

Introduction to Industrial Motor Control

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Foreword

The “we” in this book refers to my two good friends, Dick Pipan and Fred Gunter, and me. They were my assistants in running this seminar for industry after many years of teaching it myself in the N.C. community college system. The book focuses on the practical troubleshooting considerations of working on motor controls and three phase motors. The book is designed to get you up to speed quickly. You will be able to solve two-thirds or more of all the electrical problems that you will ever encounter in a very short time frame.

The book is heavily oriented to making you a great troubleshooter. In the actual working classroom or lab, four-fifths of the time is spent building the circuits in the exercises. The reason that I do that is not to teach about the individual circuit *per se*. I want to generate teachable moments. I want to have random glitches pop up all the time that classes can use as troubleshooting opportunities. Anything that you can possibly think of that can go wrong with the components or the circuits will. To enhance this effect, I use a combination of old and new parts. I sort the parts before each new class, but I do not discard any parts or components that I suspect may be bad. I only mark or throw away student-identified defective parts.

To maintain additional control of safety in the lab setting I do not allow anyone to put electricity above 120 VAC on a circuit without first testing for dead shorts.

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