia Mail : nalini@unisza.edu.my	Game Changing Artificial Intelligence and Machine Learning Technologies in Drug Discovery Prof. Narayan sastry Fifth Paradigm Lab Department of Biotechnology, Indian Institute of Technology, Hyderabad, Telangana, India Mail :gnsastry@bt.iith.ac.in gnsastry@gmail.com	Applications of AI/ML in disease diagnosis and precision medicine Dr. Vijayalakshmi Mahadevan Professor, Epigenetics and Image Informatics & Dean, Student Affairs Institute of Bioinformatics and Applied Biotechnology (IBAB), Bengaluru, Karnataka, India Mail : mviji@ibab.ac.in Mobile : 9790013036	The Growing Impact of AI in Life Sciences Dr. Adhiraj Nath Senior Scientific Specialist Excelra, Hyderabad Telangana, India Mail :adhiraj@alumini.iitg.ac.in Mobile :8723013467	
26.11.2024 Tuesday Scientific literature analysis and Research planning	AI/ML in Drug Discovery Mr. Raghu Rangasamy CEO, Molecular Solutions and softwares pvt limited Mail : rraghu@molecularsolutions.co.in Mobile : 9900090011	Unlocking the power of AI in academic research writing and publications Dr. Vishnukumar Newyork University Abu Dhabi Mail : vishnu.v@nyu.edu vishnuvijay@u.nus.edu Mobile : 9446948831	Hands on training in drug discovery using Chem AIRS software Mr. Raghu Rangasamy and Mr. Anbu - Application specialist CEO, Molecular Solutions and softwares pvt limited Mail : rraghu@molecularsolutions.co.in Mobile : 9900090011	Methods in Machine Learning Dr. Sreenivas Chavali Associate Professor Department of Biology IISER Tirupati. mail: schavali@iisertirupati.ac.in Mobile :7893611849	Write and Edit Manuscripts, Cite relevant Sources, and Identify Journals. Dr. Deepa Jaganathan Founder Deebiotech academic research service Mail : deebiotechdars@gmail.com
27.11.2024 Wednesday AI in Agriculture and Livestock	AI-driven Agricultural Innovation Dr. U.Sivakumar Professor of Agricultural Microbiology Department of Agri. Microbiology Tamil Nadu Agricultural University, Coimbatore. Mail : usiva@tnau.ac.in Mobile : 8903611294	AI in Drug Discovery Mr. Jitesh Doshi Research Scientist Peptris Technologies Pvt. Ltd,Bengaluru, Karnataka. Mail : jitesh@peptris.com Mobile :919890336470	AI in livestock management Dr. V.Uma Professor and Head Dept. of Veterinary and Animal Husbandry Extension Education, Veterinary College and Research Institute, Udumalpet. Mail : umaavet@gmail.com Mobile : 9952200040	AI based smart farming Dr. T.K.Mohanty Principal Scientist (Animal Reproduction) ICAR- National Dairy Research Institute, Karnal, Haryana. Mail : mohanty.tushar@gmail.com Mobile : 9215508002	

Day/Date	Session I 10.00 am to 11.00 am	Session II 11.30 am to 12.30 pm	Session III 01.30 pm to 02.30 pm	Session IV 03.00 pm to 04.00 pm	session V 5 pm to 6 pm
28.11.2024 Thursday AI in Disease Diagnosis	**Prediction of parameters for simulated body segments of an aircraft pilot during high G (Gravity) maneuvers.** **Prof. Munna Khan** Department of Electrical Engineering, Faculty of Engineering & Technology JAMIA MILLIA ISLAMIA **Mail :** mkhan4@jmi.ac.in	**Role of AI in oncology** **Dr. Subhiksha** Research fellow Adayar cancer institute.(W.I.A), Adayar, IIT Madras **Mail :** mail2subikksha@gmail.com **Mobile :**9361737146	**Fundamentals of AI In Biology** **Prof Tapan kumar Gandhi** IIT Delhi Cadence Chair Professor of Automation & AI Department of Electrical Engineering **Mail :** Tapan.Kumar.Gandhi@ee.iitd.ac.in **Mobile :**9599284080	**The Role of Artificial Intelligence in Drug Discovery: From Bench to Bedside** **Dr. Om Prakash Sharma** Natiggs GmbH, Head of Bioinformatics Ulm, Germany **Mail :** ombioinfo@gmail.com **Mobile :**+49-1522-375-6216	
29.11.2024 Friday AI in Drug Discovery	**AI in small molecule drug discovery** **Dr.Dakshinamurthy Sivakumar** Accelerating Drug Discovery with AI-Powered Tools **Mail:** info@biocogniz.com	**Role of Artificial Intelligence in Drug Discovery and Development** **Dr.Anoosha Paruchuri** Computational Cancer Biologist, BioCogniz. **Mail:** info@biocogniz.com		**Machine learning applications to biological data analysis** **Dr. Abhishek Subramanian** Assistant Professor Department of Biotechnology Indian Institute of Technology, Hyderabad. **Mail:** abhisheks@bt.iith.ac.in	

Avinashilingam Institute for Home Science and Higher Education for Women

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

&

School of Biosciences

&

Centre for Machine Learning and Intelligence (CMLI)

jointly organizes

Ninth Short Term Capacity Building Programme for the year 2024

on

Revolutionizing Life Sciences using Artificial Intelligence

Invited Talks
Case Studies
Hands -on Sessions
Activities

25.11.2024 to 29.11.2024

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 the 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, 98th 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. Meenakshisundaram, Managing Trustee and Chancellor, Dr. V. Bharathi Harishankar, Vice Chancellor and Dr. H. Indu, Registrar i/c.

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.

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.

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 to :

- **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 rapidly evolving field of life sciences, the integration of Artificial Intelligence (AI) is revolutionizing research methodologies and offering innovative solutions to complex challenges. AI-based tools have transformed drug discovery, personalized medicine and clinical decision-making, enabling precise diagnoses and cost-effective treatments. The use of AI in agriculture has also reduced waste, increased productivity, and streamlined market delivery, highlighting its cross-disciplinary impact.

Through advanced machine learning (ML) and deep learning techniques, AI can optimize metabolic pathways in living systems, improving microbial strains for industrial applications. These innovations have significant implications, from enhancing bio-based industries to advancing ecology, epidemiology, and molecular biology. As AI technologies like ChatGPT and BioGPT become more prevalent, they present new opportunities and challenges for life sciences research.

This program emphasizes the practical application of AI in bioscience, fostering interdisciplinary collaborations and real-world problem-solving. Participants will gain hands-on experience with state-of-the-art AI tools, equipping them to design impactful research projects. The initiative aims to bridge the gap between AI advancements and their practical use in life sciences, ensuring that participants are well-prepared to leverage AI for breakthroughs in their fields.

By the end of the program, participants will possess not only technical skills but also the foresight to apply AI solutions across diverse domains. As AI becomes increasingly user-friendly, its adoption in life sciences is accelerating, making it essential for researchers to stay informed. A future biologist might make the next major breakthrough with AI, underscoring the importance of integrating AI literacy into modern scientific education.

OBJECTIVES

- Understand the fundamentals of applications of AI in Life sciences
- Explore various AI-driven tools and platforms for research in Biosciences
- Predictive analytics to help learn patterns and trends and make better decisions.
- Address the growing concern over the ethical and regulatory implications of using AI.
- Foster collaboration among participants to share knowledge and resources in their fields of expertise

TARGET PARTICIPANTS

The Program is Designed for Professors, Lecturers, and Research Scholars from Higher Education Institutions who are Interested in Exploring the role of AI in Biosciences. Staff members and Scholars in Related Disciplines can also Participate.

Duration : 25.11.24 to 29.11.24

(5 Days Programme)

Time : 9:30 am to 4:45 pm

Note : E-certificates will be issued upon successful completion of programs, with attendance, feedback, and assessment submissions being mandatory.

PROGRAMME SCHEDULE

Day 1: Date: 25.11.2024

When AI meets Biology

- **Session 1:** Understanding the Role of AI in Life Sciences Research
- **Session 2:** Game Changing Artificial Intelligence and Machine Learning Technologies in Drug Discovery
- **Session 3:** Unlocking the power of AI in academic research writing and publications
- **Session 4:** The Growing Impact of AI in Life Sciences

Day 2: Date: 26.11.2024

Scientific literature analysis and Research planning

- **Session 1:** AI/ML in Drug Discovery
- **Session 2:** Hands on training in drug discovery using Chem AIRS software
- **Session 3:** Demonstration Session on Farm Intelligence Using FarmBot
- **Session 4:** Exploring AI Applications in Healthcare: A Video Session
- **Session 5:** Write and Edit Manuscripts, Cite relevant sources, and Identify Journals.

Day 3: Date: 27.11.2024

AI in Agriculture and Livestock

- **Session 1:** AI in Drug Discovery
- **Session 2:** Application of Artificial Intelligence, Machine Learning and Internet of Things in Animal Agriculture and Integrated Farming
- **Session 3:** AI in Livestock Management
- **Session 4:** AI Based Smart Farming

Day 4: Date: 28.11.2024

AI in Disease Diagnosis

- **Session 1:** Prediction of Parameters for Simulated Body Segments of an Aircraft Pilot during High G (Gravity) Maneuvers
- **Session 2:** Role of AI in Oncology
- **Session 3:** Fundamentals of AI In Biology
- **Session 4:** The Role of Artificial Intelligence in Drug Discovery: From Bench to Bedside

Day 5: Date: 29.11.2024

AI in Drug Discovery

- **Session 1:** AI in Small Molecule Drug Discovery
- **Session 2:** AI/ML in Neurological Disorders
- **Session 3:** Role of Artificial Intelligence in Drug Discovery and Development
- **Session 4:** Machine Learning Applications to Biological Data Analysis

LIST OF RESOURCE PERSONS

- **Dr. Nalini Arumugam,** Associate Professor, School of Agricultural Sciences and Biotechnology, Universiti Sultan Zainal Abidin, Malaysia.
- **Prof. G Narahari Sastry,** Fifth Paradigm Lab, Department of Biotechnology, Indian Institute of Technology, Hyderabad, Telangana, India.
- **Dr. Vishnukumar,** New York University, Abu Dhabi.
- **Dr. V. Uma,** Professor and Head, Department of Veterinary and Animal Husbandry Extension Education, Veterinary College and Research Institute, Udumalpet.
- **Dr. Munna Khan,** Professor, Department of Electrical Engineering, Jamia Millia Islamia (A Central University) New Delhi.
- **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.
- **Prof. Tapan Kumar Gandhi,** Cadence Chair Professor of Automation & AI,Department of Electrical Engineering,Indian Institute of Technology, Delhi.
- **Dr. Adhiraj Nath,** Senior Scientific Specialist, Excelra, Hyderabad, Telangana, India.
- **Mr. Raghu Rangasamy,** CEO, Molecular Solutions Software Pvt. Ltd, Bangalore, Karnataka.
- **Mr. Jithesh Doshi,** Computer Aided / AI Based Drug Discovery Scientist, Peptris Technologies, Bangalore, Karnataka.
- **Dr. Om Prakash Sharma,** Head of Bioinformatics, NatIgGs GmbH, Germany.
- **Dr. Dakshinamurthy Sivakumar,** CoFounder, BioCogniz, Dubai, United Arab Emirates.
- **Dr. Shyam Rajagopalan,** Senior Assistant Professor, Institute of Bioinformatics & Applied Biotechnology (IBAB), Bangalore.
- **Dr. Abhishek Subramanian,** Assistant Professor, Department of Biotechnology, Indian Institute of Technology, Hyderabad.
- **Dr. Deepa Jaganathan,** Founder, Deebiotech Academic Research Services(DARS), Tamil Nadu, India.
- **Dr. T. K. Mohanty,** Principal Scientist (Animal Reproduction), ICAR-National Dairy Research Institute, Karnal, Haryana.
- **Ms. Subhiksha,** Research Fellow, Adyar Cancer Institute (W.I.A), Adyar.

Click Here : https://forms.gle/cBgifUyeyAbpoY6D9

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 (for International Registrations)

AI ADVISORS

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

Dr. V. BHARATHI HARISHANKAR, Vice Chancellor

Dr. H. INDU, Registrar i/c

AIU ADVISORS

Dr. PANKAJ MITTAL, Secretary General, AIU

Mrs. RANJANA PARIHAR, Joint Secretary, Printing & Publications, AIU

PROGRAMME COORDINATORS

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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.
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Mobile : 8072202927

Special thanks to:

AI Advisors

- Dr. T. S. K. Meenakshisundaram, Managing Trustee & Chancellor
- Dr. V. Bharathi Harishankar, Vice Chancellor
- Dr. H. Indu, Registrar i/c

AIU Advisors

- Dr. Pankaj Mittal, Secretary General, AIU
- Mrs. Ranjana Parihar, Joint Secretary, Printing & Publications, 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

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