Department Of Electronics and Communication Engineering

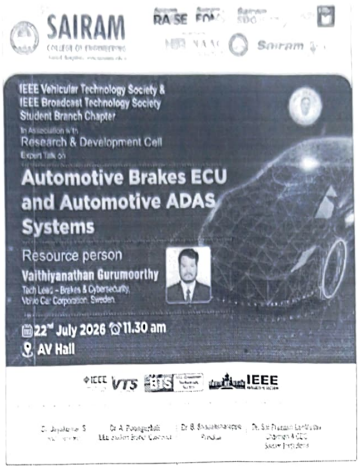
Report on Expert Talk

The Department of Electronics and Communication Engineering, in association with the IEEE Vehicular Technology Society & IEEE Broadcast Technology Society Student Branch Chapter and the Research & Development Cell, organized an Expert Talk on **22.07.2026 at 11:30 a.m.** The session was delivered by **Mr. Vaithiyanathan Gurumoorthy, Tech Lead – Brakes & Cybersecurity, Volvo Car Corporation, Sweden**.

The **Principal Dr. B. Shadaksharappa i**nteracted with the resource person and discussed recent advancements in automotive technology and industry–academia collaboration.

The program commenced with a welcome address by **Dr. A. Poonguzhali, Head of the Department and IEEE Student Branch Counselor,** followed by the introduction of the resource

person by Dr. S. Jayakumar, Research & Development Coordinator. The expert shared valuable insights into the architecture and working principles of Automotive Brake Electronic Control Units (ECUs), highlighting their role in vehicle safety, braking performance, and system reliability. He explained how ECUs continuously monitor sensor inputs and execute real-time braking decisions to enhance vehicle stability and passenger safety. The session also covered the integration of embedded systems, communication protocols, and electronic sensors used in modern automotive applications. Participants gained an understanding of how advanced software and hardware work together to improve vehicle performance and reliability.



The speaker discussed current industrial practices followed in the design, testing, and validation of automotive control systems. He also shared his professional experience at Volvo Car Corporation, providing valuable insights into the latest developments and challenges in the global automotive industry. He also explained the fundamentals of Advanced Driver Assistance Systems (ADAS), including technologies such as adaptive cruise control, lane keeping assistance, automatic emergency braking, and sensor fusion.

Students gained practical exposure to real-world automotive applications and learned about industry expectations, emerging technologies, and career opportunities in the automotive electronics domain.

The interactive question-and-answer session enabled students and faculty members to clarify their doubts and engage with the expert on current advancements in automotive technology. The program proved to be highly informative and beneficial, successfully bridging the gap between academic concepts and industrial practices.

The Department sincerely thanks the Management, the Principal, the Head of the Department, the IEEE Student Branch Chapter, the Research & Development Cell, and the resource person for their support in making the event a grand success.

23/07/26
Coordinator

24/07/2026

23/7/26
H.O.D