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Preface to the T

Almost a decade has gone by since the first edition was published. The fundamental understanding of composites has changed, but many new advancements have been made, especially after the discovery of carbon nanotubes and increasing applications of composite materials in the aerospace industry in the 1950s, but also in other industries, including consumer goods and biomedical. It is now becoming a part of our daily lives.

The third edition is written to update the first two editions and applications.

Almost all the chapters in the book have been revised. In addition, example problems and chapter-end problems have been added to show the increasing range of applications and emphasize the material selection process. One section is on natural fibers and the other on carbon-carbon composites. Another section is on polymer-based nanocomposites, which are a new member of the composite family and are receiving growing attention from well as potential users.

As before, I have tried to maintain the focus on the processing and design of fiber-reinforced composites for senior-level undergraduate or first-year graduate students. They will be able to acquire a broad knowledge of the field. Numerous example problems and chapter-end problems will help them better understand and apply the concepts. The references cited in the book will help them go deeper into topics that are of interest.

I would like to thank the students who have used earlier editions of this book in the past. Their encouragement from several faculty members has helped them. Finally, the editorial and production staff of the publisher are acknowledged for their work and patience.