

機械工程相關電子資源介紹

Mechanical Engineering Electronic Resources

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一、前言

人類科技文明的發展過程中，機械工程一直扮演著重要的推手。由石器時代、鐵器時代到工業革命，乃至於如今高科技時代的資訊革命，舉凡電腦產品、航太科技與微細製造等等，皆與機械工程脫不了關係。機械工程 (Mechanical Engineering) 是一門涉及利用物理原理包括應用力學、熱力學、流體力學、物質與能量守恆等基礎科學從事分析靜態和動態物質系統，設計、創造、與生產特定的裝置、設備及其維修的工程學科。

本校的動力機械系，將「機」與「電」結合，應用在光、生醫、動力、能源、微奈米等科技領域。學科範圍涵蓋能源 (Energy)、機電整合 (Mechatronics)、訊號處理 (Signal Processing)、奈微米 (Micro and Nano Technology) 及精密機械 (Precision Design and Manufacturing)。

以下依「資料庫」、「全文電子期刊」、「電子書」三種型態之電子資源分別介紹。

二、資料庫

表一資料庫請至本館網頁 (<http://www.lib.nthu.edu.tw>) 點選「電子資料庫」查詢。

表一 機械工程相關資料庫

資料庫名稱	類型
ASTM Standards Collection -PLUS	全文
Ei Engineering Village	索摘
IEEE XPLORE	全文
INSPEC-Ei	索摘
Mechanical Engineering Abstracts-CSA	索摘
ProQuest Digital Dissertation Full Text	全文
ProQuest Digital Dissertations & Theses	索摘
SDOL	全文
SPIE Digital Library	全文
Web of Science-Science Citation Index Expanded	索摘
CEPS中文電子期刊服務	授權文章全文
工程學刊全文影像資料庫	全文
中文期刊篇目索引影像系統	索摘
中國期刊全文數據庫	全文
全國博碩士論文資訊網	索摘 授權論文全文

三、電子期刊

以下電子期刊請至本館網頁 (<http://www.lib.nthu.edu.tw>) 點選電子期刊/找尋, 依刊名、ISSN等方式查詢。

表二 機械工程相關電子期刊

刊名	起迄時間	紙本館藏
International Journal of Mechanical Sciences	01/01/1995-	有
Mechanical Engineering	07/1993-	有
Mechanical Systems and Signal Processing	03/01/1993-	無
Microelectromechanical Systems, Journal of	1992-	有
Journal of Optical Technology	1999-	無

註：紙本館藏需確認訂購起迄年代

四、電子書

以下是最新電子書清單, 可連線至本館館藏目錄, 查詢欄位點選「標題關鍵字」, 鍵入「mechanical engineering」, 選擇資料庫, 點選「電子書」, 可以獲得更多的機械工程方面的電子書。

表三 機械工程相關電子書

書名
Advancements in electric machines [electronic resource]
Axial Flux Permanent Magnet Brushless Machines [electronic resource]
Combustion and ignition modeling for IC engines. [electronic resources]
Control of Turbulent and Magnetohydrodynamic Channel Flows [electronic resource] : Boundary Stabi
Defect and Material Mechanics [electronic resource] : Proceedings of the International Symposium

EKC2008 proceedings of the EU-Korea conference on science and technology [electronic resource]
Elasto-Plastic and Damage Analysis of Plates and Shells [electronic resource]
Engineering Fluid Mechanics [electronic resource]
Formulas of acoustics [electronic resource]
Integral Methods in Science and Engineering [electronic resource] : Techniques and Applications
International Steam Tables [electronic resource] : Properties of Water and Steam Based on the Ind
Masonry constructions [electronic resource] : mechanical models and numerical applications Mechanical system dynamics [electronic resource]
Mechanochemistry in nanoscience and minerals engineering [electronic resource]
Nanotribology and Nanomechanics [electronic resource] : An Introduction
Numerical Methods for Nonsmooth Dynamical Systems [electronic resource] : Applications in Mechani
Precision Manufacturing [electronic resource]
Product engineering [electronic resource] : tools and methods based on virtual reality
Reliability in automotive and mechanical engineering [electronic resource] : determination of com
Russian models from the mechanisms collection of bauman university [electronic resource]
Safety, Reliability and Risks Associated with Water, Oil and Gas Pipelines [electronic resource]
Solid Particle Erosion [electronic resource] : Occurrence, Prediction and Control
Stability and Convergence of Mechanical Systems with Unilateral Constraints [electronic resource]
Tribology of Diamond-Like Carbon Films [electronic resource] : Fundamentals and Applications
The Structure of Physical Chemistry

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The Problems of Physics
Concepts in Spin Electronics
Electrons and Disorder in Solids
Chern-Simons Theory, Matrix Models, and Topological Strings
Quantum Transport in Mesoscopic Systems
Knowing
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Quantum Theory of Solids
Multipole Theory in Electromagnetism
Molecular Beams
Semiconductor Detector Systems
Theory of Defects in Solids
Modern Supersymmetry
Theory of Fluctuations in Superconductors
Electrons and Phonons

上述各類電子資源之詳細使用說明請見圖書館網頁／電子資料庫，若讀者於使用上有任何問題，歡迎洽詢讀者服務組參考諮詢櫃台，校內分機42995，或E-mail至ref@my.nthu.edu.tw。

