

1. Record Nr.	UNISA996392274003316
Autore	Morgan Shinkin ap
Titolo	The VVelsh physitian [[electronic resource]] : her new way to cure all kind of disease in her churches and common-wealths. 1. Her undertakes to cure perfectly all diseases in her she-cousens. 2. Her will undertake to make all omens that are barrons be as pig as her can tumble in two or three nights. 3. Her professes to restore her cosens maiden-heads, and virginities in a small space, and with much facilities. ...
Pubbl/distr/stampa	[London, : s.n.], Printed for the good of her countrey-men, this present year, 1647
Descrizione fisica	[2], 6 p
Soggetti	Welsh Wales Foreign public opinion Early works to 1800
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Shinkin ap Morgan is a pseudonym. Place of publication from Wing. Annotation on Thomason copy: "feb: 11th 1646"; the 7 in imprint date crossed out. Reproduction of the original in the British Library.
Sommario/riassunto	eebo-0018

2. Record Nr.	UNINA9910822731503321
Autore	Liu G. R
Titolo	The finite element method : a practical course // G.R. Liu, School of Aerospace Systems, University of Cincinnati, USA, S.S. Quek, Institute of High Performance Computing, Singapore
Pubbl/distr/stampa	Oxford : , : Butterworth-Heinemann, , 2014
ISBN	0-08-099441-5
Edizione	[Second edition.]
Descrizione fisica	1 online resource (xxi, 433 pages) : illustrations (some color)
Collana	Gale eBooks
Disciplina	457
Soggetti	Finite element method
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Half Title; Title Page; Copyright; Dedication; Biography; Contents; Preface to the First Edition; 1 Computational Modeling; 1.1 Introduction; 1.2 Physical problems in engineering; 1.3 Computational modeling using FEM; 1.3.1 Modeling of the geometry; 1.3.2 Meshing; 1.3.3 Material or medium properties; 1.3.4 Boundary, initial, and loading conditions; 1.4 Solution procedure; 1.4.1 Discrete system equations; 1.4.2 Equation solvers; 1.5 Results visualization; 2 Briefing on Mechanics for Solids and Structures; 2.1 Introduction; 2.2 Equations for three-dimensional solids; 2.2.1 Stress and strain 2.2.2 Constitutive equations2.2.3 Dynamic equilibrium equations; 2.2.4 Boundary conditions; 2.3 Equations for two-dimensional solids; 2.3.1 Stress and strain; 2.3.2 Constitutive equations; 2.3.3 Dynamic equilibrium equations; 2.4 Equations for truss members; 2.4.1 Stress and strain; 2.4.2 Constitutive equations; 2.4.3 Dynamic equilibrium equations; Solution; 2.5 Equations for beams; 2.5.1 Stress and strain; 2.5.2 Constitutive equations; 2.5.3 Moments and shear forces; 2.5.4 Dynamic equilibrium equations; 2.6 Equations for plates; 2.6.1 Stress and strain; 2.6.2 Constitutive equations 2.6.3 Moments and shear forces2.6.4 Dynamic equilibrium equations; 2.6.5 Reissner-Mindlin plate; 2.7 Remarks; 2.8 Review questions; 3 Fundamentals for Finite Element Method; 3.1 Introduction; 3.2 Strong and weak forms: problem formulation; 3.3 Hamilton's principle: A weak formulation; 3.3.1 Hamilton's principle; 3.3.2 Minimum total potential

energy principle; 3.4 FEM procedure; 3.4.1 Domain discretization; 3.4.2 Displacement interpolation; 3.4.3 Standard procedure for constructing shape functions; 3.4.3.1 On the inverse of the moment matrix; 3.4.3.2 On the compatibility of the shape functions; 3.4.3.3 On other means of construct shape functions; 3.4.4 Properties of the shape functions; 3.4.5 Formulation of finite element equations in local coordinate system; 3.4.6 Coordinate transformation; 3.4.7 Assembly of global FE equation; 3.4.8 Imposition of displacement constraints; 3.4.9 Solving the global FE equation; 3.5 Static analysis; 3.6 Analysis of free vibration (eigenvalue analysis); 3.7 Transient response; 3.7.1 Central difference algorithm; 3.7.2 Newmark's method (Newmark, 1959); 3.8 Remarks; 3.8.1 Summary of shape function properties; 3.8.2 Sufficient requirements for FEM shape functions; 3.8.3 Recap of FEM procedure; 3.9 Review questions; 4 FEM for Trusses; 4.1 Introduction; 4.2 FEM equations; 4.2.1 Shape function construction; 4.2.2 Strain matrix; 4.2.3 Element matrices in the local coordinate system; 4.2.4 Element matrices in the global coordinate system; 4.2.4.1 Spatial trusses; 4.2.4.2 Planar trusses; 4.2.5 Boundary conditions; 4.2.6 Recovering stress and strain; 4.3 Worked examples; Exact solution; FEM solution; 4.3.1 Properties of the FEM; 4.3.1.1 Reproduction property of the FEM; 4.3.1.2 Convergence property of the FEM

Sommario/riassunto

Written for practicing engineers and students alike, this book emphasizes the role of finite element modeling and simulation in the engineering design process. It provides the necessary theories and techniques of the FEM in a concise and easy-to-understand format and applies the techniques to civil, mechanical, and aerospace problems. Updated throughout for current developments in FEM and FEM software, the book also includes case studies, diagrams, illustrations, and tables to help demonstrate the material. Plentiful diagrams, illustrations and tables demonstrate the mat