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Titolo	Privacy in Statistical Databases [[electronic resource]] : CASC Project International Workshop, PSD 2004, Barcelona, Spain, June 9-11, 2004, Proceedings / / edited by Josep Domingo-Ferrer, Vicenc Torra
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Descrizione fisica	1 online resource (X, 374 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 3050
Disciplina	005.8
Soggetti	Data structures (Computer science) Data encryption (Computer science) Database management Mathematical statistics Computers and civilization Computers Law and legislation Data Structures and Information Theory Cryptology Database Management Probability and Statistics in Computer Science Computers and Society Legal Aspects of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Foundations of Tabular Protection -- Survey on Methods for Tabular Data Protection in ARGUS -- Data Swapping: Variations on a Theme by Dalenius and Reiss -- Bounds for Cell Entries in Two-Way Tables Given Conditional Relative Frequencies -- Methods for Tabular Protection -- A New Tool for Applying Controlled Rounding to a Statistical Table in

Microsoft Excel -- Getting the Best Results in Controlled Rounding with the Least Effort -- Computational Experiments with Minimum-Distance Controlled Perturbation Methods -- Balancing Quality and Confidentiality for Multivariate Tabular Data -- Reducing the Set of Tables ? -ARGUS Considers in a Hierarchical Setting -- Approaches to Identify the Amount of Publishable Information in Business Surveys through Waivers -- Maximum Utility-Minimum Information Loss Table Server Design for Statistical Disclosure Control of Tabular Data -- A Fast Network Flows Heuristic for Cell Suppression in Positive Tables -- Masking for Microdata Protection -- On the Security of Noise Addition for Privacy in Statistical Databases -- Microaggregation for Categorical Variables: A Median Based Approach -- Evaluating Fuzzy Clustering Algorithms for Microdata Protection -- To Blank or Not to Blank? A Comparison of the Effects of Disclosure Limitation Methods on Nonlinear Regression Estimates -- Outlier Protection in Continuous Microdata Masking -- Risk in Microdata Protection -- Re-identification Methods for Masked Microdata -- Masking and Re-identification Methods for Public-Use Microdata: Overview and Research Problems -- A Bayesian Hierarchical Model Approach to Risk Estimation in Statistical Disclosure Limitation -- Individual Risk Estimation in ?-Argus: A Review -- Analysis of Re-identification Risk Based on Log-Linear Models -- Synthetic Data -- New Approaches to Confidentiality Protection: Synthetic Data, Remote Access and Research Data Centers -- Multiply-Imputing Confidential Characteristics and File Links in Longitudinal Linked Data -- Fast Generation of Accurate Synthetic Microdata -- Software and Case Studies -- Trade-Off between Disclosure Risk and Information Loss Using Multivariate Microaggregation: A Case Study on Business Data -- The ARGUS Software in the CASC-Project -- Different Grades of Statistical Disclosure Control Correlated with German Statistics Law -- Developing Adoptable Disclosure Protection Techniques: Lessons Learned from a U.S. Experience -- Privacy Preserving and Data Mining in an On-Line Statistical Database of Additive Type.

Sommario/riassunto

Privacy in statistical databases is about ?nding tradeo?s 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 Databases2004” (PSD2004) was the ?nal conference of the CASC project (“Computational Aspects of Statistical Con?dentiality”, IST-2000-25069). PSD2004 is in the style of the following conferences: “Stat- tical Data Protection”, held in Lisbon in 1998 and with proceedings published by the O?ce of O?cial 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 di?erentcountriesonfourcontinents. Eachsubmittedpaperreceivedatleasttwo 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.

2. Record Nr. UNINA9910555092903321

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Titolo	PID control system design and automatic tuning using MATLAB/Simulink / / Liuping Wang
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface xv -- Acknowledgment xvii -- List of Symbols and Acronyms xix -- About the Companion Website xxi -- 1 Basics of PID Control 1 -- 1.1 Introduction 1 -- 1.2 PID Controller Structure 1 -- 1.2.1 Proportional Controller 1 -- 1.2.2 Proportional Plus Derivative Controller 3 -- 1.2.3 Proportional Plus Integral Controller 5 -- 1.2.4 PID Controllers 9 -- 1.2.5 The Commercial PID Controller Structure 12 -- 1.2.6 Food for Thought 13 -- 1.3 Classical Tuning Rules for PID Controllers 13 -- 1.3.1 ZiegleroNichols Oscillation Based Tuning Rules 13 -- 1.3.2 Tuning Rules based on the First Order Plus Delay Model 15 -- 1.3.3 Food for Thought 17 -- 1.4 Model Based PID Controller Tuning Rules 18 -- 1.4.1 IMC-PID Controller Tuning Rules 18 -- 1.4.2 Padula and Visioli Tuning Rules 19 -- 1.4.3 Wang and Cluett Tuning Rules 20 -- 1.4.4 Food for Thought 21 -- 1.5 Examples for Evaluations of the Tuning Rules 21 -- 1.5.1 Examples for Evaluating the Tuning Rules 21 -- 1.5.2 Fired Heater Control Example 25 -- 1.6 Summary 27 -- 1.7 Further Reading 28 -- Problems 28 -- 2 Closed-loop Performance and Stability 31 -- 2.1 Introduction 31 -- 2.2 RouthoHurwitz Stability Criterion 31 -- 2.2.1 Determining Closed-loop Poles 32 -- 2.2.2 RouthoHurwitz Stability Criterion 33 -- 2.2.3 Food for Thought 36 -- 2.3 Nyquist Stability Criterion 36 -- 2.3.1 Nyquist Diagram 36 -- 2.3.1.1 Gain Margin 38 -- 2.3.1.2 Phase Margin 38 --

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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. '