Session on Computational Neuroscience and Human Cognition with Dr. N. Apurva Ratan Murty

On 25 July 2025, the Dayalbagh Educational Institute hosted an interactive session titled "Brains, Minds, and Machines: Lessons from Human Brains for Artificial Systems" led by Dr. N. Apurva Ratan Murty. The event brought together students and faculty from across disciplines for a compelling discussion at the intersection of neuroscience, cognitive science, artificial intelligence, and consciousness.

Dr. Murty is the Smithgall-Watts Endowed Assistant Professor of Cognition and Brain Science at the Georgia Institute of Technology (USA), where he directs the Vision, Cognition, and Computation Lab. His research lies at the forefront of understanding how the brain perceives and learns, and how insights from neuroscience can guide the development of next-generation machine intelligence systems.

A member of the Dayalbagh Divinity Study Forum, Dr. Murty earned his doctorate from the Indian Institute of Science (Bengaluru) and conducted advanced postdoctoral research at the Massachusetts Institute of Technology (USA), collaborating with leading figures in neuroscience. His work has received wide recognition, including the Institute Medal from Indian Institute of Science, the Young Systems Scientist Award from the Systems Society of India, the NIH Pathway to Independence Award, and Stanford's "Leader of the Next Generation" honor, among others.

In his session with DEI faculty and students, Dr. Murty presented an overview of the architecture of the human brain and mind, illustrating how the brain performs high-level cognitive tasks and how insights from neural systems can inform the design of more intelligent and resilient AI. Drawing from his own research at MIT and Georgia Tech, Dr. Murty especially underscored the pressing need for stronger connections between neuroscience, cognitive science, and AI.

The session was highly interdisciplinary and was followed by engaging and wide-ranging discussions with students from computer science, cognitive science, psychology, and mathematics from DEI. Questions spanned topics from the ethics of AI to the challenges of modern deep learning systems. Dr. Murty's lucid explanations, welcoming nature, clarity of thought, and willingness to engage deeply with student questions created an atmosphere of genuine intellectual exchange.

For many attendees, the session was both intellectually stimulating and personally inspiring. Several students expressed that it broadened their understanding of what interdisciplinary research can achieve when anchored in deep curiosity, rigor, and reflection. The session also reaffirmed DEI's commitment to fostering dialogue between emerging scientific frontiers and its academic community, and to exploring new connections between science, engineering, and consciousness studies.

Dr. N. Apurva Ratan Murty, Smithgall-Watts Endowed Assistant Professor of Cognition and Brain Science and Director of the Vision, Cognition, and Computation Lab at the Georgia Institute of Technology (USA) leading an interactive session titled "Brains, Minds, and Machines: Lessons from Human Brains for Artificial Systems" organized at DEI.