

MIT OpenCourseWare
<http://ocw.mit.edu>

Solutions Manual for Electromechanical Dynamics

For any use or distribution of this solutions manual, please cite as follows:

Woodson, Herbert H., James R. Melcher. *Solutions Manual for Electromechanical Dynamics*. vols. 1 and 2. (Massachusetts Institute of Technology: MIT OpenCourseWare). <http://ocw.mit.edu> (accessed MM DD, YYYY). License: Creative Commons Attribution-NonCommercial-Share Alike

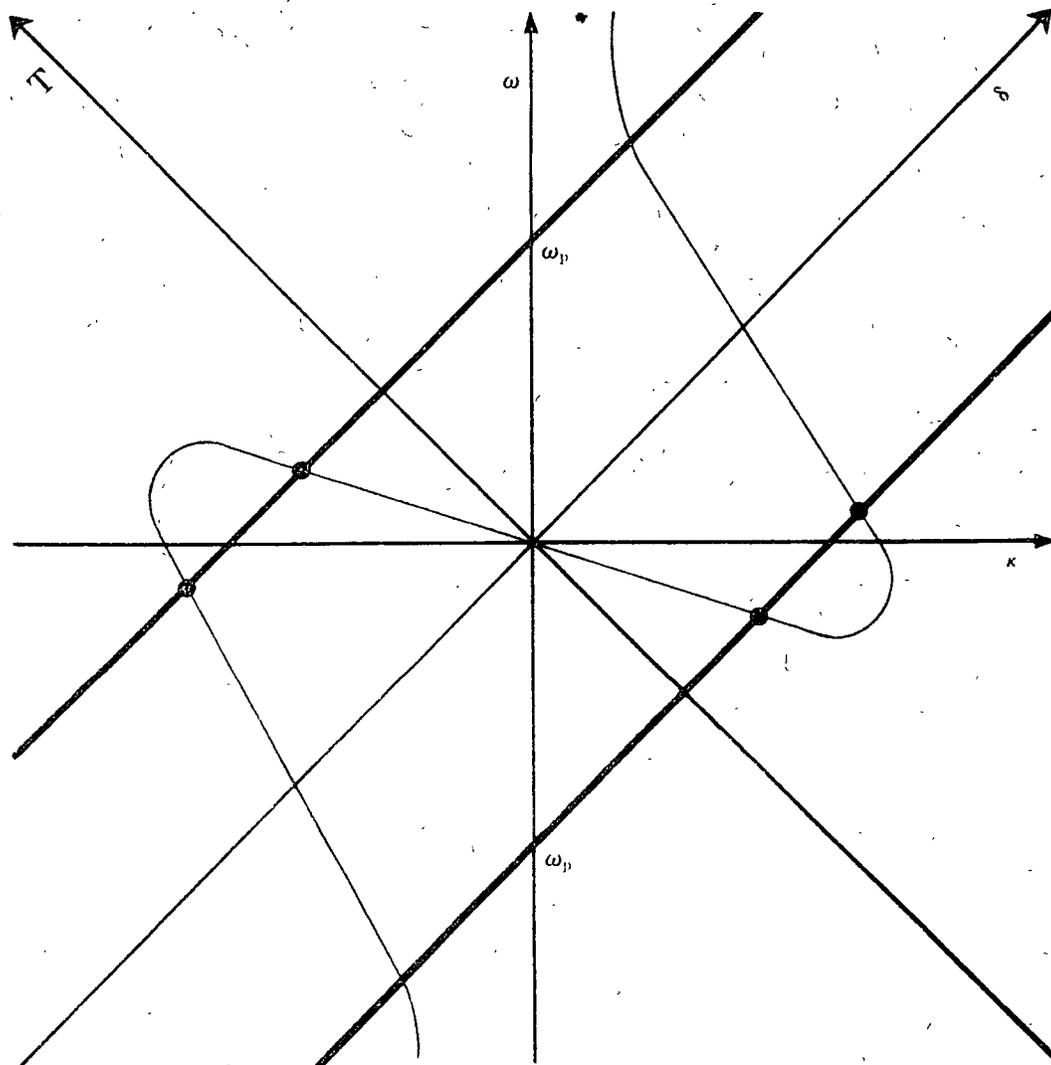
For more information about citing these materials or our Terms of Use, visit:
<http://ocw.mit.edu/terms>

SOLUTIONS MANUAL FOR

ELECTROMECHANICAL DYNAMICS

PART II: Fields, Forces, and Motion

HERBERT H. WOODSON JAMES R. MELCHER



JOHN WILEY & SONS, INC. NEW YORK • LONDON • SYDNEY

Mark Zabin

ELECTROMECHANICAL DYNAMICS

Part II: Fields, Forces, and Motion

HERBERT H. WOODSON

**Philip Sporn Professor of Energy Processing
Departments of Electrical and Mechanical Engineering**

JAMES R. MELCHER

**Associate Professor of Electrical Engineering
Department of Electrical Engineering
both of Massachusetts Institute of Technology**

JOHN WILEY & SONS, INC., NEW YORK · LONDON · SYDNEY

PREFACE TO: SOLUTIONS MANUAL FOR
ELECTROMECHANICAL DYNAMICS, PART II:
FIELDS, FORCES, AND MOTION

This manual presents in an informal format solutions to the problems found at the ends of chapters in Part II of the book, Electromechanical Dynamics. It is intended as an aid for instructors, and in special circumstances for use by students. We have included a sufficient amount of explanatory material that solutions, together with problem statements, are in themselves a teaching aid. They are substantially as found in our records for the course 6.06, as taught at M.I.T. over a period of several years.

Typically, the solutions were originally written up by graduate student tutors, whose responsibility it was to conduct one-hour tutorials once a week with students in pairs. These tutorials focused on the homework, with the problem solutions reproduced and given to the students upon receipt of their own homework solutions.

It is difficult to give proper credit to all of those who contributed to these solutions, because the individuals involved range over teaching assistants, instructors, and faculty, who have taught the material over a period of more than four years. However, significant contributions were made by D.S. Guttman, Dr. K.R. Edwards, M. Zahn, F.A. Centanni, and T.B. Jones, Jr. The manuscript was typed by Mrs. Barbara Morton, whose patience and expertise were invaluable.

H.H. Woodson

J.R. Melcher

Cambridge, Massachusetts

September, 1968