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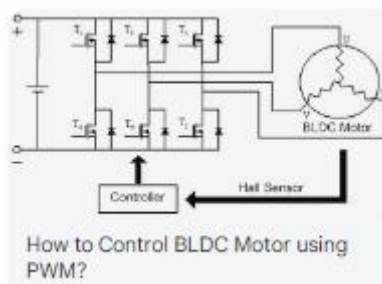
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# Sarvajanik College of Engineering & Technology, Surat

Instrumentation & Control Department

## Report on R&D Talk On Brushless DC Motor Control



#### Event Detail

18<sup>th</sup> October, 2024

Time: 2:00 to 4:30 pm

Venue: Advance Control Lab

Expert :

Dr. M.A. MULLA

(Professor, Electrical Dept., SVNIT, Surat)

Er. Abid Mansuri

(Sr. Engineer- R&D and Training, NiTech, Surat)

Participants: 20 students of BTech II, and BE IV

Mahmadasraf A. Mulla is an assistant professor in Electrical department of SVNIT, Surat. He has 26 years of experience in teaching, his area of research is in Power converters, electrical drives, and renewable energy integration. He has total 88 publications. Out of which, there are 8 book chapters, 42 journal articles, and 38 conference papers. Mr. Abid Mansuri is a senior engineer in NiTech Surat.

The objective of the lecture was to give students know-how of basics of brush-less dc (BLDC) motor and control strategies. Prof. Mulla covered the difference between simple dc motor and BLDC motor with animation. BLDC motors are also known as Electronically-commutated motor. He started with BLDC motors application in domestic fan, electric vehicles and consumer electronics etc due to low maintenance, and low noise and high efficiency. He covered the BLDC motor control using inverter and controller with PWM strategy in detail.

Mr. Abid Mansuri explained the implementation for BLDC motor driver using inverter and PI control strategy implemented in STM32 controller. He covered the framework for writing control program in embedded controller. Instead of writing c code for embedded controller, he simulated and implemented the code in waijung- simulink which is an Internet of Things (IoT) Development Platform for ESP32 and STM32 target.. He demonstrated the BLDC motor speed performance being constant with load/torque and without torque. The demonstration was very interactive and interesting.

Feedback received from the students are shown below.

Timestamp	Email Address	How do you evaluate the expert talk?	Did you gain in terms of knowledge increase from Expert	How would you rate the time given to expert session?
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Sessions?				
10/21/2024 14:24:30	sahilpatel3981@gmail.com	Excellent	Very Useful	Adequate
10/21/2024 14:44:13	kulkarniindranil123@gmail.com	Excellent	Useful	Adequate
10/21/2024 14:55:14	shivamvyas.ic21@scet.ac.in	Excellent	Very Useful	Adequate
10/21/2024 14:56:18	drashtijoshi3112@gmail.com	Excellent	Useful	Adequate
10/21/2024 14:56:37	vishnubagrawala.ic21@scet.ac.in	Excellent	Useful	Adequate
10/21/2024 15:00:41	rutubutani.ic21@scet.ac.in	Excellent	Useful	Adequate
10/21/2024 16:17:25	hitarthmakadia.ic23@scet.ac.in	Excellent	Useful	Adequate
10/22/2024 0:46:06	khushaldhameliya.ic23@scet.ac.in	Excellent	Useful	Adequate

The responses from the students indicates that the lecture was very effective.

Glimpses of the lectures:





Report Prepared by  
Tejal Joshi, Assistant Professor, Surat.