

## **Industrial Electronics: How Many Years?**

he history of the IEEE Industrial Electronics Society (IES) dates to 21 February 1951 [1]. By reading IEEE Xplore [1], we can take an interesting journey through the multidisciplinary area of industrial electronics. In the first article published in IEEE Transactions on Industrial Electronics, we could read, in an abstract, that "a combination of Fourier analysis of load voltage waveforms and Laplace transformation is applied for determining the performance of a separately excited dc motor fed from a choppercontrolled supply, under all modes of operation. The analysis takes into account the commutation interval, and the results show that contrary to the assumption made in works reported earlier, the commutation interval significantly affects the performance. For the case of continuous conduction, independent expressions for current and speed are obtained in terms of applied voltage, load torque, and chopper and machine parameters. However, in the case of discontinuous conduction. Fourier coefficients include speed voltage as an additional quantity, and hence the equations for current and speed have to be solved as simultaneous equations. The analysis is used to predict the steady-state and transient response. Computed torque-speed characteristics are compared with the results obtained experimentally" [1].

in that article are still valid, although in dissimilar applications and by using

We would find that the considerations

different tools. However. humans and industry are increasingly dependent on electrical drives. Is this an accident? I am sure it is not. The focus of the IES has always been up to date. During the 1950s, in Transactions of the IRE Professional Group on Industrial Electronics. Everett G. Henry wrote, "The certification of industrial heating equipment required by the

Federal Communications Commission's 'Rules and Regulations Relating to Industrial, Scientific, and Medical Service' is a subject of interest to all persons operating such equipment" [4]. Indeed, we are

**BY READING** IEEE XPLORE, **WE CAN TAKE AN INTERESTING JOURNEY THROUGH THE MULTIDISCIPLINARY AREA OF INDUSTRIAL** 

**ELECTRONICS.** 

finding new and robust solutions in almost every industrial area.

From the beginning, our Society has linked telecommunications (through the Institute of Radio Engineers) and power processing by means of electrical engineering, electronics, power electronics. IT. automation. control, standardization, medicine, and others. Our peers in IEEE sister Soci-

eties (Figure 1)—including the IEEE Power & Energy Society (PES), which has more than 125 years of history [5]; the IEEE Industry Applications Society (IAS) [6]; the IEEE Power Electronics



FIGURE 1 - The logos of the IES and its IEEE sister Societies.

Digital Object Identifier 10.1109/MIE.2021.3051788 Date of current version: 25 March 2021

Society (PES) [7]; and the IEEE Dielectrics and Electrical Insulation Society (DEIS) [8]—are complementary and excellent sources of support and experience. We have ideas such as IEEE's mission of "Advancing Technology for Humanity." The

PES is "Powering Us"; the IAS is "Linking Research to Practice"; the DEIS is "Protecting Us"; and the IES is "Linking Humanity With Industry."

All IEEE Societies are wonderful places to gain knowledge and experience and build relationships. Thanks to our predecessors and their effort, we have excellent opportunities to grow. Hopefully, the story will continue for following generations of students and

**IEEE IS A PLACE** WHERE ACADEMIA **AND INDUSTRY** JOIN, WHERE THE **UNIVERSITY MEETS** THE MARKET.

> masterpieces of human culture" [9]. Our members spend a lot of time on research, development, education, and volunteer duties. It gives an opportunity for students and young professionals to grow in an interesting atmosphere. The main values of IES are the people who spend their time for our society. S. Wyszynski used to say, "People say, 'Time is money'." And

> I say to you, "Time is love." On this we

base our activity.

young professionals. IEEE

is a place where academia

and industry join, where

the university meets the

market: "The university is

a wonderful means to an

end: the institution of the

university is one of the

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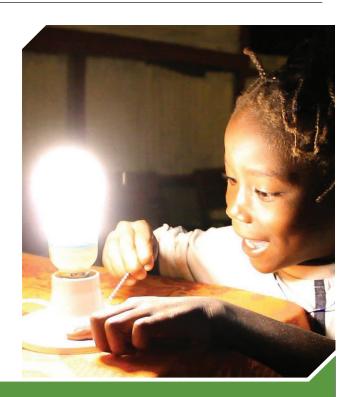


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