Preface

It is more than two decades since the subject of Power Electronics has entered the curriculum of undergraduate electrical engineering. In the past decade several universities had introduced postgraduate degrees with specialisation in Power Electronics. A number of Indian industries have been introducing into the market place an ever increasing number of Power Electronic products. The growth of academic research, and industrial development in this area has been substantial. The objective of these special issues is to present the diverse development and research work that is going on at several academic institutions in the country.

The previous issue covered the modern trends of faster power devices, soft switching topologies, and the application of modern control methods in power electronic converters. This issue presents a few more papers reflecting the trends.

The first paper by Mr. Majumdar et al., describes a new drive scheme suitable for the modern power device namely the MOS controlled Thyristor. The second paper by Dr. A. Joshi and Mr. R. Malhotra proposes a fuzzy logic controller applied to a dc to dc power converter and its performance in relation to a traditional PI controller. The third paper by Dr. P. K. Kalra evaluates a number of control schemes for a hvdc system feeding power into a weak system. The last three papers address an issue which is becoming more important namely the power quality issues associated with modern power systems. The paper by Dr. S. K. Biswas and Mr. B. Basak proposes a sine wave inverter as a power source for UPS applications. The paper by Dr. Bhim Singh gives an exhaustive prospective of active power line conditioners for improving the power quality. The last paper by Mr. Mahapatra et al., provides an improved active harmonic current compensation scheme employing a resonant dc link inverter.

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