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Sommario/riassunto

Privacy in statistical databases is about finding tradeoffs to the tension between the increasing societal and economical demand for accurate information and the legal and ethical obligation to protect the privacy of individuals and enterprises, which are the source of the statistical data. Statistical agencies cannot expect to collect accurate information from individual or corporate respondents unless these feel the privacy of their responses is guaranteed; also, recent surveys of Web users show that a majority of these are unwilling to provide data to a Web site unless they know that privacy protection measures are in place. "Privacy in Statistical Databases 2004" (PSD2004) was the final conference of the CASC project ("Computational Aspects of Statistical Confidentiality", IST-2000-25069). PSD2004 is in the style of the following conferences: "Statistical Data Protection", held in Lisbon in 1998 and with proceedings published by the Office of Official Publications of the EC, and also the AMRADS project SDC Workshop, held in Luxemburg in 2001 and with proceedings published by Springer-Verlag, as LNCS Vol. 2316. The Program Committee accepted 29 papers out of 44 submissions from 15 different countries on four continents. Each submitted paper received at least two reviews. These proceedings contain the revised versions of the accepted papers. These papers cover the foundations and methods of tabular data protection, masking methods for the protection of individual data (microdata), synthetic data generation, disclosure risk analysis, and software/case studies.

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Sommario/riassunto

Covers PID control systems from the very basics to the advanced topics. This book covers the design, implementation and automatic tuning of PID control systems with operational constraints. It provides students, researchers, and industrial practitioners with everything they need to know about PID control systems from classical tuning rules and model-based design to constraints, automatic tuning, cascade control, and gain scheduled control. PID Control System Design and Automatic

Tuning using MATLAB/Simulink introduces PID control system structures, sensitivity analysis, PID control design, implementation with constraints, disturbance observer-based PID control, gain scheduled PID control systems, cascade PID control systems, PID control design for complex systems, automatic tuning and applications of PID control to unmanned aerial vehicles. It also presents resonant control systems relevant to many engineering applications. The implementation of PID control and resonant control highlights how to deal with operational constraints. Provides unique coverage of PID Control of unmanned aerial vehicles (UAVs), including mathematical models of multi-rotor UAVs, control strategies of UAVs, and automatic tuning of PID controllers for UAVs -Provides detailed descriptions of automatic tuning of PID control systems, including relay feedback control systems, frequency response estimation, Monte-Carlo simulation studies, PID controller design using frequency domain information, and MATLAB/Simulink simulation and implementation programs for automatic tuning -Includes 15 MATLAB/Simulink tutorials, in a step-by-step manner, to illustrate the design, simulation, implementation and automatic tuning of PID control systems -Assists lecturers, teaching assistants, students, and other readers to learn PID control with constraints and apply the control theory to various areas. - Accompanying website includes lecture slides and MATLAB/ Simulink programs PID Control System Design and Automatic Tuning using MATLAB/Simulink is intended for undergraduate electrical, chemical, mechanical, and aerospace engineering students, and will greatly benefit postgraduate students, researchers, and industrial personnel who work with control systems and their applications. '
