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Nanobiotechnology in Diagnosis, Drug Delivery and Treatment - Mahendra Rai 2020-11-17 Presents nanobiotechnology in drug delivery and disease management Featuring contributions from noted experts in the field, this book highlights recent advances in the nano-based drug delivery systems. It also covers the diagnosis and role of various nanomaterials in the management of infectious diseases and non-infectious disorders, such as cancers and other malignancies and their role in future medicine. Nanobiotechnology in Diagnosis, Drug Delivery and Treatment starts by introducing how nanotechnology has revolutionized drug delivery, diagnosis, and treatments of diseases. It then focuses on the role of various nanocomposites in diagnosis, drug delivery, and treatment of diseases like cancer, Alzheimer's disease, diabetes, and many others. Next, it discusses the application of a variety of nanomaterials in the diagnosis and management of gastrointestinal tract disorders. The book explains the concept of nanotheranostics in detail and its role in effective monitoring of drug response, targeted drug delivery, enhanced drug accumulation in the target tissues, sustained as well as triggered release of drugs, and reduction in adverse effects. Other chapters cover aptamer-incorporated nanoparticle systems; magnetic nanoparticles; theranostics and vaccines; toxicological concerns of nanomaterials used in nanomedicine; and more. Provides a concise overview of state-of-the-art nanomaterials and their application like drug delivery in infectious diseases and non-infectious disorders Highlights recent advances in the nano-based drug delivery systems and role of various nanomaterials Introduces nano-based sensors which detect various pathogens Covers the use of nanodevices in diagnostics and theranostics Nanobiotechnology in Diagnosis, Drug Delivery and Treatment is an ideal book for researchers and scientists working in various disciplines such as microbiology, biotechnology, nanotechnology, pharmaceutical biotechnology, pharmacology, pharmaceutics, and nanomedicine.

Mechanical Vibrations: Theory and Applications - Kelly 2012-07-27
Mechanical Vibrations: Theory and Applications takes an applications-based approach at teaching students to apply previously learned engineering principles while laying a foundation for engineering design. This text provides a brief review of the principles of dynamics so that terminology and notation are consistent and applies these principles to derive mathematical models of dynamic mechanical systems. The methods of application of these principles are consistent with popular Dynamics texts. Numerous pedagogical features have been included in the text in order to aid the student with comprehension and retention. These include the development of three benchmark problems which are revisited in each chapter, creating a coherent chain linking all chapters in the book. Also included are learning outcomes, summaries of key concepts including important equations and formulae, fully solved examples with an emphasis on real world examples, as well as an extensive exercise set including objective-type questions. Important Notice: Media content referenced within the product description or the product text may not be

available in the ebook version.

Mechanical Vibration - William John Palm 2007 Model, analyze, and solve vibration problems, using modern computer tools. Featuring clear explanations, worked examples, applications, and modern computer tools, William Palm's Mechanical Vibration provides a firm foundation in vibratory systems. You'll learn how to apply knowledge of mathematics and science to model and analyze systems ranging from a single degree of freedom to complex systems with two and more degrees of freedom. Separate MATLAB sections at the end of most chapters show how to use the most recent features of this standard engineering tool, in the context of solving vibration problems. The text introduces Simulink where solutions may be difficult to program in MATLAB, such as modeling Coulomb friction effects and simulating systems that contain non-linearities. Ample problems throughout the text provide opportunities to practice identifying, formulating, and solving vibration problems. KEY FEATURES Strong pedagogical approach, including chapter objectives and summaries Extensive worked examples illustrating applications Numerous realistic homework problems Up-to-date MATLAB coverage The first vibration textbook to cover Simulink Self-contained introduction to MATLAB in Appendix A Special section dealing with active vibration control in sports equipment Special sections devoted to obtaining parameter values from experimental data

PRACTICAL CASE STUDIES ON VIBRATION ANALYSIS - Debasis Bhattacharyya 2021-06-01 Vibration analysis is one of the most popular contemporary technologies pertaining to fault diagnosis and predictive maintenance for machineries. Beginning with a segment on the basics of vibration analysis, this book further presents 30 authentic case studies involving problems encountered in real life. This book will serve as a useful guide for the beginners in the field and it will also be an asset to practicing engineers and consultants in developing new insights from the wide range of case studies presented in the book.

Mechanical Vibrations - Michel Geradin 2015-02-16 Mechanical Vibrations: Theory and Application to Structural Dynamics, Third Edition is a comprehensively updated new edition of the popular textbook. It presents the theory of vibrations in the context of structural analysis and covers applications in mechanical and aerospace engineering. Key features include: A systematic approach to dynamic reduction and substructuring, based on duality between mechanical and admittance concepts An introduction to experimental modal analysis and identification methods An improved, more physical presentation of wave propagation phenomena A comprehensive presentation of current practice for solving large eigenproblems, focusing on the efficient linear solution of large, sparse and possibly singular systems A deeply revised description of time integration schemes, providing framework for the rigorous accuracy/stability analysis of now widely used algorithms such as HHT and Generalized-α Solved exercises and end of chapter homework problems A companion website hosting supplementary material

History of Rotating Machinery Dynamics - J.S. Rao 2011-03-07

This book starts with the invention of the wheel nearly 5000 years ago, and via Archimedes, Aristotle and Hero describes the first practical applications such as water wheels and grinding wheels, pushing on to more rigorous scientific research by inquiring minds such as Leonardo da Vinci and Copernicus in later ages. Newton and Leibniz followed, and beam structures received maximum attention three centuries ago. As focus shifts and related disciplines such as mathematics and physics also develop, slowly turbomachines and rotor and blade dynamics as we know the subject now take shape. While the book traces the events leading to Laval and Parsons Turbines, the emphasis is on rotor and blade dynamics aspects that pushed these turbines to their limits in the last century. The tabular and graphical methods developed in the pre-computer era have taken different form in the last fifty years through finite element methods. The methods evolved in the last century are discussed in detail to help modern day designers and researchers. This book will be useful to young researchers and engineers in industry and educational institutions engaged in rotor and blade dynamics work in understanding the past and the present developments and what

is expected in future. Faculty and industry engineers can benefit from this broad perspective history in formulating their developmental plans.

System Dynamics and Response - S. Graham Kelly 2008-09-01

As engineering systems become more increasingly interdisciplinary, knowledge of both mechanical and electrical systems has become an asset within the field of engineering. All engineers should have general facility with modeling of dynamic systems and determining their response and it is the objective of this book to provide a framework for that understanding. The study material is presented in four distinct parts; the mathematical modeling of dynamic systems, the mathematical solution of the differential equations and integro differential equations obtained during the modeling process, the response of dynamic systems, and an introduction to feedback control systems and their analysis. An Appendix is provided with a short introduction to MATLAB as it is frequently used within the text as a computational tool, a programming tool, and a graphical tool. SIMULINK, a MATLAB based simulation and modeling tool, is discussed in chapters where the development of models use either the transfer function approach or the state-space method.

Composite Materials - Deborah D.L. Chung 2013-06-29

Composite Materials is a modern reference book, tutorial in style, covering functions of composites relating to applications in electronic packaging, thermal management, smart structures and other timely technologies rarely covered in existing books on composites. It also treats materials with polymer, metal, cement, carbon and ceramics matrices, contrasting with others that emphasise polymer-matrix composites. This functional approach will be useful to both practitioners and students. A good selection of example problems, solutions and figures, together with a new and vibrant approach, provides a valuable reference source for all engineers working with composite materials.

Complementary & Alternative Therapies in Nursing - Ruth Lindquist 2013-11-05 Print+CourseSmart

Mechanical Vibrations - J. P. Den Hartog 2013-02-28

This classic text combines the scholarly insights of its distinguished author with the practical, problem-solving orientation of an experienced industrial engineer. Abundant examples and figures, plus 233 problems and answers. 1956 edition.

Isogeometric Analysis and Applications 2014 - Bert Jüttler 2015-12-21

Isogeometric Analysis is a groundbreaking computational approach that promises the possibility of integrating the finite element method into conventional spline-based CAD design tools. It thus bridges the gap between numerical analysis and geometry, and moreover it allows to tackle new cutting edge applications at the frontiers of research in science and engineering. This proceedings volume contains a selection of outstanding research papers presented at the second International Workshop on Isogeometric Analysis and Applications, held at Annweiler, Germany, in April 2014.

Fundamentals of Vibrations - Leonard Meirovitch 2010-06-17

Fundamentals of Vibrations provides a comprehensive coverage of mechanical vibrations theory and applications. Suitable as a textbook for courses ranging from introductory to graduate level, it can also serve as a reference for practicing engineers. Written by a leading authority in the field, this volume features a clear and precise presentation of the material and is supported by an abundance of physical explanations, many worked-out examples, and numerous homework problems. The modern approach to vibrations emphasizes analytical and computational solutions that are enhanced by the use of MATLAB. The text covers single-degree-of-freedom systems, two-degree-of-freedom systems, elements of analytical dynamics, multi-degree-of-freedom systems, exact methods for distributed-parameter systems, approximate methods for distributed-parameter systems, including the finite element method, nonlinear oscillations, and random vibrations. Three appendices provide pertinent material from Fourier series, Laplace transformation, and linear algebra.

Fundamentals of Mechanical Vibrations - S. Graham Kelly 1993-01-01

This is the solutions manual to Fundamentals of Mechanical Vibrations which is designed for undergraduate students on mechanical engineering courses.

Fluid Mechanics & Hydraulic Machines - R. K. Rajput 2008
The entire book has been throughly revised by adding adequate text and a large number of typical examples selected from various universities and competitive examinations question papers.Besides this, Laboratory Experiments have also been added at the end of the book to make it still more a comprehensive and complete unit in all respects.

MECHANICAL VIBRATIONS AND NOISE ENGINEERING - A. G. AMBEKAR 2006-01-01
This book, which is a result of the author's many years of teaching, exposes the readers to the fundamentals of mechanical vibrations and noise engineering. It provides them with the tools essential to tackle the problem of vibrations produced in machines and structures due to unbalanced forces and the noise produced thereof. The text lays emphasis on mechanical engineering applications of the subject and develops conceptual understanding with the help of many worked-out examples. What distinguishes the text is that three chapters are devoted to Sound Level and Subjective Response to Sound, Noise: Effects, Ratings and Regulations and Noise: Sources, Isolation and Control. Importance of mathematical formulation in converting a distributed parameter vibration problem into an equivalent lumped parameter problem is also emphasized. Primarily designed as a text for undergraduate and postgraduate students of mechanical engineering, this book would also be useful for undergraduate and postgraduate students of civil, aeronautical and automobile engineering as well as practising engineers.

Soft Computing for Problem Solving - Kedar Nath Das 2019-11-27
This two-volume book presents the outcomes of the 8th International Conference on Soft Computing for Problem Solving, SocProS 2018. This conference was a joint technical collaboration between the Soft Computing Research Society, Liverpool Hope University (UK), and Vellore Institute of Technology (India), and brought together researchers, engineers and practitioners to discuss thought-provoking developments and challenges in order to select potential future directions. The book highlights the latest advances and innovations in the interdisciplinary areas of soft computing, including original research papers on algorithms (artificial immune systems, artificial neural networks, genetic algorithms, genetic programming, and particle swarm optimization) and applications (control systems, data mining and clustering, finance, weather forecasting, game theory, business and forecasting applications). It offers a valuable resource for both young and experienced researchers dealing with complex and intricate real-world problems that are difficult to solve using traditional methods.

Microwave Systems and Applications - Sotirios Goudos 2017-01-11
Microwave systems are key components of every modern wireless communication system. The main objective of this book was to collect as many different state-of-the-art studies as possible in order to cover in a single volume the main aspects of microwave systems and applications. This book contains 17 chapters written by acknowledged experts, researchers, academics, and microwave engineers, providing comprehensive information and covering a wide range of topics on all aspects of microwave systems and applications. This book is divided into four parts. The first part is devoted to microwave components. The second part deals with microwave ICs and innovative techniques for on-chip antenna design. The third part presents antenna design cases for microwave systems. Finally, the last part covers different applications of microwave systems.

Structural Analysis-I, 4th Edition - Bhavikatti S.S.
Structural Analysis, or the 'Theory of Structures', is an important subject for civil engineering students who are required to analyze and design structures. It is a vast field and is largely taught at the undergraduate level. A few topics like Matrix Method and Plastic Analysis are also taught at the postgraduate level and in structural engineering electives. The entire course has been covered in two volumes – Structural Analysis I and II. Structural Analysis I deals with the basics of structural analysis,

measurements of deflection, various types of deflection, loads and influence lines, etc.

Practical Finite Element Analysis - Nitin S. Gokhale 2008
Highlights of the book: Discussion about all the fields of Computer Aided Engineering, Finite Element Analysis Sharing of worldwide experience by more than 10 working professionals Emphasis on Practical usuage and minimum mathematics Simple language, more than 1000 colour images International quality printing on specially imported paper Why this book has been written ... FEA is gaining popularity day by day & is a sought after dream career for mechanical engineers. Enthusiastic engineers and managers who want to refresh or update the knowledge on FEA are encountered with volume of published books. Often professionals realize that they are not in touch with theoretical concepts as being pre-requisite and find it too mathematical and Hi-Fi. Many a times these books just end up being decoration in their book shelves ... All the authors of this book are from IITÂ€Â™s & IISc and after joining the industry realized gap between university education and the practical FEA. Over the years they learned it via interaction with experts from international community, sharing experience with each other and hard route of trial & error method. The basic aim of this book is to share the knowledge & practices used in the industry with experienced and in particular beginners so as to reduce the learning curve & avoid reinvention of the cycle. Emphasis is on simple language, practical usage, minimum mathematics & no pre-requisites. All basic concepts of engineering are included as & where it is required. It is hoped that this book would be helpful to beginners, experienced users, managers, group leaders and as additional reading material for university courses.

Mechanical Vibration - Haym Benaroya 2017-08-29
Mechanical Vibration: Analysis, Uncertainties, and Control, Fourth Edition addresses the principles and application of vibration theory. Equations for modeling vibrating systems are explained, and MATLAB® is referenced as an analysis tool. The Fourth Edition adds more coverage of damping, new case studies, and development of the control aspects in vibration

analysis. A MATLAB appendix has also been added to help students with computational analysis. This work includes example problems and explanatory figures, biographies of renowned contributors, and access to a website providing supplementary resources.

Structural Analysis Vol II - R. Vaidyanathan 2004

Structural Dynamics - Mario Paz 2012-12-06
The use of COSMOS for the analysis and solution of structural dynamics problems is introduced in this new edition. The COSMOS program was selected from among the various professional programs available because it has the capability of solving complex problems in structures, as well as in other engin eering fields such as Heat Transfer, Fluid Flow, and Electromagnetic Phenom ena. COSMOS includes routines for Structural Analysis, Static, or Dynamics with linear or nonlinear behavior (material nonlinearity or large displacements), and can be used most efficiently in the microcomputer. The larger version of COSMOS has the capacity for the analysis of structures modeled up to 64,000 nodes. This fourth edition uses an introductory version that has a capability limited to 50 nodes or 50 elements. This version is included in the supplement, STRUCTURAL DYNAMICS USING COSMOS 1. The sets of educational programs in Structural Dynamics and Earthquake Engineering that accompanied the third edition have now been extended and updated. These sets include programs to determine the response in the time or frequency domain using the FFf (Fast Fourier Transform) of structures modeled as a single oscillator. Also included is a program to determine the response of an inelastic system with elastoplastic behavior and a program for the development of seismic response spectral charts. A set of seven computer programs is included for modeling structures as two-dimensional and three dimensional frames and trusses.

Theory of Machines and Mechanisms - Joseph Edward Shigley 1995
The second edition of Shigley-Uicker maintains the tradition of being very complete, thorough, and somewhat theoretical. The principal changes include an expansion and updating of the dynamics material, expansion of the chapter on

gears, an expansion of the material on mechanisms, a new introductory chapter. Intended for the Kinematics and Dynamics course in Mechanical Engineering departments.
Mechanical System Design - Simant 2009

A Textbook of Machine Drawing - R.K.Dhawan 1998-12
This book is for B.Sc Engg., B.E., Dip. In Mech. Engg., Production Engg., Automobile Engg., Textile Engg., etc., I.T.I.(Draftsman Course in Mech. Engg.), A.T.I., 10+2 System, and other Engineering Examinations. According to Bureau of Indian Standards (B.I.S.) SP: 46-1988 & IS:696-1972
Vibration of Mechanical Systems - Alok Sinha 2010-10-18
This is a textbook for a first course in mechanical vibrations. There are many books in this area that try to include everything, thus they have become exhaustive compendiums, overwhelming for the undergraduate. In this book, all the basic concepts in mechanical vibrations are clearly identified and presented in a concise and simple manner with illustrative and practical examples. Vibration concepts include a review of selected topics in mechanics; a description of single-degree-of-freedom (SDOF) systems in terms of equivalent mass, equivalent stiffness, and equivalent damping; a unified treatment of various forced response problems (base excitation and rotating balance); an introduction to systems thinking, highlighting the fact that SDOF analysis is a building block for multi-degree-of-freedom (MDOF) and continuous system analyses via modal analysis; and a simple introduction to finite element analysis to connect continuous system and MDOF analyses. There are more than sixty exercise problems, and a complete solutions manual. The use of MATLAB® software is emphasized.
Engineering Vibrations - William J. Bottega 2014-12-11
A thorough study of the oscillatory and transient motion of mechanical and structural systems, Engineering Vibrations, Second Edition presents vibrations from a unified point of view, and builds on the first edition with additional chapters and sections that contain more advanced, graduate-level topics. Using

numerous examples and case studies to r
Handbook of Composites - S.T. Peters 2013-11-27
Today, fiber reinforced composites are in use • • properties of different component (fiber, in a variety of structures, ranging from space matrix, filler) materials; craft and aircraft to buildings and bridges. • manufacturing techniques; This wide use of composites has been facili • analysis and design; tated by the introduction of new materials, • testing; improvements in manufacturing processes • mechanically fastened and bonded joints; and developments of new analytical and test • repair; ing methods. Unfortunately, information on • damage tolerance; these topics is scattered in journal articles, in • environmental effects; conference and symposium proceedings, in and disposal; • health, safety, reuse, workshop notes, and in government and com • applications in: pany reports. This proliferation of the source - aircraft and spacecraft; material, coupled with the fact that some of - land transportation; the relevant publications are hard to find or - marine environments; are restricted, makes it difficult to identify and - biotechnology; obtain the up-to-date knowledge needed to - construction and infrastructure; utilize composites to their full advantage. - sporting goods. This book intends to overcome these diffi Each chapter, written by a recognized expert, culties by presenting, in a single volume, is self-contained, and contains many of the many of the recent advances in the field of 'state-of-the-art' techniques reqUired for prac composite materials. The main focus of this tical applications of composites.
A Shot At History - Rohit Brijnath 2011-10-11
Abhinav Bindra once shot 100 out of 100 in practice six times in a row and walked out of the range unhappy. He is a perfectionist who once soled his shoes with rubber from Ferrari tyres because he thought it would help. He would wake up at 3 am to practise at his range at home if an idea suddenly struck him. It is from such obsession that greatness arrives. Abhinav Bindra's journey to become the first Indian to win an individual Olympic gold, and the first Indian to win a World Championship gold, is a story of single-minded passion. The Olympics has been an all-consuming journey for him ever since he was shattering beer bottles and glass

ampoules in his garden in Chandigarh. No obstacle was too hard to overcome, no amount of practice too much, no experiment too futile and no defeat so severe that it made a comeback impossible. Shattered by his failure at the 2004 Athens Olympics when a gold medal seemed imminent, he changed as a shooter: from a boy who loved shooting, he became an athlete bent on redemption, a scientist who would try anything - from mapping his own brain to drinking yak milk to climbing rock walls - to win at the Beijing Olympics in 2008. His victory was not just a personal triumph, it was a gift to his nation, a breaking down of a sporting barrier that had stood for a century. Bindra's feat has taught his peers, and those yet to come, that an Olympic gold isn't an impossible dream. In ranges, on fields, in arenas, Indian athletes now own a new belief, they wear the knowledge that no challenge is beyond them. Helping to tell this remarkable story is sportswriter Rohit Brijnath, who collaborated with Bindra in producing this compelling autobigraphy of one of India's greatest sportsmen.

Human Resource Management - S S Khanka 2007-01-01
This book has been written for the students of M.B.A., M.Com., and other Diploma Courses in Management. It would also be useful to the practitioners in the field of Human Resource Management. The book covers the whole syllabus of HRM prescribed by the UGC Course Development Committee on Management. The book makes a presumptions attempt to knead all aspects of HRM logically dividing them into seven sections to enable the readers comprehend the key and vital issues of HRM in a dynamic environment.

Silver Micro-Nanoparticles - Samir Kumar 2021-09-15
This book describes the different methodologies for producing and synthesizing silver nanoparticles (AgNPs) of various shapes and sizes. It also provides an in-depth understanding of the new methods for characterizing and modifying the properties of AgNPs as well as their properties and applications in various fields. This book is a useful resource for a wide range of readers, including scientists, engineers, doctoral and postdoctoral fellows, and scientific professionals working in specialized fields such as medicine, nanotechnology, spectroscopy, analytical chemistry diagnostics, and plasmonics.

Mechanical Vibrations - Singiresu S. Rao 2016-01-01
Mechanical Vibrations, 6/e is ideal for undergraduate courses in Vibration Engineering. Retaining the style of its previous editions, this text presents the theory, computational aspects, and applications of vibrations in as simple a manner as possible. With an emphasis on computer techniques of analysis, it gives expanded explanations of the fundamentals, focusing on physical significance and interpretation that build upon students' previous experience. Each self-contained topic fully explains all concepts and presents the derivations with complete details. Numerous examples and problems illustrate principles and concepts.

MECHANISM AND MACHINE THEORY - AMBEKAR A. G. 2007-07-19
This book meets the requirements of undergraduate and postgraduate students pursuing courses in mechanical, production, electrical, metallurgical and aeronautical engineering. This self-contained text strikes a fine balance between conceptual clarity and practice problems, and focuses both on conventional graphical methods and emerging analytical approach in the treatment of subject matter. In keeping with technological advancement, the text gives detailed discussion on relatively recent areas of research such as function generation, path generation and mechanism synthesis using coupler curve, and number synthesis of kinematic chains. The text is fortified with fairly large number of solved examples and practice problems to further enhance the understanding of the otherwise complex concepts. Besides engineering students, those preparing for competitive examinations such as GATE and Indian Engineering Services (IES) will also find this book ideal for reference. KEY FEATURES ⬜ Exhaustive treatment given to topics including gear drive and cam follower combination, analytical method of motion and conversion phenomenon. ⬜ Simplified explanation of complex subject matter. ⬜ Examples and exercises for clearer understanding of the concepts.

Mechanics of Machines - V. Ramamurti 2005 "Emphasizes the industrial relevance of the subject matter, dispenses with conventional inaccurate graphical methods used in Kinematics of plane mechanisms, cams and balancing. Instead presents general vector approach for both plane and space mechanisms."--BOOK JACKET.

Materials - Witold Brostow 2016-09-06 Presents a fully interdisciplinary approach with a stronger emphasis on polymers and composites than traditional materials books Materials science and engineering is an interdisciplinary field involving the properties of matter and its applications to various areas of science and engineering. Polymer materials are often mixed with inorganic materials to enhance their mechanical, electrical, thermal, and physical properties. Materials: Introduction and Applications addresses a gap in the existing textbooks on materials science. This book focuses on three Units. The first, Foundations, includes basic materials topics from Intermolecular Forces and Thermodynamics and Phase Diagrams to Crystalline and Non-Crystalline Structures. The second Units, Materials, goes into the details of many materials including Metals, Ceramics, Organic Raw Materials, Polymers, Composites, Biomaterials, and Liquid Crystals and Smart Materials. The third and final unit details Behavior and Properties including Rheological, Mechanical, Thermophysical, Color and Optical, Electrical and Dielectric, Magnetic, Surface Behavior and Tribology, Materials, Environment and Sustainability, and Testing of Materials. Materials: Introduction and Applications features: Basic and advanced Materials concepts Interdisciplinary information that is otherwise scattered consolidated into one work Links to everyday life application like electronics, airplanes, and dental materials Certain topics to be discussed in this textbook are more advanced. These will be presented in shaded gray boxes providing a two-level approach. Depending on whether you are a student of Mechanical Engineering, Electrical Engineering, Engineering Technology, MSE, Chemistry, Physics, etc., you can decide for yourself whether a topic presented on a more advanced level is not important for you—or else essential for you given your professional profile Witold Brostow is Regents Professor of Materials Science and Engineering at the University of North Texas. He is President of the International Council on Materials Education and President of the Scientific Committee of the POLYCHAR World Forum on Advanced Material (42 member countries). He has three honorary doctorates and is a Member of the European Academy of Sciences, Member of the National Academy of Sciences of Mexico, Foreign Member of the National Academy of Engineering of Georgia in Tbilisi and Fellow of the Royal Society of Chemistry in London. His publications have been cited more than 7200 times. Haley Hagg Lobland is the Associate Director of LAPOM at the University of North Texas. She is a Member of the POLYCHAR Scientific Committeee. She has received awards for her research presented at conferences in: Buzios, Rio de Janeiro, Brazil; NIST, Frederick, Maryland; Rouen, France; and Lviv, Ukraine. She has lectured in a number of countries including Poland and Spain. Her publications include joint ones with colleagues in Egypt, Georgia, Germany, India, Israel, Mexico, Poland, Turkey and United Kingdom.

Mechanical Vibrations - Tony L. Schmitz 2020-10-29 Now in an updated second edition, this classroom-tested textbook describes essential concepts in vibration analysis of mechanical systems.The second edition includes a new chapter on finite element modeling and an updated section on dynamic vibration absorbers, as well as new student exercises in each chapter. It incorporates the required mathematics, experimental techniques, fundamentals of modal analysis, and beam theory into a unified framework that is written to be accessible to undergraduate students, researchers, and practicing engineers. To unify the various concepts, a single experimental platform is used throughout the text to provide experimental data and evaluation. Engineering drawings for the platform are included in an appendix. Additionally, MATLAB programming solutions are integrated into the content throughout the text.The book is ideal for undergraduate students, researchers, and practicing engineers who are interested in developing a more thorough understanding of

essential concepts in vibration analysis of mechanical systems. Presents a clear connection between continuous beam models and finite degree of freedom models; Includes MATLAB code to support numerical examples that are integrated into the text narrative; Uses mathematics to support vibrations theory and emphasizes the practical significance of the results.

Ultrathin Carbon-Based Overcoats for Extremely High Density Magnetic Recording - Reuben Jueyuan Yeo 2017-06-20 This book presents the latest research in ultrathin carbon-based protective overcoats for high areal density magnetic data storage systems, with a particular focus on hard disk drives (HDDs) and tape drives. These findings shed new light on how the microstructure and interfacial chemistry of these sub-20 nm overcoats can be engineered at the nanoscale regime to obtain enhanced properties for wear, thermal and corrosion protection – which are critical for such applications. Readers will also be provided with fresh experimental insights into the suitability of graphene as an atomically-thin overcoat for HDD media. The easy readability of this book will appeal to a wide audience, ranging from non-specialists with a general interest in the field to scientists and industry professionals directly involved in thin film and coatings research.

Mechanical Vibration Practice with Basic Theory - Viswanatha Ramamurti 2000 "Use of 3D beam element to solve the industrial problems along with the source code, and more than 100 practical worked out examples make the book versatile. Written in a lucid language emphasising concepts, the book will be a priceless possession for students, teachers and professional engineers."--BOOK JACKET. Business Communication (For University of Delhi, B.Com Hons., Sem.6) - Pooja Khanna Effective communication is the key to success in life. We live in an era where words and gestures play an important role in effective communication. Businesses operate in various circumstances and it is paramount that the communication between different parties concerned is clear and effective and also takes into account the cultural sensitivities. This is where the concept of Business Communication comes to play. This book, written in accordance with the syllabus of the University of Delhi, is an attempt to equip the readers with skills required to communicate effectively in a business situation. It would also be useful for the students of BCom, BBA, and MBA of other universities, and for anyone looking to learn the nitty-gritties of business communication. KEY FEATURES • Analysis of vital components of business communication • Informative use of illustrations, examples, diagrams and pictures • Inclusion of review questions and university examination questions • New tools for business communication like, emails, teleconferencing, video conferencing, telex, fax discussed in detail Proceedings of International Conference on Intelligent Manufacturing and Automation - Hari Vasudevan 2020-06-30 This book gathers selected papers presented at the Second International Conference on Intelligent Manufacturing and Automation (ICIMA 2020), which was jointly organized by the Departments of Mechanical Engineering and Production Engineering at Dwarkadas J. Sanghvi College of Engineering (DJSCE), Mumbai, and by the Indian Society of Manufacturing Engineers (ISME). Covering a range of topics in intelligent manufacturing, automation, advanced materials and design, it focuses on the latest advances in e.g. CAD/CAM/CAE/CIM/FMS in manufacturing, artificial intelligence in manufacturing, IoT in manufacturing, product design & development, DFM/DFA/FMEA, MEMS & nanotechnology, rapid prototyping, computational techniques, nano- & micro-machining, sustainable manufacturing, industrial engineering, manufacturing process management, modelling & optimization techniques, CRM, MRP & ERP, green, lean & agile manufacturing, logistics & supply chain management, quality assurance & environmental protection, advanced material processing & characterization of composite & smart materials. The book is intended as a reference guide for future researchers, and as a valuable resource for students in graduate and doctoral programmes.