Book Announcements

WIESEL, W. E., *Space Flight Dynamics,* McGraw-Hill, New York, 1989, 323 pages.

Purpose: This book presents the newest developments and technologies in the field—all presented with an eye toward the 1990's.

Contents: Particle dynamics; two-body problem; Earth satellite operations; rigid-body dynamics; satellite attitude dynamics; gyroscopic instruments; rocket performance; re-entry dynamics; space environment; restricted problem; interplanetary trajectories; appendices.

INMAN, D. J., *Vibration with Control, Measurement, and Stability,* Prentice-Hall, Englewood Cliffs, NJ, 1989, 384 pages.

Purpose: This book contains a variety of new topics reflecting some changes in vibration analysis, measurement, and design that have occured in the past 20 years. Both experimental and modal analysis are interrelated and covered in depth.

Contents: Single degree of freedom systems; lumped parameter models; matrices and the free response; stability; forced response of lumped parameter systems; design considerations; control of vibrations; modal testing; distributed parameter models; formal methods of solution; operators and the free response; forced response and control; approximation of distributed parameter models; appendices.

SHABANA, A. A., *Dynamics of Multibody Systems,* Wiley, New York, 1989, 470 pages.

Purpose: This book presents the kinematics and dynamics of rigid and deformable bodies. The treatment covers a wide range of applications, including robotics, complex machine design, structural design, and motion analysis.

Contents: Introduction; reference kinematics; analytical techniques; mechanics of deformable bodies; classical approximation methods; finite-element formulation; computer implementation.

SHEVELL, R. S., *Fundamentals of Flight,* 2nd ed., Prentice-Hall, Englewood Cliffs, NJ, 1989, 416 pages.

Purpose: This book provides the reader with an introduction to the science and engineering of heavier-than-air flight vehicles. This edition includes a chapter on hypersonic flow.

Contents: A brief history of aeronautics; anatomy of the airplane; aerodynamic forces: dimensional analysis; theory and experiment wind tunnels; atmosphere; one-dimensional incompressible and compressible flows; two-dimensional flows; finite wing; effects of viscosity; drag calculations; aerodynamic performance; stability and control; propulsion; structures; hypersonic flow; rocket trajectories and orbits; appendices.

Errata

Markov Reliability Models for Digital Flight Control Systems

John McGough
Allied/Bendix Aerospace, Teterboro, New Jersey
and
Andrew Reibman and Kishor Trivedi
Duke University, Durham, North Carolina

[JGCD 12, 209–219 (1989)]

EQUATION (3) on page 214 was printed incorrectly in the published paper. The equation should appear as follows:

$$e^{Qt} = I + Qt + Q^2 \frac{t^2}{2!} + Q^3 \frac{t^3}{3!} \cdots \tag{3}$$

Optimal Terminal Maneuver for a Cooperative Impulsive Rendezvous

John E. Prussing and Bruce A. Conway
University of Illinois at Urbana-Champaign, Urbana, Illinois

[JGCD 12, 433–435 (1989)]

DURING production of the paper, two equations were inadvertently altered. On page 434, the equation following Eq. (10) should read:

$$L''(x) = -\frac{m_1}{c_1^2} e^{-x/c_1} - \frac{m_2}{c_2^2} e^{-(K-x)/c_2} < 0$$

On page 435, Eq. (11) should read:

$$\text{If } L'(p_1) \le 0 \quad \text{then } x^* = p_2 \tag{11}$$