Sarvajanik University
Sarvajanik College of Engineering & Technology
Department of Information Technology

Report of Expert Talk on
"State Space Search Techniques in AI"
held at
Department of Information Technology, SCET on 22nd February, 2023

Objective of the Talk

Artificial Intelligence (AI) involves using computers to do things that traditionally require human intelligence. AI can process large amounts of data in ways that humans cannot. Today, the amount of data that is generated, by both humans and machines, far outpace humans' ability to absorb, interpret, and make complex decisions based on that data. Artificial intelligence forms the basis for all computer learning and is the future of all complex decision-making. Search algorithms are one of the most important areas of Artificial Intelligence. Problem-solving agents in AI mostly use search strategies or algorithms to solve a specific problem and provide the best result.

This talk is about 'State Space Search' which is used to explore all potential configurations or states of an instance until one with the necessary feature is found. A State Space Search representation allows for the formal definition of a problem that makes the move from the initial state to the goal state. This talk also covers a discussion of uninformed and heuristic search techniques which will definitely help students in solving various real-life problems.

Event Details:

The details about the event are as follows:

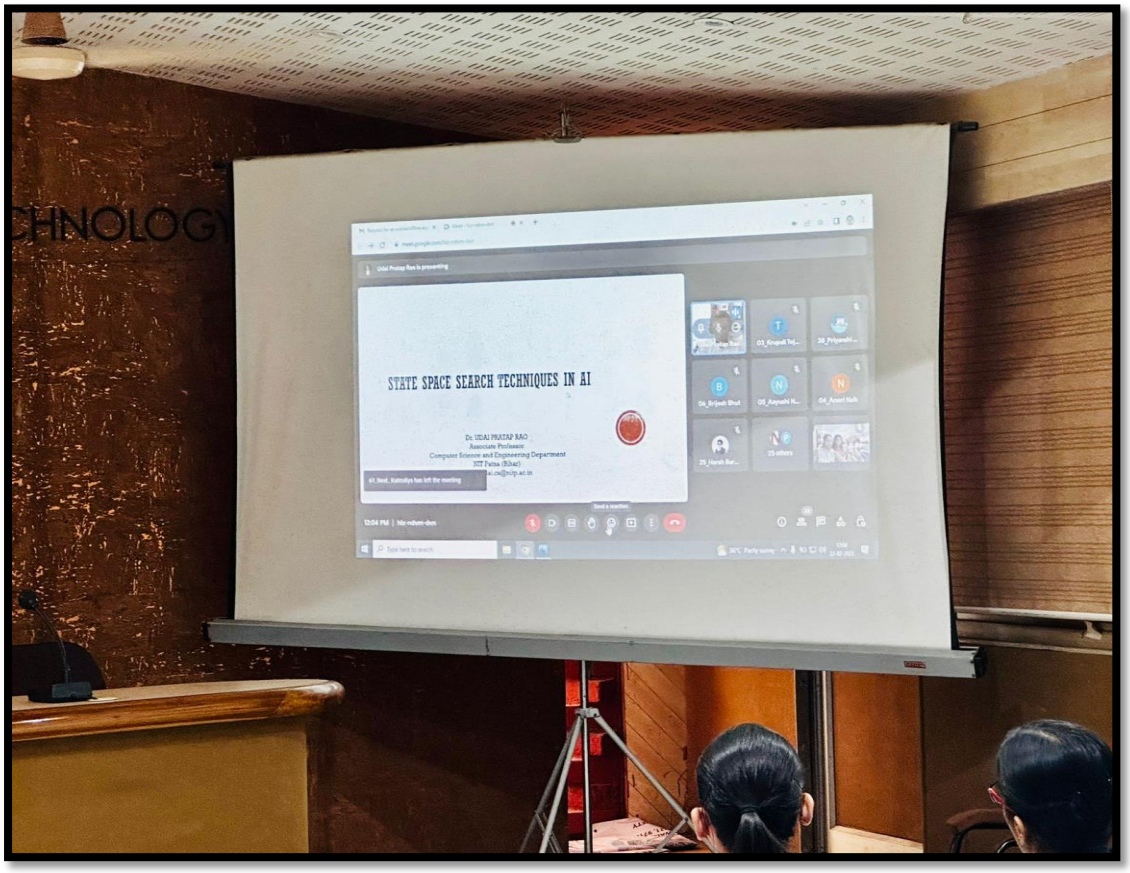
Speaker	**:**	**Dr. Udai Pratap Rao** **Associate Professor** **Computer Science and Engineering Department,** **National Institute of Technology Patna,** **Bihar**
Topic	**:**	**State Space Search Techniques in AI**
Date & Time	**:**	22nd February 2023 (12:00 PM – 1:00 PM)
Venue	**:**	N.J. Seminar Room, SCET
Coordinator	**:**	Dr. Dhruti Sharma
Participants	**:**	120+ Students and Faculty members 70+ Participants joined the session in Offline mode at Seminar Hall and rest have joined in Online mode from Laboratory

The session was started with fundamentals of Artificial Intelligence followed by the following major concepts:

- Importance of AI
- Different types of Search Techniques – Uninformed and Informed Search with examples
- BFS and DFS
- Heuristic Search
- Measuring Search Performance
- A* Algorithm

Towards the end, a question-answer session was conducted where different queries from students were attended by Dr. Udai P. Rao. The session ended with a Vote of Thanks from Dr. Dhruti Sharma.

Glimpses of the Event



SEMINAR HALL

Acknowledgements

The coordinator is grateful to **Dr. Mita Parikh, HOD, IT Dept** for her guidance and co-operation in arranging the expert talk. The department extends sincere gratitude towards **Dr. Hiren Patel, Principal, SCET** and **Dr. Chirag Paunwala, Dean R & D, SCET** for encouraging the staff members to organize such an event. We are thankful to Sarvajanik University for providing the necessary infrastructure to conduct the event.

**********Thank You**********