

1. Record Nr.	UNISA996394525103316
Titolo	Three ordinances of the Lords and Commons assembled in Parliament [[electronic resource]] : first for the regulating of the excise, upon all manner of salt, and flesh, viz beeves, muttuns, veales, porks, lambs, and other butchers meat kild for provision of victuals. The second, for the constant payment of 200 li. a weeke, towards the maintenance of maimed and vvounded souldiers, and relieving their wives and children, and widdowes whose husbands are slaine in the service of the Parliament and other great affaires of the Common-wealth. The third, being an explanation of the late ordinance of excise upon iron, tynne, hops, hats, Monmouth caps, allom and copperas, &c
Pubbl/distr/stampa	[London?], : August 5.Printed for John Wright in the Old Bayley, 1644
Descrizione fisica	[2], 6 p
Soggetti	Salt - Taxation - England Meat - Taxation - England Mines and mineral resources - Taxation - England Military pensions - England Excise tax - England
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Reproduction of original in the British Library.
Sommario/riassunto	eebo-0018

2. Record Nr.	UNINA9911020015003321
Autore	Forrester Alexander I. J.
Titolo	Engineering design via surrogate modelling : a practical guide / / Alexander I.J. Forrester, Andras Sobester and Andy J. Keane
Pubbl/distr/stampa	Chichester, West Sussex, United Kingdom : , : Wiley, , 2008
ISBN	9786611841010 9780470770801 0470770805 9781281841018 1281841013 9781615834778 161583477X 9780470770795 0470770791
Descrizione fisica	1 online resource (xviii, 210 pages) : illustrations (some colour)
Disciplina	620/.0042015118
Soggetti	Engineering design - Mathematical models Engineering design - Statistical methods Enginyeria - Disseny - Models matemàtics Enginyeria - Disseny - Mètodes estadístics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Engineering Design via Surrogate Modelling; Contents; Preface; About the Authors; Foreword; Prologue; Part I Fundamentals; 1 Sampling Plans; 1.1 The 'Curse of Dimensionality' and How to Avoid It; 1.2 Physical versus Computational Experiments; 1.3 Designing Preliminary Experiments (Screening); 1.3.1 Estimating the Distribution of Elementary Effects; 1.4 Designing a Sampling Plan; 1.4.1 Stratification; 1.4.2 Latin Squares and Random Latin Hypercubes; 1.4.3 Space-filling Latin Hypercubes; 1.4.4 Space-filling Subsets; 1.5 A Note on Harmonic Responses; 1.6 Some Pointers for Further Reading References2 Constructing a Surrogate; 2.1 The Modelling Process; 2.1.1 Stage One: Preparing the Data and Choosing a Modelling Approach;

2.1.2 Stage Two: Parameter Estimation and Training; 2.1.3 Stage Three: Model Testing; 2.2 Polynomial Models; 2.2.1 Example One: Aerofoil Drag; 2.2.2 Example Two: a Multimodal Testcase; 2.2.3 What About the k-variable Case?; 2.3 Radial Basis Function Models; 2.3.1 Fitting Noise-Free Data; 2.3.2 Radial Basis Function Models of Noisy Data; 2.4 Kriging; 2.4.1 Building the Kriging Model; 2.4.2 Kriging Prediction; 2.5 Support Vector Regression
 2.5.1 The Support Vector Predictor; 2.5.2 The Kernel Trick; 2.5.3 Finding the Support Vectors; 2.5.4 Finding ; 2.5.5 Choosing C and ; 2.5.6 Computing : -SVR; 2.6 The Big(ger) Picture; References; 3 Exploring and Exploiting a Surrogate; 3.1 Searching the Surrogate; 3.2 Infill Criteria; 3.2.1 Prediction Based Exploitation; 3.2.2 Error Based Exploration; 3.2.3 Balanced Exploitation and Exploration; 3.2.4 Conditional Likelihood Approaches; 3.2.5 Other Methods; 3.3 Managing a Surrogate Based Optimization Process; 3.3.1 Which Surrogate for What Use?
 3.3.2 How Many Sample Plan and Infill Points?; 3.3.3 Convergence Criteria; 3.4 Search of the Vibration Isolator Geometry Feasibility Using Kriging Goal Seeking; References; Part II Advanced Concepts; 4 Visualization; 4.1 Matrices of Contour Plots; 4.2 Nested Dimensions; Reference; 5 Constraints; 5.1 Satisfaction of Constraints by Construction; 5.2 Penalty Functions; 5.3 Example Constrained Problem; 5.3.1 Using a Kriging Model of the Constraint Function; 5.3.2 Using a Kriging Model of the Objective Function; 5.4 Expected Improvement Based Approaches
 5.4.1 Expected Improvement With Simple Penalty Function; 5.4.2 Constrained Expected Improvement; 5.5 Missing Data; 5.5.1 Imputing Data for Infeasible Designs; 5.6 Design of a Helical Compression Spring Using Constrained Expected Improvement; 5.7 Summary; References; 6 Infill Criteria with Noisy Data; 6.1 Regressing Kriging; 6.2 Searching the Regression Model; 6.2.1 Re-Interpolation; 6.2.2 Re-Interpolation With Conditional Likelihood Approaches; 6.3 A Note on Matrix Ill-Conditioning; 6.4 Summary; References; 7 Exploiting Gradient Information; 7.1 Obtaining Gradients; 7.1.1 Finite Differencing
 7.1.2 Complex Step Approximation

Sommario/riassunto

Surrogate models expedite the search for promising designs by standing in for expensive design evaluations or simulations. They provide a global model of some metric of a design (such as weight, aerodynamic drag, cost, etc.), which can then be optimized efficiently. Engineering Design via Surrogate Modelling is a self-contained guide to surrogate models and their use in engineering design. The fundamentals of building, selecting, validating, searching and refining a surrogate are presented in a manner accessible to novices in the field. Figures are used liberally to explain the key
