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A Report on Alumni Guest Seminar on
"Automotive Software Development and its Tools and Protocols"
Organized by Department of Electronics & Communication Engineering
03-02-2024

Guest Lecture by Goutham Naidu   **Guest Lecture by Badri Ganesh babu**

Submitted by: Mr. Ramesh E, Assistant Professor & Alumni Coordinator, Department of ECE,

Event Coordinator: Mr. V Vamsi Krishna, Assistant Professor, Department of ECE, Mr. G. Charan Kumar, Assistant professor, Department of ECE.
Resource Person: Mr. Goutham Naidu, Senior Engineer, Bangalore & Mr. Badri Ganesh babu, CEO at G2RK IT Technologies Pvt. Ltd., Bangalore.
Report Received on 08.02.2024
Date and Time: 3rd February 2024, 11:00AM to 2:00 PM
Venue: Madanapalle Institute of Technology & Science.
Mode of Conduct: Offline

Introduction:

The alumni guest lecture on " Automotive industry and Software development tools and protocols " was held on February 3rd , 2024, at 11:00 AM. The event was organized by the Department of Electronics and Communication Engineering at MITS, Madanapalle. The guest speakers for the occasion were Mr. Goutham Naidu and Badri Ganesh, an esteemed alumnus of the institution. The event is completely focused on all branches of sciences such as electrical, electronic and mechanical design techniques and software tools design process development in Smart byte technologies, Bangalore. The Chief Coordinator for the occasion was Dr. Rajasekaran, Hod of ECE, Dr. Ramanathan, Vice Principal-Academics, MITS, attended for the Session.

Event Program:
11:00 PM - 11:15 PM : Registration
11:15 PM - 11:30 PM : Welcome Address by Student A. Sahana and Jahnavi with key note given by Dr. Rajashekharan, HOD-ECE.
11:30 PM - 11:40 PM : Key note given by Dr. Ramanathan, Vice principal Academics, MITS, Automation techniques and control
                      techniques in various industries.
11:40 PM -12:10 PM : Guest Lecture by Mr. Goutham Naidu.
12:10PM to 12:50PM: Guest Lecture by Mr. Badri Ganesh Babu.
12:50 PM - 1:00 PM : Interactive Q&A Session
1:00 PM - 1:15 PM   : Closing Remarks and Vote of thanks by A.Shahana and Jahnavi (Students of ECE,MITS)

Welcome Address:

The event commenced with a warm welcome by the Alumni Coordinator, acknowledging the presence of the esteemed guest, Mr.Goutham Naidu and Mr. Badri Ganesh Babu. The alumni coordinator expressed gratitude to Dr. S. Rajashekaran, Head of the Department, for his support in organizing the event. Attendees were encouraged to make the most of this valuable opportunity to gain insights from an experienced professional in the field.

Guest Lecture by Goutham Naidu:

Goutham Naidu began his talk by expressing his gratitude for the invitation and shared his journey from being an Electronics and Communication Engineering graduate to finding success in the software industry. He highlighted the evolving landscape of the job market and the increasing demand for engineers with a blend of electronics and software skills.

Guest Lecture by Badri Ganesh babu:

Badri Ganesh babu began his talk by expressing his gratitude for the invitation and shared his journey from being a Electronics and Communication Engineering graduate to finding success in the software industry. He highlighted the evolving landscape of the job market and the increasing demand for engineers with a blend of electronics and software skills.

Key Points Covered:

Changing Landscape of Industries: Mr. Goutham Naidu emphasized how industries, including Electronics engineering, are becoming increasingly reliant on software solutions. He discussed the impact of Industry 4.0 and the integration of technology in traditional sectors. He also explained how technological advancements would change climate and how geopolitical tensions will transform the global manufacturing landscape. He illustrated out the series of highlights from thought leaders in the manufacturing space and discussed how the future manufacturing industry stands in World Economic Forum where leading thinkers discuss the trends shaping advanced manufacturing. He explores key topics, such as frontier technologies, the workforce of the future, sustainable manufacturing and collaboration.

Importance of Software Tools: Mr. Goutham Naidu shed light on the significance of being proficient in various software tools commonly used in the industry. He outlined the objectives of AUTOSAR for standardizing the software architecture of automotive electronics system and gave instructions to students about how to improve software integration across different vehicle domains, promote the reusability of software components, enhance system reliability and safety, and enable the development of complex and innovative features in a cost-effective manner.

He discussed how knowledge of tools like AUTOSCAR and simulation software that can enhance an electronic engineer's employability. He also described that the **Electronic Design Automation** (**EDA**) is also referred to as **electronic computer-aided design** (**ECAD**) is a category of software tools for designing electronic systems such as integrated circuits and printed circuit boards. He explained how tools work together in a design flow that chip designers use to design and analyse entire semiconductor chips. Since a modern semiconductor chip can have billions of components, EDA tools are essential for their design;

Coding Knowledge for Electronics Engineers: Mr. Badri Ganesh babu stressed the importance of coding skills in today's job market. He explained how even basic coding knowledge can open up new opportunities and make engineers more versatile in the evolving technological landscape. He explained the short introduction about AUTOSAR, Autosar Software Architecture on the AUTOSAR – Application layer, Run-time Environment (RTE), Basic Software layer, Service layer, ECU Abstraction layer, Complex device drivers, Micro controller abstraction layer and AUTOSAR tools.

Success Stories: The guest speaker shared success stories of Electronics engineers who successfully transitioned into the software industry. These examples served as motivation for the attendees, highlighting the possibilities that arise when combining Electronics engineering expertise with software skills.

Interactive Q&A Session: The lecture was followed by an engaging question and answer session. Attendees had the opportunity to seek clarification on specific topics, share their experiences, and gain personalized insights from the guest speaker.

Closing Remarks: The event concluded with closing remarks expressing gratitude to Gautham Naidu and Badri Ganesh babu for his enlightening talk and valuable insights. Attendees were encouraged to apply the knowledge gained to their academic and professional pursuits. Dr.S.Rajashekaran, Head of the Department of ECE, expressed his appreciation for the alumni's continued support and commitment to the department's growth.

Conclusion: The alumni guest lecture on "Automotive Software Development and its Tools and Protocols" proved to be a resounding success, providing students with valuable insights into the evolving demands of the job market. The event served as a bridge between academia and industry, empowering students to explore diverse career paths and embrace the integration of software skills in their mechanical engineering journey.