A Brief Report on Academic Expert-Adjunct faculty Interaction series: Lecture III

(Enhancing professional skills)

Date: 14.03.2022

Name of the presenter:

Dr. Usha Sambamoorthi
Professor of Pharmacotherapy
Associate Dean for Health Outcomes Research
University of Texas, USA

Title of the presentation:

Health Services / Health Economics / Health Outcomes Research :& Artificial Intelligence and Machine Learning

Program Organized by:

Dept. of Pharmacy Practice & Pharmacy Education Unit
JSS College of Pharmacy, Ooty JSS College of Pharmacy, Ooty

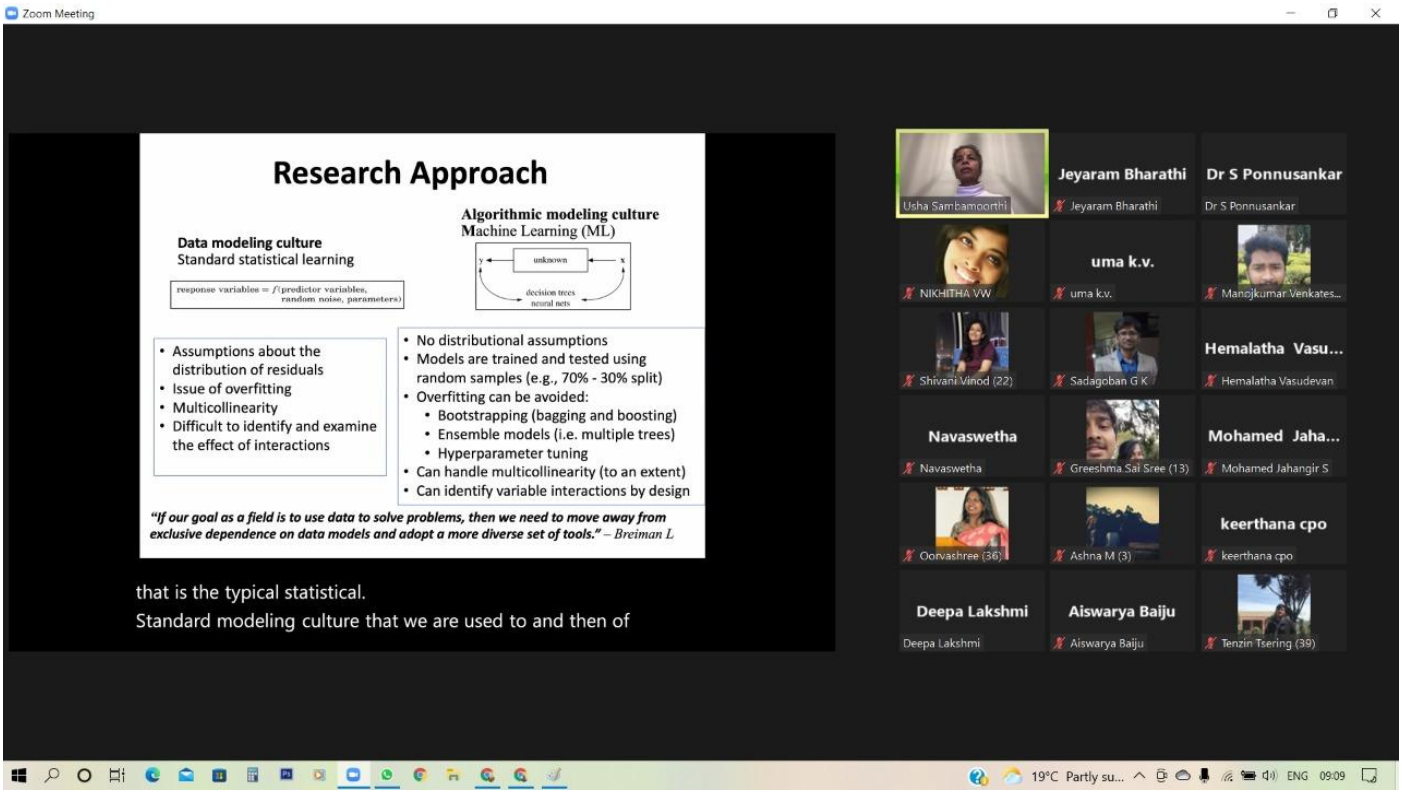
Academic interaction with distinguished faculty bring value to academic institutions by sharing their expertise with students. Students gain additional knowledge along with experiential learning by participating in projects and activities connecting the curriculum to practice. With an objective of enhancing professional skills Department of Pharmacy Practice in association with Pharmacy Education Unit, JSS College of Pharmacy, Ooty has planned to conduct Academic Expert Interaction series

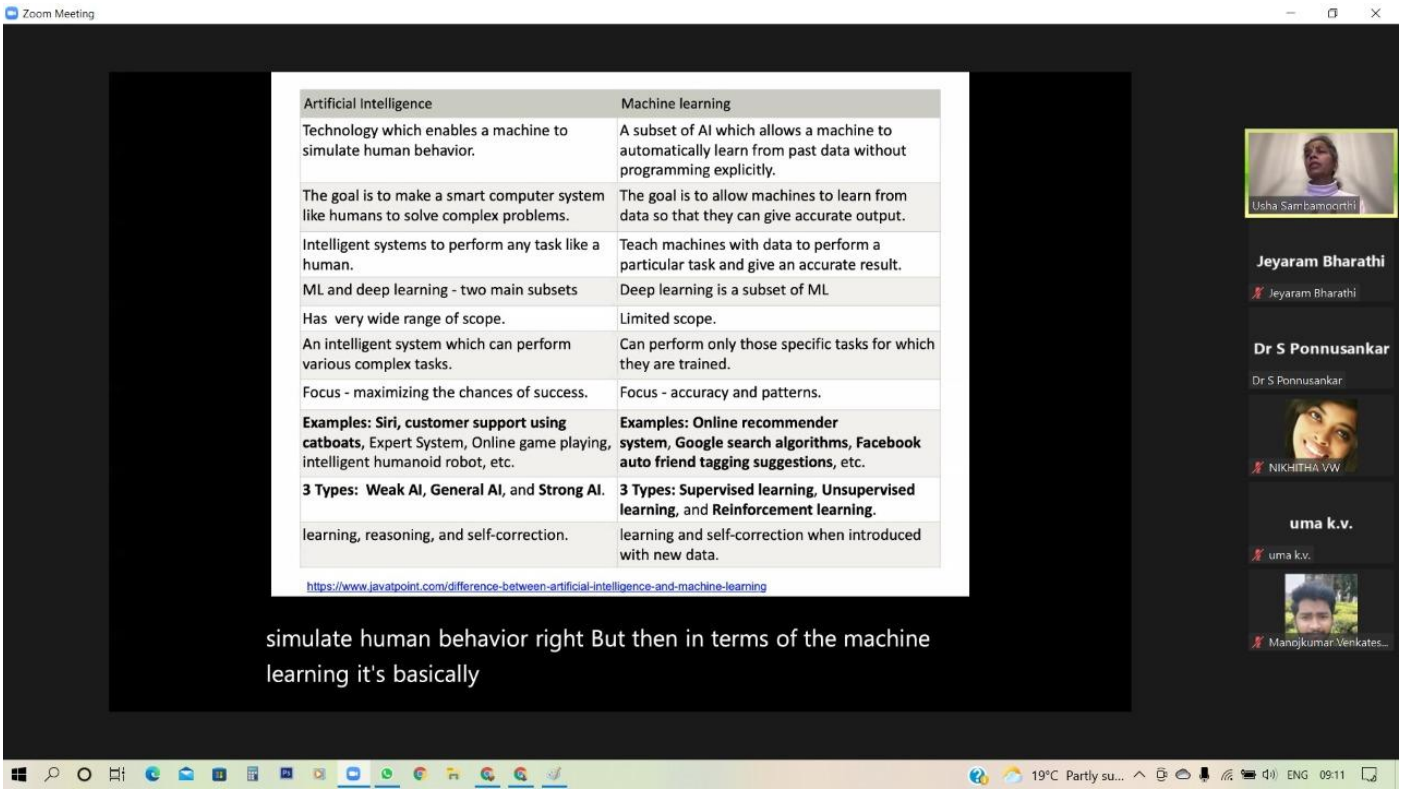
Dr Usha Sambamoorthi is presently working as Professor of Pharmacotherapy, Associate Dean for Health Outcomes Research, Health Science Center at Fort Worth, The University of North Texas, USA.

Dr Usha started her presentation with the basic introduction to health economics, health outcomes research using the machine learning approach. Outcomes Research is the cornerstone of health technology assessment (HTA), which decision-makers use to inform the adoption of new health technologies. However, the generation of outcomes that are used in OR typically requires a period of data collection and analysis that may take months or years to complete, which in turn increases the amount of time taken to finalize HTAs and thus delays adoption by decision-makers. Artificial Intelligence (AI) has the potential to accelerate and contribute additional accuracy and quality studies to the evidence base and thus facilitate the decision-making process.

Artificial intelligence, a branch of computer science, is intelligence demonstrated by machine that mimics human intelligence, such as reasoning, recognition, and problem solving. One of the benefits of AI is the ability to create many plausible analytic models with minimum work effort and to analyze large amounts of data. There have been studies assessing how AI could help with hospital or health system planning with a focus on how AI-informed support systems could lead to efficiency gains in resource utilization. The use of AI in medical research has focused on several areas including radiology and imaging, pathology, ophthalmology, dermatology, genetics, oncology, neurology, endocrinology, mental health, and critical care. The most mature applications are in radiology and imaging, and pathology, which reflects the fact that AI is able to detect complex and previously unknown patterns in immense amounts of data used to inform the diagnosis of various diseases.

Despite the huge promise of AI in health care, experts caution that its potential is currently limited by data quality issues and a lack of defined evidence standards. A major barrier to greater adoption of AI is the level of confidence of decision-makers in the appropriateness of the algorithms used. Further, she also added various examples of algorithms used in decision making of health care. And added the challenges with AI / ML in HEOR/ HSOR.





There was a question-and-answer session where staff and students clarified their doubts related to health outcomes research. A total of 109 participants were present in the session.

Report submitted by: DR S Ponnusankar, Professor & Head, Dept. of Pharmacy Practice