

# The University of Manchester Library Content Development Policy Electrical & Electronic Engineering

Monday, 30 April 2012

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## Introduction

This document presents the Content Development Policy for the School of Electrical and Electronic Engineering. It includes a description of the Library's existing collections and an outline of current collecting areas. Set within the context provided by an overall Content Development Policy and a related Collection Management Policy, its purpose is to ensure that the selection of resources - books, journals, and other kinds of material – whether print, electronic or other format, reflect the teaching and research priorities of the School and provide best value in both financial and academic terms.

## Collection evaluation

The Library has substantial collections in all fields of electrical and electronic engineering and includes books and journals, in print and digital formats. The principal collection of printed books, including all reading list items, is kept in the Joule Library.

- Electrical engineering is shelved on the Main level at 621.3
- Electronic engineering from 621.38 onwards
- Computing can be found in the 001-006 sequence on the upper level.

Appendix 1 provides an overview of the EEE book stock by class mark, date of publication, and location.

Appendix 2 lists the books purchased from the EEE book fund during the 2009-10 financial year, excluding items purchased as part of other subscriptions.

Appendix 3 lists current journal subscriptions in the area of EEE. Because of the difficulties in deciding on what constitutes an EEE journal, it is not necessarily a complete list. However all journal holdings and subscriptions are listed in the Library catalogue, and all subscriptions to electronic journals are listed in its E-Journals A-Z listing. (This is attached as a separate file)

Appendix 4 lists other relevant subscriptions to bibliographic databases and book collections in the area.

## Bookfund and resource allocations

Book funds are allocated in August each year for the following financial year (August – July). This book fund is to provide for all non-subscription library materials including printed textbooks and research monographs, electronic books, and any other one-off purchase requirements.

Journals and other subscription items are purchased from a separate fund which at present accounts for over 85% of the cost of all purchases.

## Collection areas

To support the School's scholarly and research activities the Library will acquire material published in the areas listed below.

### Research Groups

- Control Systems
  - Control
  - Modelling and System Identification
  - Intelligent System Monitoring
  - Real Time Implementation
  - Application areas
  - Legacy Research areas
  
- Electrical Energy and Power Systems
  - Power Systems
  - High Voltage/Power System Plant
  - Power System Protection & Communications
  
- Microelectronics and Nanostructures
  - Growth and Synthesis
  - Nano Electronic and Photonic Devices
  - eTHz (Electronic TeraHertz)
  - Advanced Spectroscopy and Imaging
  - Materials and Devices Modelling
  - Integrated Circuits & Systems
  - QCL-based Nanophotonics
  - Research Portfolio
  - Industrial Partners
  
- Microwave and Communication Systems
  - Wireless Communications
  - Antennas & Propagation
  - Microwave Subsystems
  - MMICS
  
- Power Conversion
  - Power Conversion, Control & Distribution for Aerospace Applications
  - Marine Electrical Systems
  - Energy Efficiency in Industrial Motors & Drives

- Electric and Hybrid-Electric Vehicle Systems
- Renewable Power Generation & Active Management of Distribution Systems
- Superconducting and Cryogenic Applications
  
- Sensing, Imaging and Signal Processing.
  - Industrial Process Tomography (IPT)
  - Vision and Information Processing
  - Digital Signal Processing (DSP)
  - The Syngenta University Innovation Centre

## Document Supply Service and Inter-Library Loans

Although the Library will try to accommodate all requests for purchase, books which lie outside the areas listed above or are out of print can be obtained on loan from another library through the [Document Supply Service](#). Such books are usually borrowable for up to 6 weeks at a time. Journal articles and other material not available from within the Library's collections can also be obtained through this service.

## Teaching and Learning

The Library will support all taught course modules.

Multiple copies and / or electronic copies of texts will be purchased or subscribed to as appropriate. Subject to copyright restrictions the Library will digitise materials, for instance book chapters, or journal articles not otherwise available electronically, if required for taught course modules.

Reading lists and estimated student numbers should be sent to the Faculty Team Librarian by July 31 and November 30 each year so any new material can be purchased and processed in time for the forthcoming semester.

The library's software package **Aspire** affords the opportunity of creating multi-media **resource lists**. Hyperlinks to audio files, video clips, podcasts and the like can all be included in a resource list alongside traditional bibliographic references to print material, e-books and journal articles, which can link directly through to entries in the Library catalogue. Library staff can provide training and support to academic staff interested in using Link2Lists software (rather than a traditional word processing package), and embedding resource lists into Blackboard modules.

Reading list texts can be 7-day loan, 28 days for UG or put into the [High Demand Collection](#) from where they can be borrowed for shorter periods.

## Digitisation

Subject to copyright restrictions the Library will digitise material according to its [Digitisation Policy](#). Priorities include reading list items – book chapters or journal papers – and items from Special Collections.

## Manchester e-Scholar

The University's institutional repository, [Manchester eScholar](#), manages and disseminates the intellectual outputs of the university. Since the beginning of 2010 all accepted PhD theses have been added to the repository.

## Stock editing

Most stock is kept on the Library's open shelves. As space is at a premium, especially in the Main Library, periodic weeding is used to remove less-well used material to store from where it can be retrieved usually within one working day. [[Store requests](#)]

Unused duplicates are disposed of from time to time.

Weeding and withdrawal criteria are described in the overarching [Collection Management Policy](#).

## Donations

Offers of donations are welcome, but they can normally only be considered for acceptance if they are within the collection areas detailed above.

Other factors taken into account in deciding upon acceptance are listed in the overarching [Collection Management Policy](#).

## Recommendations

The Library welcomes recommendations for the purchase of books from staff and students of the School. Purchases are normally made if:

- Recommendations fall within the scope of the policy as described above;
- Funds are available;
- The item is not already in stock.

Usually:

- Only a single copy of a printed book is purchased;
- Books must normally be written in English.
- They must be of an appropriate academic standard.

For reading list texts, multiple copies and electronic versions will be considered as appropriate.

Recommendations can be made directly to the Faculty Team Librarian, or by filling in [this form](#).

Journal recommendations are considered twice a year in March and November. Because of the forward financial commitment involved journal subscriptions usually have to be balanced by savings elsewhere in the subscription budget. Recommendations should be made through the School Library Representative.

## Contacts

Library Liaison contact

Geoff Rubner, Senior Teaching Fellow

[geoff.rubner@manchester.ac.uk](mailto:geoff.rubner@manchester.ac.uk)

Faculty Team Librarian, Electrical and Electronic Engineering: Dave Hirst

0161-306 4932

[david.hirst@manchester.ac.uk](mailto:david.hirst@manchester.ac.uk)

# Appendices

## Appendix 1 - EEE stock, Joule Library (U) and Main Library

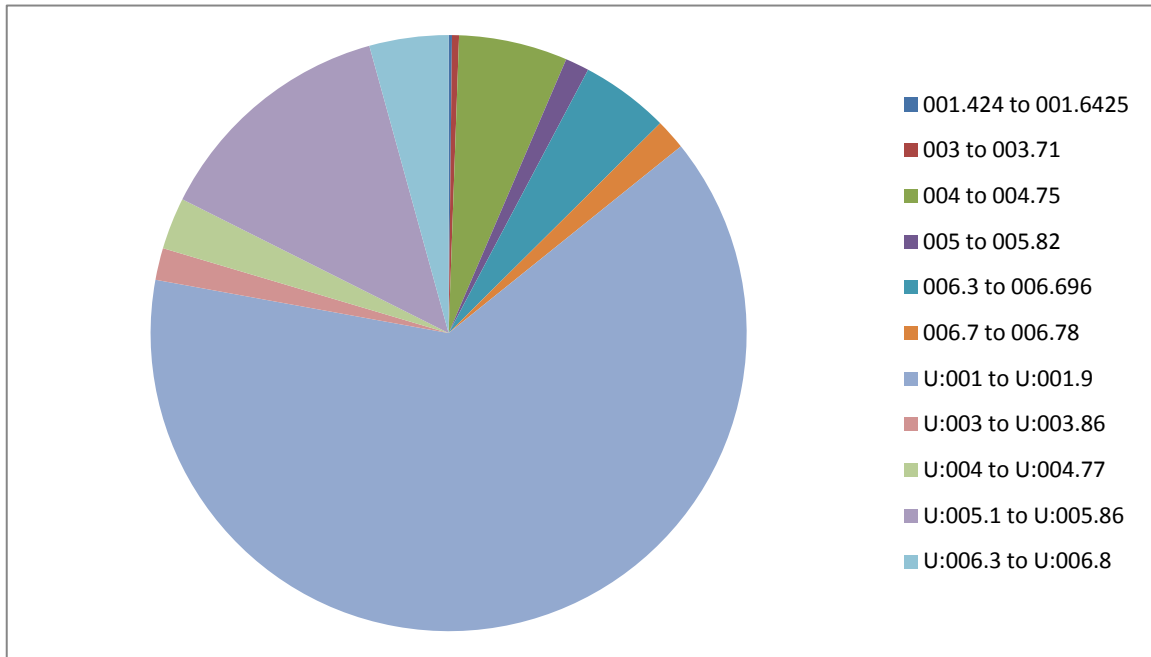
### EEE book classifications

- 001 Science and knowledge in general. Organization of intellectual work
- 002 Documentation, Books, Writings, Authorship
- 003 Writing systems and scripts. Including: signs and symbols
- 004 Computer science and technology. Computing
  - 004.2 Computer architecture
  - 004.3 Computer hardware
  - 004.4 Software
  - 004.5 Human-computer interaction
  - 004.6 Data
  - 004.7 Computer communication
  - 004.8 Artificial Intelligence
  - 004.9 Application-oriented computer-based techniques
- 006 Standardization of products, operations, weights, measures and time

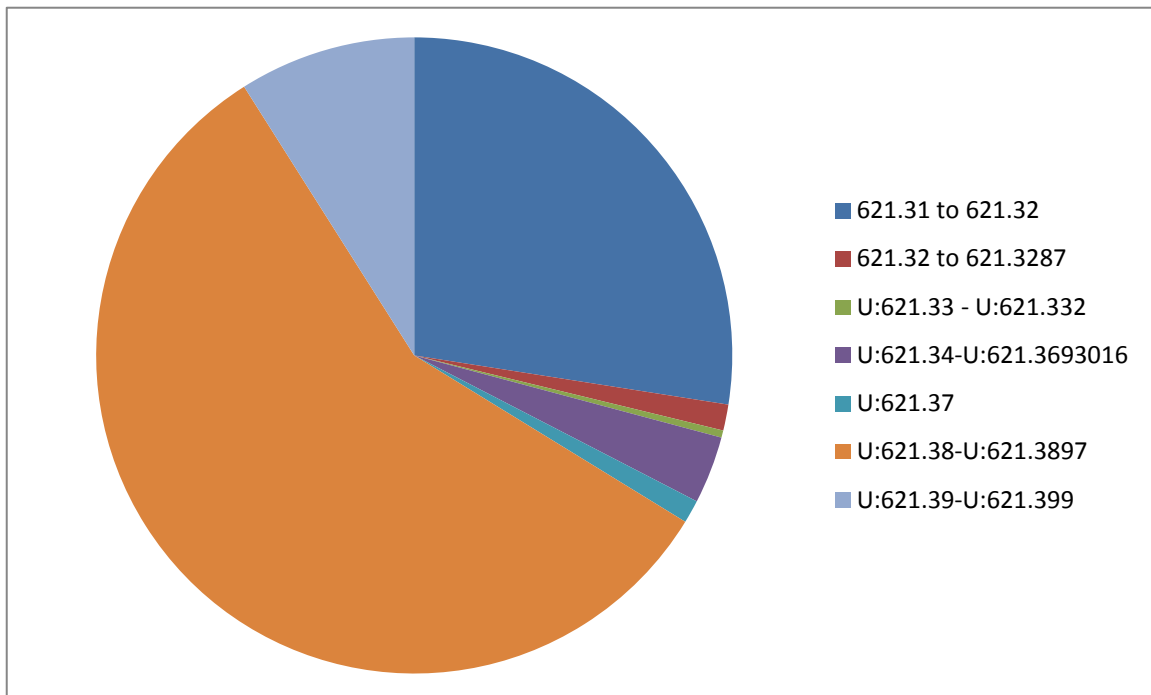
### AND

- 621.3 Electrical, magnetic, optical, communications, computer engineering; electronics, lighting
- 621.367 Technological photography & photo-optics

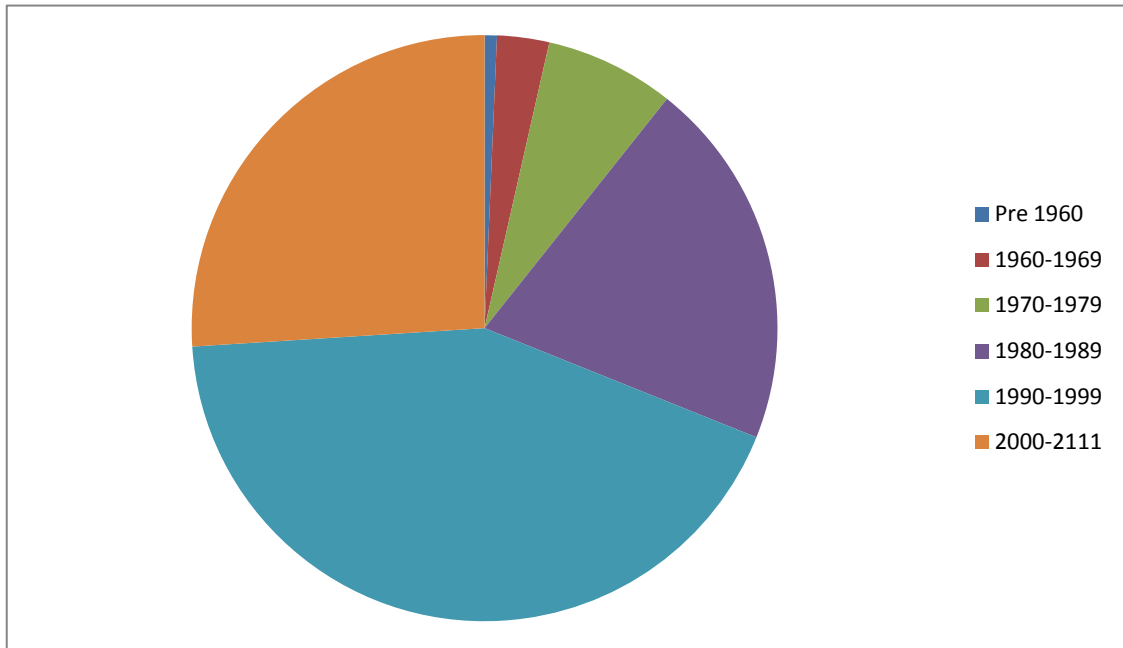
EEE stock by classification 001-006



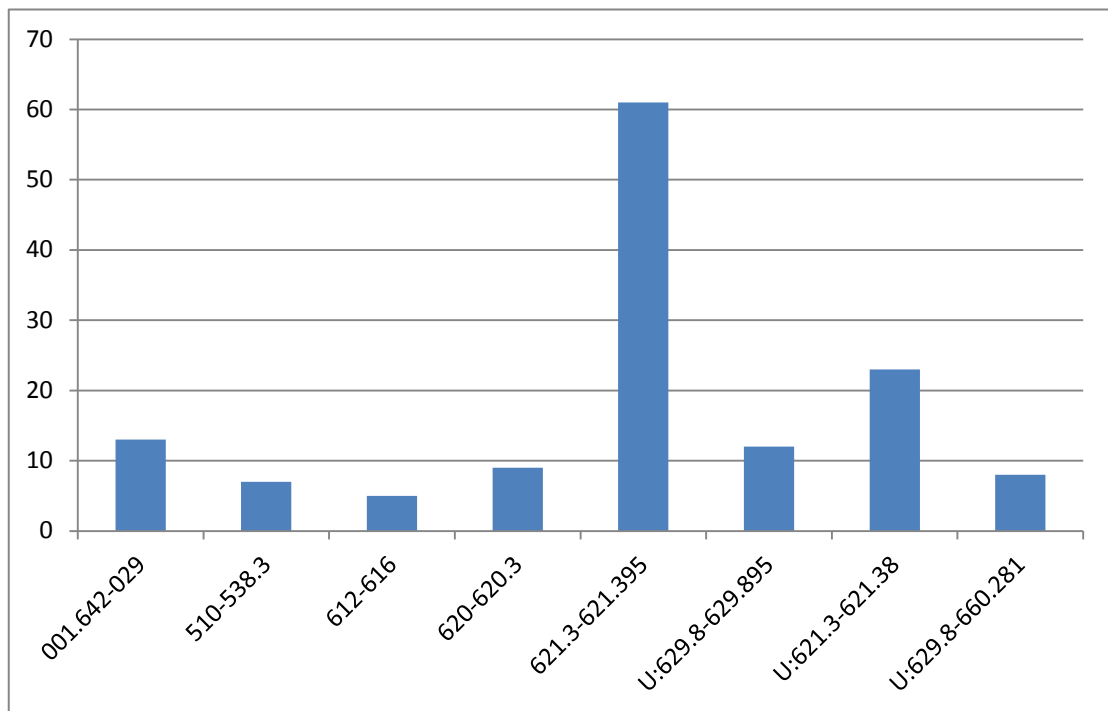
EEE stock by classification 62.3-621.399



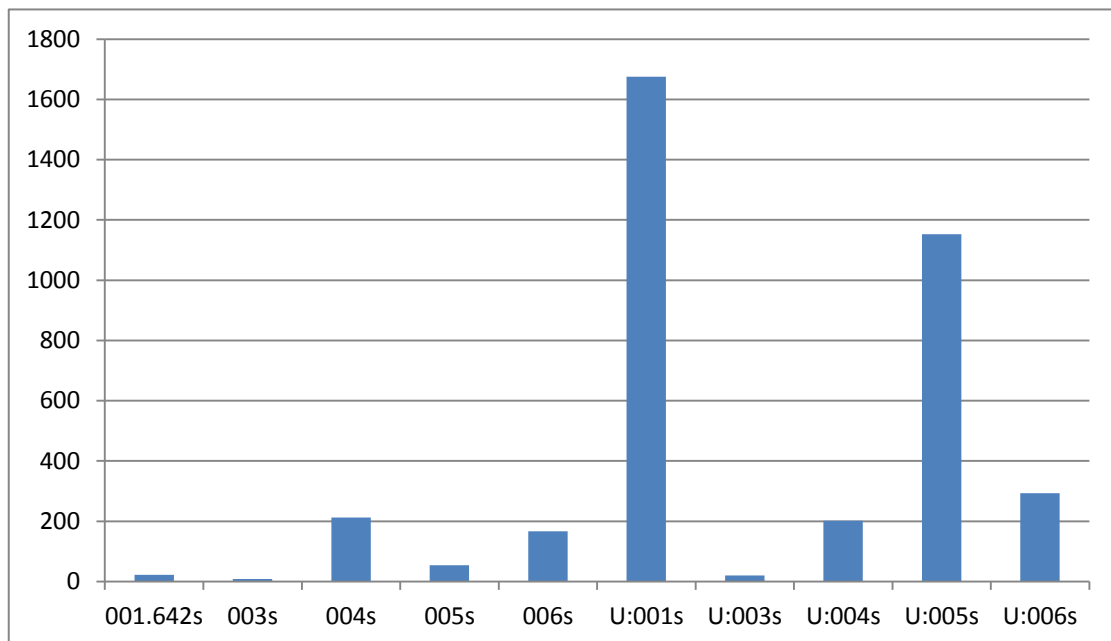
### EEE book stock by year



## Appendix 2 - Book Purchases 2009-10 by classification



## Detailed Breakdown of books 2000-2009 by Classification



Author	Title	Date	No.
Gomez-Exposito	Electric Energy Systems	2008	1
Armstrong	Technology Computer Aided Design for Si, SiGe and GaAs Integrated Circuits	2007	1
Ashenden	The student's guide to VHDL	2007	5
Åström	Feedback systems : an introduction for scientists and engineers	2008	1
Barkat	Signal Detection and Estimation	2005	1
Barnett	Embedded C Programming and the Microchip Pic	2003	10
Baum	Detection and Identification of Visually Obscured Targets	1998	1
Bayliss	Transmission and Distribution Electrical Engineering	2006	1
Binh	Digital Optical Communications	2008	1
bird	Electrical and Electronic Principles and Technology	2007	1
Bishop	The Mechatronics Handbook	2007	1
Blanchard	Systems Engineering and Analysis	2008	5
Blank	Electromagnetic Fields: Biological Interactions and Mechanisms	1996	1
Boldea	Synchronous generators	2005	1
Bolton	Electrical and magnetic properties of materials		1
brey	Applying Pic18 Microcontrollers: Architecture, Programming, and Interfacing Using C and Assembly	2007	2
Burl	Linear optimal control	1999	1
Carlson	Communication systems : an introduction to signals and noise in electrical communication	2002	1
Cavanagh	Digital Design and Verilog HDL Fundamentals	2008	1
Cha	Fundamentals of signals and systems : a building block approach	2006	2
Cha	Fundamentals of Signals and Systems: A Building Block Approach	2006	1
Chambers	Femtocell Primer	2008	1
Cook	Nonlinear dynamical systems	1994	1
cook	Commentary on IEE Wiring Regulations: (BS 7671:2008)	2010	1

Author	Title	Date	No.
Cristoloveanu	Future Trends in Electronics	2009	1
croft	Mathematics for Engineers: A Modern Interactive Approach: AND MyMathLab	2009	2
Cutsem	Voltage Stability of Electric Power Systems	2007	2
Dabney	Mastering SIMULINK	2004	2
Dexheimer	Terahertz Spectroscopy: Principles and Applications	2008	2
Dorf	Modern control systems	2008	1
Durney	Basic Introduction to Bioelectromagnetics	2009	1
Durrani	Single-Electron Devices and Circuits in Silicon	2010	1
Erickson	Fundamentals of Power Electronics	2001	1
Fernando E. Valdes-Perez	Microcontrollers: Fundamentals and Applications with Pic	2008	1
Fernando Perez-Fontan	Modeling the Wireless Propagation Channel: A Simulation Approach with Matlab	2008	1
Fluke Corporation	Calibration: Philosophy in Practice		3
Furse	Basic Introduction to Bioelectromagnetics	2009	1
Gallager	Principles of Digital Communication	2008	1
gaydecki	Foundations of Digital Signal Processing: Theory, Algorithms and Hardware Design	2004	1
Gere	Mechanics of materials.	2008	2
Grainger	Power system analysis		2
Grubin	The Physics of Instabilities in Solid State Electron Devices	1992	1
Haykin	Signals and Systems	2003	2
Haykin	An introduction to analog and digital communications	2007	1
Haykin	Modern wireless communications	2005	2
He	Modeling & Imaging of Bioelectrical Activity: Principles and Applications	2006	1

Author	Title	Date	No.
Hilty	Information technology	2008	1
Horowitz	Power System Relaying	2008	1
Iniewski	Circuits at the Nanoscale	2008	1
Ishii	Handbook of Microwave Technology: Components and Devices: v. 1	1995	1
Jurdak	Wireless Ad Hoc and Sensor Networks	2007	1
kak	Principles of Computerized Tomographic Imaging	2001	1
Khalil	Nonlinear Systems	2002	2
Kirschen	Fundamentals of Power System Economics	2004	1
Krishnamachari	Networking Wireless Sensors	2005	1
Krstic	Nonlinear and Adaptive Control Design	1995	1
Kurose	Computer Networking, A top-down approach		5
Lathi	Modern Digital and Analog Communication Systems	2009	1
Lathi	Linear Systems and Signals	2009	1
Leithbridge	Object-oriented software engineering		1
Leon-garcia	Probability statistics and random processes for electrical engineering		2
Liang	Power Microelectronics: Device and Process Technologies	2008	1
Lonngren	Fundamentals of electromagnetics		1
Ludwig	RF Circuit Design: Theory and Applications: International Version	2008	2
Madisetti	Introduction to Organic Electronic and Optoelectronic Materials and Devices	2009	1
Mae-Wan Ho	Bioelectrodynamics and Biocommunication	1994	1
Malmivuo	Bioelectromagnetism: Principles and Applications of Bioelectric and Biomagnetic Fields	1995	1
Marino	Nonlinear Control Design		1
may	Fundamentals of Semiconductor Fabrication	2003	1
may	Fundamentals of Semiconductor Fabrication	2003	1
may	Fundamentals of Semiconductor Fabrication	2003	1

Author	Title	Date	No.
May	Fundamentals of Semiconductor Fabrication	2010	5
Misra	Biomathematics: Modelling and Simulation	2006	1
Mohan	Power electronics : converters, applications and design	2002	2
Narendra	Stable adaptive systems	2007	1
Narendra	Stable adaptive systems	2007	1
naylor	Introduction to Operations Management	2002	5
Necsulescu	Advanced Mechatronics: Monitoring and Control of Spatially Distributed Systems	2009	1
Nilsson	Electric circuits	2008	10
Nilsson	Electric Circuits	2009	10
Nilsson	Electric circuits	2010	5
norton	An Introduction to Identification	2009	2
O'Dwyer	Handbook of PI and PID Controller Tuning Rules	2009	1
Ogata	Modern Control Engineering: International Version	2009	4
Ogunnaike	Process Dynamics, Modeling and Control	1995	1
Oppenheim	Signals and Systems: AND Computer Explorations in Signals and Systems Using Matlab	2004	2
Patrick	Electricity and Electronics Fundamentals	2008	1
POLJAK	Human Exposure to Electromagnetic Fields	2003	1
Pozar	Microwave Engineering	2004	2
Proakis	Communication systems engineering	2002	2
Ramirez-Iniguez	Optical Wireless Communications: IR for Wireless Connectivity: v.9: Pts.1 & 2	2008	1
Rosch	Bioelectromagnetic Medicine	2004	1
Rosch	Bioelectromagnetic Medicine	2004	1
saadat	Power Systems Analysis	2004	2
Sabah	Electric Circuits and Signals	2008	1

Author	Title	Date	No.
Sanders	Practical Packet Analysis	2007	4
Saunders	Femtocells: Opportunities and Challenges for Business and Technology	2009	1
Saxena	Invention of Integrated Circuits: Untold Important Facts and Impact on Current and Future ICs	2009	1
sedra	Microelectronic Circuits	2010	4
Serway	Physics for Scientists and Engineers	2009	2
Seymour	Electronic devices and components		2
Shur	SiC Materials and Devices: v. 2	2007	1
Shur	SiC Materials and Devices: v. 1	2006	1
Sinclair	Practical Electronics Handbook	2006	1
Singh	Electronic and optoelectronic properties of semiconductor structures /	2003	1
Singh	Electronic and optoelectronic properties of semiconductor structures /	2003	1
Subrahmaniam	A primer in probability	1990	5
Sun	Introduction to Organic Electronic and Optoelectronic Materials and Devices	2008	1
Sun	Test and Diagnosis of Analogue, Mixed-Signal and RF Integrated Circuits: The System on Chip Approach	2008	1
sze	Physics of Semiconductor Devices	2006	1
sze	Physics of Semiconductor Devices	2006	1
Taflove	Computational Electrodynamics: The Finite-Difference Time-Domain Method	2005	2
Tanenbaum	Structured Computer Organization	2009	5
Tse	Fundamentals of Wireless Communication	2005	1
ulaby	Fundamentals of Applied Electromagnetics	2010	3
Ulaby	Electromagnetics for engineers	2008	1
Wang	Understandable Electric Circuits	2010	1

Author	Title	Date	No.
Wildi	Electrical machines, drives, and power systems		2
Wong	Nano-CMOs Circuit and Design	2005	1
Wood	Power Generation, Operation and Control	2007	2
Yeo	Design of CMOS RF Integrated Circuits and Systems	2010	1
Yoo	Semiconductor Manufacturing Technology	2008	1
Yoo	Semiconductor Manufacturing Technology	2008	1
zhang	Cooperative Wireless Communications	2009	1
Zwolinski	Digital system design with VHDL		1
Rosch	Bioelectromagnetic Medicine	2004	1
Rosch	Bioelectromagnetic Medicine	2004	1
saadat	Power Systems Analysis	2004	2
Sabah	Electric Circuits and Signals	2008	1
Sanders	Practical Packet Analysis	2007	4
Saunders	Femtocells: Opportunities and Challenges for Business and Technology	2009	1
Saxena	Invention of Integrated Circuits: Untold Important Facts and Impact on Current and Future ICs	2009	1
sedra	Microelectronic Circuits	2010	4
Serway	Physics for Scientists and Engineers	2009	2
Seymour	Electronic devices and components		2
Shur	SiC Materials and Devices: v. 2	2007	1
Shur	SiC Materials and Devices: v. 1	2006	1
Sinclair	Practical Electronics Handbook	2006	1
Singh	Electronic and optoelectronic properties of semiconductor structures	2003	1
Singh	Electronic and optoelectronic properties of semiconductor structures	2003	1
Subrahmaniam	A primer in probability	1990	5

Author	Title	Date	No.
Sun	Introduction to Organic Electronic and Optoelectronic Materials and Devices	2008	1
Sun	Test and Diagnosis of Analogue, Mixed-Signal and RF Integrated Circuits: The System on Chip Approach	2008	1
szc	Physics of Semiconductor Devices	2006	1
szc	Physics of Semiconductor Devices	2006	1
Taflove	Computational Electrodynamics: The Finite-Difference Time-Domain Method	2005	2
Tanenbaum	Structured Computer Organization	2009	5
Tse	Fundamentals of Wireless Communication	2005	1
Ulaby	Fundamentals of Applied Electromagnetics	2010	3
Ulaby	Electromagnetics for engineers	2008	1
Wang	Understandable Electric Circuits	2010	1
Wildi	Electrical machines, drives, and power systems		2
Wong	Nano-CMOS Circuit and Design	2005	1
Wood	Power Generation, Operation and Control	2007	2
Yeo	Design of CMOS RF Integrated Circuits and Systems	2010	1
Yoo	Semiconductor Manufacturing Technology	2008	1
Yoo	Semiconductor Manufacturing Technology	2008	1
zhang	Cooperative Wireless Communications	2009	1
Zwolinski	Digital system design with VHDL		1
Wong	Nano-CMOS Circuit and Design	2005	1
Wood	Power Generation, Operation and Control	2007	2
Yeo	Design of CMOS RF Integrated Circuits and Systems	2010	1
Yoo	Semiconductor Manufacturing Technology	2008	1
Yoo	Semiconductor Manufacturing Technology	2008	1
zhang	Cooperative Wireless Communications	2009	1

Author	Title	Date	No.
Zwolinski	Digital system design with VHDL		1
Yoo	Semiconductor Manufacturing Technology	2008	1
zhang	Cooperative Wireless Communications	2009	1
Zwolinski	Digital system design with VHDL		1

## Appendix 3 - Current journal subscriptions in the area of EEE

## Appendix 4 - Other Subscriptions (Databases and E-books)

Compendex	Indexes and provides abstracts from over 4,500 periodicals, reports, books and conference proceedings in the fields of engineering and technology. It covers the period 1884 to date and is updated quarterly. Although produced in the USA, it also covers the principal European journals.
Computer and Information Systems Abstracts	Subjects covered include Artificial Intelligence, Computer Programming, Computer Systems Organization, Hardware, Information Systems Mathematics of Computing, Software Engineering
Inspec	The major electrical and electronic engineering database, INSPEC scans papers from approximately 4200 journals, 1000 conferences and other publications, adding over 250,000 records per year - the earliest records date from 1896.
Electronics and Communications Systems Abstracts	Subject coverage of Components and Materials, Photonics, Control, Telecommunications, Power Systems and Theoretical Electronics
Solid State and Superconductivity Abstracts	deals with all aspects of theory, production, and application of solid state materials and devices - as well as the new high- and low-temperature superconductivity technology,
ACM Digital Library	Full text of all ACM (Association for Computing Machinery) journals and conference proceedings from 1985 - date. A few journals have earlier issues included.
Index to Theses	Index to Theses covers the period from 1716 to date. It includes theses accepted for higher degrees by the universities of Great Britain and Ireland, and (where relevant) by the Council for National Academic Awards. It does not include higher degrees awarded solely in respect of published work or dissertation which form a partial fulfilment of higher degrees, in conjunction with written examinations. From 1986 onwards abstracts are included for most entries.
Programmer's Heaven	Produced by the Association of Shareware Professionals, this site is "A complete start-off for programming related web surfing and file downloading". The site includes downloadable source code for a wide range of languages, platforms and applications as well as full-text articles, tutorials and help files, all of which are free.
Science Direct	Provides full-text access to over 2,400 journals, plus book series, encyclopaedias and other reference works.

SCOPUS	The Scopus database indexes more than 14,000 journal titles, in some cases back to 1966. More coverage is given to European information sources than most other databases.
Web of Science	This multidisciplinary database covers the most highly cited journals in science, engineering, the social sciences and the humanities
ZETOC	A large multidisciplinary database containing contents pages of 20,000 journals and details of 16,000 conferences per year. Also provides an email table of contents alerting service
Applied Science and Technology Index	ASTI contains information about journal articles on all aspects of science and technology: from electronics to the environment and from transport to textiles. It covers the period from 1983 onwards. To keep its size within reasonable bounds, ASTI does not give a comprehensive coverage but includes only selected periodicals. As a result, it is a good way of finding a few references on a topic - but is not suitable for a comprehensive "everything ever written" search.
Expanded Academic ASAP	General resource, covering a wide range of periodicals and topics, part of InfoTrac. Use this database to find information on almost any subject. The starting date for coverage of individual titles varies, as does the split between full-text and abstract only form.

### E-book providers

KNOVEL	Provides the full text of over 1,000 reference works in science and technology. Content includes data handbooks, encyclopaedias, dictionaries, monographs, conference proceedings and datasets
NetLibrary	Provides full text access to over 10,000 books plus over 340 publicly accessible e-books in a range of subject areas
Referex	This collection provides a collection of handbooks and practical guides on mechanical and materials engineering including coverage of automotive, aeronautical, marine and maintenance engineering, metallurgy, tribology, quality systems and health and safety
Springer eBook Collection	Provides access to over 6,500 books published since the 1980's. These titles are also included in the library catalogue
Elsevier Science Direct books	
Dawsonera	The service provides access to a selection of e-books which are also listed on

	the catalogue.
MyiLibrary	MyiLibrary uses advanced security software to protect the copyright of the eBooks available for access. This software is designed to detect and prevent any usage that is consistent with a breach in copyright such as spidering software attempting to copy a large amount of pages. As a result of this sometimes genuine accounts on MyiLibrary that have similar usage patterns are locked while the usage is examined. We advise that you either use the Table of Content or search facilities to navigate through the title to avoid locking titles.