LDS&S Newsletter 2003

Issued annually for the textbook *Linear Dynamic Systems and Signals*
Zoran Gajic, Prentice Hall, Upper Saddle River, New Jersey, 2003

Textbook website: *http://www.ece.rutgers.edu/~gajic/systems.html*

- ## *Solutions Manual*

  The first edition of the *Solutions Manual for Linear Dynamic Systems and Signals* textbook was published in May 2003. The manual features detailed solutions to all 491 problems. Its hard copy has 311 pages, font size 10, 6.5" x 9" format. The manual contains also the solutions to MATLAB-based problems with the corresponding MATLAB programs. The solutions manual is available in its electronic form. Instructors using this textbook should contact either Professor Zoran Gajic or Prentice Hall to get information how to download the *Solutions Manual*, *gajic@ece.rutgers.edu*

- ## *Solutions to MATLAB Laboratory Experiments*

  The first edition of the *Solutions to MATLAB Laboratory Experiments* for the textbook *Linear Dynamic Systems and Signals* was published in August 2003 featuring detailed solutions to 16 laboratory experiments formulated at the end of each chapter of the textbook. The hard copy of the manual contains 119 pages, using font size 10 and 6.5" x 9" format. The corresponding MATLAB programs are included in this manual. The supplement *Solutions to MATLAB Laboratory Experiments* is also available in its electronic form. Instructors should contact either Professor Zoran Gajic or Prentice Hall to get an access to this supplement.

- ## *PowerPoint Slides and PDF-Transparences*

  1005-page PowerPoint-slides and PDF-transparences were completed in October 2003. These slides/transparences also *feature some topics* not covered in the textbook, for example:
    - Finding the sinusoidal response via the Laplace transform, page 4-90.
    - Plotting approximate Bode diagrams using MATLAB, pages 12-71 to 12-73 (see also Problem 12.18 from the Solutions Manual).

  The slides/transparences are available in electronic forms. Please contact either Professor Gajic or Prentice Hall to get the link and password information.

- ## *Textbook Website*

  A very comprehensive textbook website, useful for both students and instructors, is available at *http://www.ece.rutgers.edu/~gajic/systems.html*. The site contains the following information:
    - Textbook table of contents and preface;
    - List of corrections/typos;
    - Useful linear systems and signals links;
    - Tables of standard transforms Fourier, Laplace, and Z;

- m-files of the MATLAB programs used in the textbook;
- Numerical data for dynamic systems considered in the textbook;
- Description of all laboratory experiments;
- Information about the textbook supplements
- Sample exams and their solutions;
- LDS&S newsletters.

- *Featured Topic*

  Two Formulations of Linear Discrete Time-Invariant Systems

  This topic is considered in detail in the textbook in Section 5.3 (pages 228-249), and represents the unique feature of this textbook, not found in any other undergraduate (nor graduate) textbook on linear dynamic systems. It unifies engineering systems and signal processing approaches to this class of linear systems and mathematical methods for solving difference equations describing dynamics of linear discrete time-invariant systems.

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Professor Zoran Gajic, Rutgers University
Department of Electrical and Computer Engineering
94 Brett Road, Piscataway, New Jersey 08854-8058