INDUSTRIAL AUTOMATION AND ROBOTICS
INDUSTRIAL AUTOMATION
AND
ROBOTICS

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The book is exhaustively upgraded and improved to incorporate the syllabi of various universities in India. It is specifically designed to serve the basic text for undergraduate and postgraduate course in “Industrial Automation and Robotics” for mechanical, production and industrial engineering students of Punjab Technical University, Jalandhar.

The preparation of the first edition was strongly motivated with the objective of presenting to the students a basic introduction in the field of Automation and Robotics. The second objective was to make the text interesting for students, which makes then grasp the subject by self-study. In the third edition we have retained the objectives and approaches for teaching multidisciplinary field of automation that were presented in the previous edition.

Suggestions from users have led us to incorporate many important changes in the third edition of the book. One of the most significant is the incorporation of number of new sections in the chapter of pumps and compressors, cylinders and motors, control valves, circuits, pneumatic logic circuits, fluidics, transfer devices and feeders and robotics. The circuit diagrams have been thoroughly explained step by step and problems from previous year’s question papers have been fully solved and incorporated in this edition.

Appreciation is expressed to those who have reviewed and/or made contributions in this new edition. We wish to express our sincere thanks to Mr. M.R. Aggarwal (I.A.S.) and Mr. A.K. Aggarwal (General Manager—Mahindra & Mahindra Farm Equipment Sector, Swaraj Division, Punjab Tractors Ltd.) who has suggested valuable guidelines.

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We hope that the revised edition of the book shall be liked by all the readers. Suggestions for the improvement of the book are welcome and will be incorporated in the next edition, with a view to make the book more useful.

—Authors
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