



SCHOOL OF
ENGINEERING



Dayananda Sagar University

Devarakaggalahalli, Harohalli Kanakapura Road, Ramanagara, Karnataka 562112

Department Of Computer Science & Engineering
(Artificial Intelligence & Machine Learning)

REPORT ON

“LEVERAGING THE POWER OF AI WITH INNOVATIVE APPLICATIONS”

Resource person: Dr. Safak Dogan

Organized by

Department Of Computer Science & Engineering
(Artificial Intelligence & Machine Learning)

Dayananda Sagar University
4th APRIL 2025

Resource person:

Dr. Safak Dogan

Loughborough University London, U.K.

Chief Patrons:

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Convener:

Dr. JAYAVRINDA VRINDAVANAM V, Chairperson, and Professor, Department of CSE (AI & ML), DSU

Faculty Coordinators:

Dr. Mude Nagarjuna Naik, Assistant Professor, Department of CSE (AI & ML)



DAYANANDA SAGAR UNIVERSITY

Deverakaggalahalli, Harohalli, Kanakapura Rd, Dist. Ramanagara, Karnataka-562112



SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

GUEST LECTURE ON:

“LEVERAGING THE POWER OF AI WITH INNOVATIVE APPLICATIONS”

Resource person : Dr. Safak Dogan
Loughborough University London, U.K.



Targeted Audience:

4th Semester AIML

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CONVENER:

- **Dr. Jayavrinda Vrindavanam V**
Professor & Chairperson CSE (AI & ML), DSU



04th April, 2025



12.30 PM to 1.30 PM



SOE, LH 1

STAFF COORDINATORS

Dr. Mude Nagarjuna Naik

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4th sem- D Section, CSE(AI & ML)

Figure 1: Technical Talk Poster

Event Report

Dr. Safak Dogan, an esteemed expert in the field of artificial intelligence, recently delivered a captivating technical talk at Dayananda Sagar University, enlightening 2nd year students on the vast realm of AI and its innovative applications. His talk was not just informative but also inspiring, shedding light on the transformative potential of AI in various industries. Dr. Dogan commenced his discourse by delving into the fundamentals of AI. He artfully navigated through complex topics, making them accessible and engaging for the students. Furthermore, he elaborated on the wide-ranging applications of AI, from industrial automation and healthcare advancements to space exploration and cutting-edge research. His insights into **leveraging the power of AI with innovative application** and its impact on society left the audience in awe of the endless possibilities that this field presents. Overall, Dr. Safak Dogan's technical talk was a resounding success, leaving an indelible impression on the young minds at Dayananda Sagar University and igniting their passion for AI career.

Dr. Jayavrinda Vrindavanam, an esteemed figure in the academic landscape, played a crucial role in elucidating the significance of "Artificial Intelligence and Machine learning" to the students at Dayananda Sagar University, along with welcoming the chief guest and the gathering.

Dr. Safak Dogan, gave insight and details on the real-world scenarios along with the challenges faced by the engineers during processing the data and getting conclusions to train the AI model.





Figure 2: Dr. Safak Dogan discussing the respective topics.

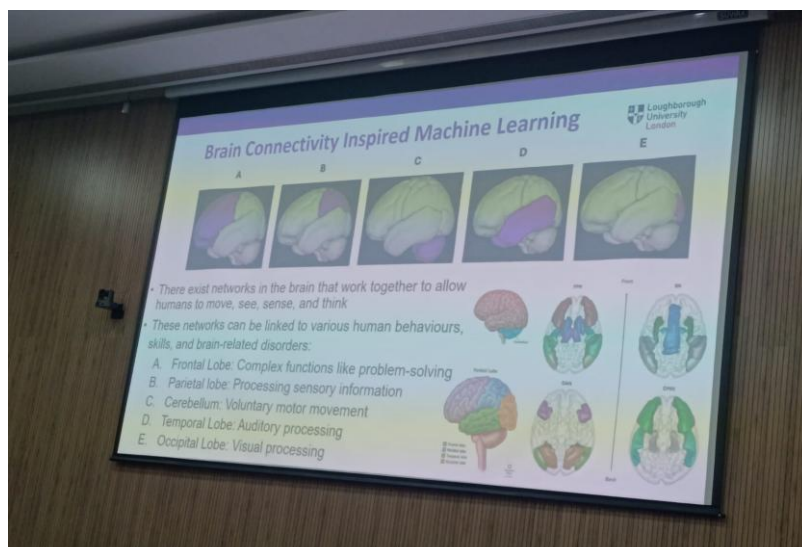


Figure 3: Dr. Safak Dogan spoke on the Brain Connectivity Inspired Machine Learning, that is the ongoing project working over.

Subject: The slide presented a discourse on Brain Connectivity Inspired Machine Learning.

Premise: It posited that the inherent network organization of the human brain correlates with human behaviors and cognitive functions.

Application: The presentation suggested leveraging these neurological principles to advance machine learning methodologies.

Detail: Specific cerebral lobes and their respective functions were delineated.

Visual Aids: The slide incorporated illustrative brain imagery to elucidate the presented concepts.

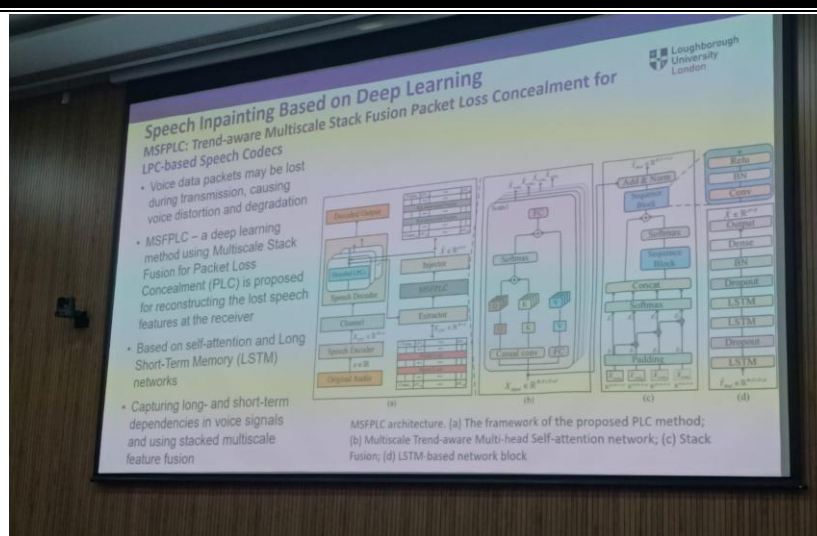


Figure 4: Dr. Safak Dogan spoke on the Speech Inpainting Based on Deep Learning, that is the ongoing project working over.

Subject: The slide detailed a methodology for Speech Inpainting Based on Deep Learning.

Method: It presented MSFPLC, a Trend-aware Multiscale Stack Fusion Packet Loss Concealment technique.

Application: MSFPLC reconstructs lost speech features at the receiver.

Technology: It utilizes self-attention and Long Short-Term Memory (LSTM) networks.

Objective: The method captures long- and short-term dependencies in voice signals using stacked multiscale feature fusion.

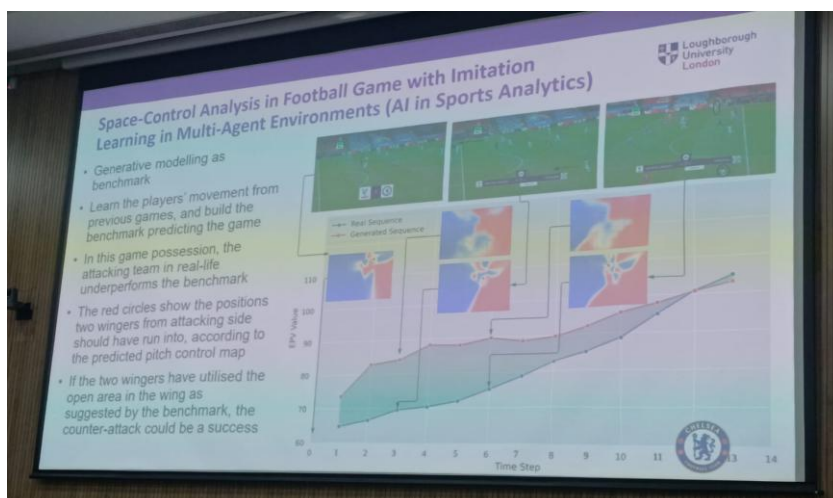


Figure 5: Dr. Safak Dogan spoke on the Space- Control Analysis in Football Games with Imitation Learning in Multi-Agent Environment (AI in Sports Analysis), that is the ongoing project working over.

Subject: The slide presented a study on Space-Control Analysis in a Football Game with Imitation Learning in Multi-Agent Environments, focusing on AI in Sports Analytics.

Methodology: It utilizes generative modeling as a benchmark to learn player movements and predict game outcomes.

Analysis: The analysis compares real-time attacking team performance against the established benchmark.

Visualization: The slide includes visual representations of player positions and pitch control, with red circles indicating predicted player movements.

Application: The research aims to assess the effectiveness of counter-attacks based on the model's predictions of open space utilization.



Figure 6: Felicitation of the Honoree

The lecture hall buzzed with energy as students, inspired by the Dr. Safak Dogan's insights, felt a renewed drive towards pursuing careers in AI development.



Figure 7: Dr. Mude Nagarjuna Naikgivesa vote of thanks.

Following the impactful lecture, Dr. Mude Nagarjuna Naikinitiated the vote of thanks, speaking on behalf of the students and the institution. Her address transitioned from formal acknowledgments to genuine expressions of gratitude. She thanked the honored guests for their presence and the wisdom they imparted. The organizing committee's dedicated work in the event's planning and execution was also recognized. Their efforts were met with sincere appreciation from the audience.



Figure 8: Students interaction with guest.

Upon the conclusion of Dr. Safak Dogan's presentation, the students displayed a keen interest in the topic. Rather than a simple departure, a group of students approached the faculty members, actively seeking further information and clarification on the points raised during the speech.





Figure 7: Group photos of the event.

Dr. Mude Nagarjuna Naik
Assistant Professor, CSE (AI & ML), DSU.