Guest Lecture on "AI for Mental Health: Transforming Minds Through Technology"

The **Electronics and Communication Engineering Department** organised an expert talk titled **"AI for Mental Health: Transforming Minds Through Technology"** on 14th March from 9:30 AM to 12:00 PM at the Dr. M. V. Jayaraman Auditorium, with Dr. Sriram Ganapathy, Professor, IISc Bengaluru, as the distinguished resource person. Around 300 students attend the session. The session aimed to create awareness about mental health challenges, highlight the complexities involved in assessing psychological well-being, and introduce students to the growing role of Artificial Intelligence in scalable healthcare solutions. The event commenced with a warm welcome address by Aamni from the 6th semester, followed by the presentation of a bouquet to the guest by Dr. Shima Ramesh Maniyath, HOD, ECE.

Figure 1: Dr. Shima Ramesh Maniyath, HOD of ECE, felicitating guest speaker Dr. Sriram Ganapathy at the event.

Objectives of the Event

The primary objectives of the event were:

- To create awareness among students about the importance of mental health and the growing challenges faced by different sections of society, especially the youth.

- To explain the complexities involved in assessing mental health due to subjective symptoms, social stigma, and lack of accessible diagnostic tools.

- To introduce the role of Artificial Intelligence in mental health screening, monitoring, and large-scale healthcare delivery.

- To familiarise students with national initiatives, including the National Mental Health Survey, AI Centres of Excellence, and IISc's TANUH initiative.

- To encourage interdisciplinary thinking, bridging electronics, AI, healthcare, and social impact.

- To engage students academically through interactive AI-related quizzes and discussion sessions.

- To inspire students to explore research and innovation in healthcare AI, mental health technology, and population-scale solutions.

Event Overview

Dr. Sriram Ganapathy delivered an insightful and highly informative session that explored a wide spectrum of themes connecting mental health and artificial intelligence. He began by explaining what mental health truly encompasses, emphasising emotional balance, psychological resilience, and overall well-being. He then highlighted why assessing mental health remains challenging, noting issues such as the subjectivity of symptoms, societal stigma, lack of quantifiable diagnostic markers, and limited availability of trained mental health professionals. The talk further covered key insights from the National Mental Health Survey, presenting India's prevalence rates, treatment gaps, and the urgency for scalable solutions. Dr. Ganapathy also discussed mental health patterns across the general population and the rising concerns among students, including academic pressure, digital addiction, and stress-related disorders. He outlined what AI can offer to this domain, including speech-based analysis, behavioural monitoring, predictive modelling, and early screening tools. Addressing India's mental health challenges, he pointed out critical gaps in access, affordability, technology adoption, and workforce availability.

He also introduced the MeDHA Framework, an AI-enabled approach for mental health assessment, and elaborated on future plans aimed at building scalable, accessible, and technology-driven support systems. One of the major highlights of the session was the discussion on the TANUH Initiative at IISc, a population-scale

healthcare AI project leveraging speech and language technologies for public health impact. Dr. Ganapathy also reflected on the lack of AI success stories in health, explaining the real-world challenges in validation, deployment, and public acceptance. He concluded by highlighting the Government of India's efforts in establishing AI Centres of Excellence to strengthen research and innovation in this field. To keep students actively involved, an AI-based quiz was conducted during the session, making the event engaging, interactive, and intellectually stimulating.

Figure 2: Dr. Sriram Ganapathy delivering an impactful session, helping students understand the complexities of mental health and the transformative role of AI in addressing these challenges at a population scale.

Figure 3: An engaging moment from the session where Dr. Sriram Ganapathy explains how AI-driven initiatives like TANUH are shaping population⊠scale mental health solutions.

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Outcomes and Impact

The event had a significant impact on the participants by deepening their understanding of both mental health challenges and the growing role of technology in addressing them. Students gained valuable insights into the complexities involved in mental health assessment and the urgent need for scalable, accessible solutions in the Indian context. Dr. Sriram Ganapathy's discussion on AI driven approaches, such as speech based evaluation, behavioral analysis, and the MeDHA and TANUH frameworks, broadened students' perspectives on interdisciplinary applications of electronics, artificial intelligence, and healthcare.

The session inspired many to consider research and innovation opportunities in mental health technologies and population-scale AI solutions. The interactive AI quiz further enhanced engagement, making the learning experience enjoyable and intellectually stimulating. Overall, the event strengthened students' awareness, encouraged critical thinking about real world healthcare problems, and motivated them to explore how technology can contribute to building a healthier and more inclusive society.

Conclusions

In conclusion, the expert talk on "AI for Mental Health: Transforming Minds Through Technology" proved to be an enlightening and impactful session that successfully blended awareness, technical knowledge, and student engagement. Dr. Sriram Ganapathy's comprehensive presentation helped students gain a deeper understanding of the complexities of mental health and the transformative potential of AI in addressing these challenges at a population scale. The discussion on frameworks like MeDHA and initiatives such as TANUH broadened their perspective on interdisciplinary research and real world healthcare applications. The interactive quiz further enhanced participation and reinforced key concepts in an engaging manner. Overall, the event not only enriched students' academic understanding but also inspired them to explore innovative AI driven solutions for societal well-being, making it a valuable and meaningful learning experience.

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