

**Department: CSE | Date: 31<sup>st</sup> January to 04<sup>th</sup> February, 2022**

**One Week Faculty Development Programme on**  
**"Artificial Intelligence and Machine Learning"**

The Department of Computer Science and Engineering, Sree Vidyanikethan Engineering College organized a one week faculty development programme on "Artificial Intelligence and Machine Learning" from 31<sup>st</sup> January to 04<sup>th</sup> February 2022.

The core idea of the programme was to provide a exposure to the faculty and research scholars fundamentals of AI and Machine Learning algorithms. Our focus is to improve the AI skills and enhance their understanding regarding the Machine Learning algorithms. This FDP enabled participants to understand the modern AI algorithms and machine learning concepts to enhance and extend applications to solve real world problems. Participants learnt advanced topics in Machine Learning which will pave the way to become an expert in Data Science.

**31.01.2022** – On Day One forenoon session, Dr. E. Sreenivasa Reddy, Professor and Principal, University College of Engineering, Acharya Nagarjuna University, introduced the concepts of Artificial Intelligence and discussed about various Uninformed Search Strategies. During afternoon session, Dr.J.Avanija, Associate Professor of CSE, Sree Vidyanikethan Engineering College discussed about Informed Search Strategies and Heuristic Functions.

**01.02.2022** – On Day Two forenoon session, Dr.B.Narendra Kumar Rao, Professor & Head, Department of CSE, Sree Vidyanikethan Engineering College discussed about Local Search Algorithms and Optimization Decisions in game. During afternoon session, Dr.V.Anantha Natarajan, Associate Professor of CSE, Sree Vidyanikethan Engineering College introduced the concepts of Perceptrons, Multilayer Networks and Back Propagation Algorithms, Stochastic Gradient Descent Algorithm .

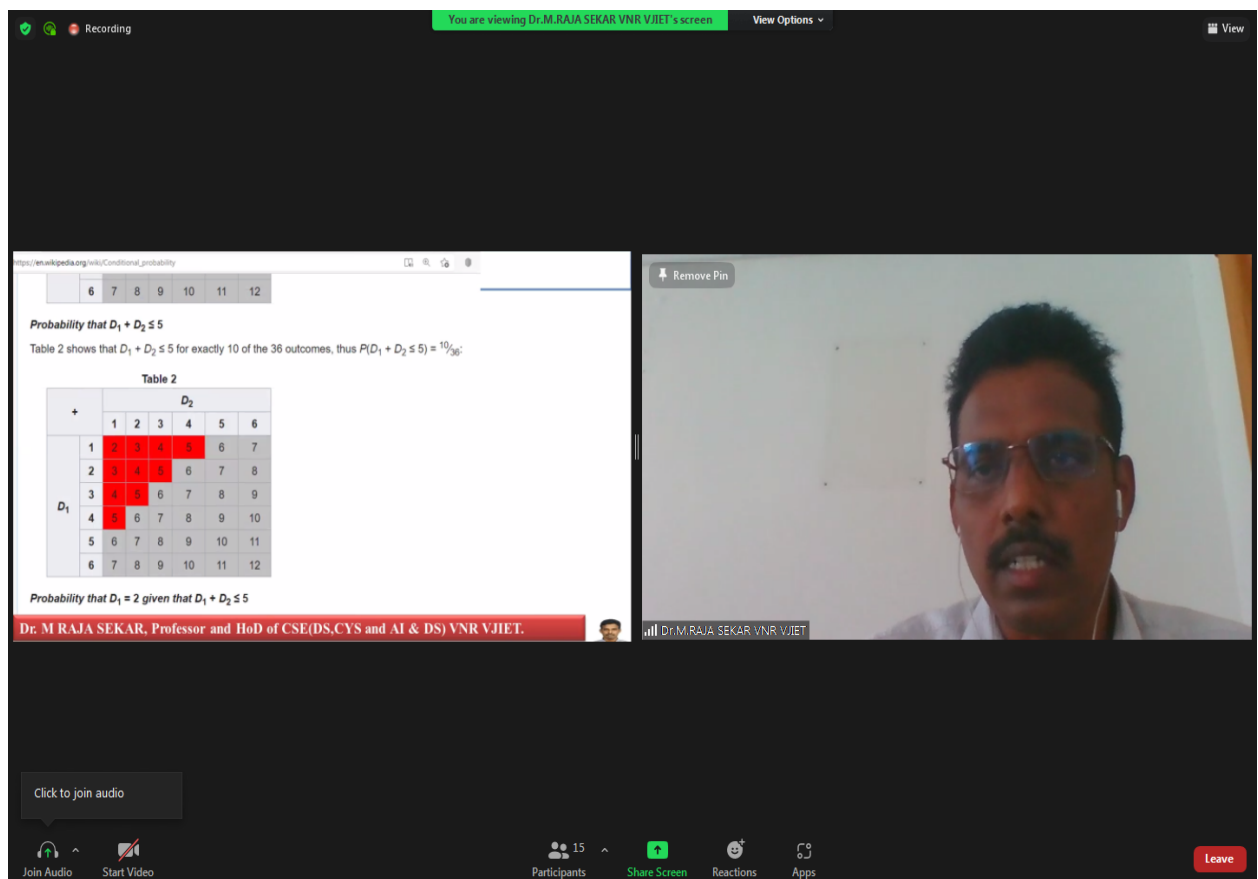
**02.02.2022** – On Day Three forenoon session, Dr.K.Jayakumar Associate Professor, School of Computer Science and Engineering, VIT University, Vellore introduced the concepts of Hypothesis Space Search and Inductive Bias, Hidden layer Representations, Generalization, Overfitting and Stopping Criterion. During afternoon session, M.Raja Sekhar, Professor and HoD, (CSE-CS, DS and AI & DS), VNR VJIET, Hyderabad discussed about Naïve Bayes Classification.

**03.02.2022** – On Day Four forenoon session, Dr.M.Govinda Rajan, Associate Professor, Annamalai University, Chidambaram, discussed about Bayesian Belief Networks, EM (Expectation-Maximization) Algorithm. During afternoon session, Dr.G.Sunitha, Professor, CSE, Sree Vidyanikethan Engineering College introduced kNN and Instance based Learning.

**04.02.2022** – On Day Five Dr.V.Anantha Natarajan, Associate Professor of CSE, Sree Vidyanikethan Engineering College introduced Decision Trees, Ensemble Methods, Bagging, Gradient Boosting, Xgboosting, Pruning in decision trees and handling over fitting

### Outcomes of the Programme:

- The participants acquired skills about Artificial Intelligence and Machine learning to produce promising outcomes in the teaching and learning practices.
- The members of faculty gained knowledge about various aspects of Artificial Intelligence and Machine Learning which will help them to design curriculum for Artificial Intelligence and Machine Learning related courses.



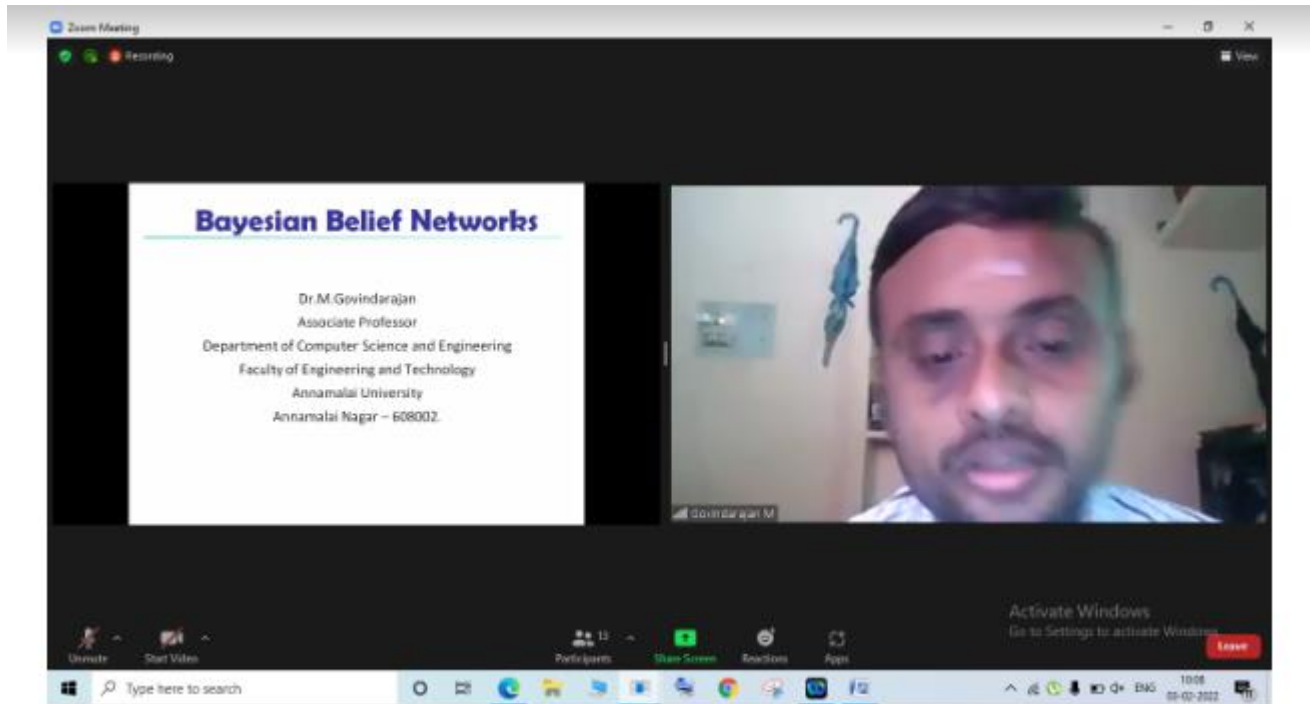
The screenshot shows a Zoom meeting interface. The main content is a presentation slide from a Wikipedia page titled "Conditional probability". The slide discusses the probability that  $D_1 + D_2 \leq 5$  based on a table of outcomes for two dice rolls,  $D_1$  and  $D_2$ . The table shows 36 possible outcomes, with 10 outcomes highlighted in red where the sum is less than or equal to 5. The text states: "Table 2 shows that  $D_1 + D_2 \leq 5$  for exactly 10 of the 36 outcomes, thus  $P(D_1 + D_2 \leq 5) = \frac{10}{36}$ ".

		$D_2$					
		1	2	3	4	5	6
$D_1$	1	2	3	4	5	6	7
	2	3	4	5	6	7	8
	3	4	5	6	7	8	9
	4	5	6	7	8	9	10
	5	6	7	8	9	10	11
	6	7	8	9	10	11	12

Below the table, it states: "Probability that  $D_1 = 2$  given that  $D_1 + D_2 \leq 5$ ".

The video feed shows Dr. M. Raja Sekar, Professor and HoD of CSE(DS, CYS and AI & DS) VNR VJET, speaking during the session.

**Dr.M.Raja Sekar delivering session on Naïve Bayes Classifier**



**Dr.M. Govinda Rajan delivering session on EM Algorithm**

**HOD,CSE**