Electrical Engineering & Computer Science

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SUBJECT PAGE: http://researchguides.case.edu

I. Purpose:

The primary purpose is to support the research and teaching activities of the Department of Electrical Engineering and Computer Science (EECS). EECS offers programs that lead to both undergraduate (Bachelor of Science) and graduate (Master of Science or Doctor of Philosophy) degrees in Electrical Engineering, Systems and Control Engineering, Computer Engineering, and Computer Science. Major educational focus is. Publications in the field of electrical engineering and computer science are also of interest to researchers and students in the fields of mathematics, biomedical engineering, business, chemical engineering, etc.

II. General Collection Guidelines:

A. Languages: English is the primary language of collection. Other languages may be considered with emphasis towards English translations.

B. Chronological Guidelines: Books and journals of current teaching and research interests are the primary focus. Retrospective collecting may occur at the request of a new faculty member or by a faculty member with a new research area.

C. Geographical Guidelines: There are no specific geographical limits of coverage, but primary focus would be North America.

D. Treatment of Subject: Selective acquisition of lower and upper division textbooks, laboratory manuals, introductory works and popular materials.

E. Types of Materials: Includes selective acquisition of treatises, encyclopedias, atlases, dictionaries, directories, abstracts, handbooks, and the proceedings and transactions of conferences and symposia. Theses and dissertations from other institutions and audio-visual material generally are excluded. All formats of materials will be considered, while prominence may be placed on electronic resources or OhioLINK offerings.

Journals are collected in both print and electronic formats.

F. Dates of Publication: Emphasis is on current works with retrospective materials purchased selectively.

G. Deselection: Since the collection is considered a research collection, deselection is done with great care. Special consideration is given to the relevance of older materials to the study of the history of science. Older or fragile materials that cannot be deselected are considered for relocation to remote storage.

H. Cooperative and Related Collections: Case is a founding member of OhioLINK, the Ohio Library and Information Network. OhioLINK is a statewide consortium of public and private colleges and universities, the State Library of Ohio, and technical and community colleges supporting a combined central catalog of statewide holdings, selected online indexes, full-text databases, reference tools, ebooks, & image collections. OhioLINK's goal is to provide easy access to information and rapid delivery of library materials throughout the state. Collection development decisions regarding shared electronic resources are made through the OhioLINK Cooperative Information Resources Management (CIRM) Committee. Additional collaboration on collection management may occur with other centers or libraries, as needed.

I. Other General Considerations: The primary areas of research in Computer Science include bioinformatics, computational genomics, computational biology, data mining and visualization, pervasive networks, and distributed systems. The primary areas of research in Electrical and Computer Engineering include biological robotics, electronics and instrumentation, embedded systems, micro and nano systems, and systems biology.

Materials dealing with subject specific computer applications, including microcomputers, data processing, and software are selectively acquired according to guidelines in appropriate subject statements.

J. Electronic Resources: Additional considerations are put into the electronic resources and databases that support the research of this department. To see the Electrical Engineering specific databases, proceed to http://library.case.edu/databases/rdbindex.aspx?subject=318|334. To see Computer Science specific databases, proceed to http://library.case.edu/databases/rdbindex.aspx?subject=318|414.

III. Observations and Qualifications by Subject and LC Class:

CDP Levels:

A. Minimal Level: Indicates that only highly selective purchases-- usually materials either for reference use, general interest, or for the support of a very specific research need-will be made.

B. Instructional Level: Indicates that standard works and selected current works will be required to support undergraduate and most graduate instruction or sustained independent study. This will include reference and fundamental bibliographic tools pertaining to the subject and a selection of representative journals. Retrospective purchasing is usually limited to standard works.

C. General Research Level: Indicates that the library will acquire most of the materials required to support research through the doctoral degree level and the general research needs of the faculty. Allows for retrospective purchasing depending upon the characteristics and needs of the individual disciplines and their state of development in the collection.

D. Comprehensive Level: Indicates that all currently-published relevant material will be acquired. Involves extensive programs of retrospective purchasing and searching for lacunae.

E. Intensive Level: Indicates the library will strive to acquire all appropriate current and retrospective written or recorded materials in all languages, editions, translations, and formats; manuscripts and other archival materials are acquired extensively. This level is appropriate for the creation or maintenance of a collection serving as a national bibliographic resource.

Subject	LC Class	Location	CDP Collecting Level	Collection Manager	Collection Notes
Related subject Area: Cybernetics (Includes artificial intelligence, pattern recognition, machine learning, knowledge representation, planning, and neural networks.)	Q 300-342	KSL	A	Brian C. Gray	
Related Subject Area: Information Theory	Q 350-390	KSL	A	Brian C. Gray	
Computer Science: Includes calculating machines, computer science, electronic data processing, software engineering, operating systems, computer architecture, simulation, programming languages, and computer mathematics.	QA 75-76	KSL	C	Brian C. Gray	
Electrical Engineering, Electronics, & Nuclear Engineering (General): Includes congresses, general works, dictionaries, encyclopedia, directories, societies, yearbooks, history, biography, textbooks, tables, and study & teaching.	TK 1-260	KSL	B	Brian C. Gray	

Electrical Engineering, Electronics, & Nuclear Engineering: Includes electric standards & measurements, electric meters, testing of electric machinery, electric engineering & testing laboratories, general specifications, drawings, estimates, electric apparatus, electric networks, special topics, and theory of machinery.	TK 275-1000	KSL	C	Brian C. Gray	
Production of Electric Energy or Power: Includes electric power systems control, system stability, production from heat, production from waterpower, production from windpower, production from solar energy, direct-current engineering, alternate-current engineering, and electric power plants.	TK 1001-1841	KSL	C	Brian C. Gray	
Dynamoelectric Machinery: Includes motive power, machinery, auxiliaries, generators, motors, transformers, and switchboards.	TK 2000-2891	KSL	C	Brian C. Gray	
Devices for Production of Electricity by Direct Energy Conversion: Includes chemical action, fuel cells, batteries, thermoelectricity (applied), solar batteries, solar cells, magnetohydrodynamic generators, electrohydrodynamic generators, and electric energy	TK 2896-2986	KSL	C	Brian C. Gray	

storage.					
Distribution or Transmission of Electric Power & the Electric Power Circuit: Includes testing of systems, lightning protection, transformation of electricity, direct-current systems, alternating-current systems, wiring, conductors, cables, insulation & insulating materials, fuses, and connectors.	TK 3001-3521	KSL	C	Brian C. Gray	
Applications of Electric Power	TK 4001-4102	KSL	C	Brian C. Gray	
Electric Lighting	TK 4125-4399	KSL	A	Brian C. Gray	
Electric Heating	TK 4601-4661	KSL	A	Brian C. Gray	
Telecommunication: Includes signal processing & theory, wireless communication systems, laser communication systems, digital communications, satellites in communication, data transmission systems, computer networks, telegraph, electroacoustics, telephone, radio, radar, television, video, and fax.	TK 5101-6720	KSL	C	Brian C. Gray	
Installation of Household Appliances	TK 7018-7301	KSL	A	Brian C. Gray	
Miscellaneous Electrical Industries: Includes electric train signaling, train telegraph, and manufacture of electrodes.	TK 7611-7725	KSL	A	Brian C. Gray	
Electronics: Includes electronic circuits, apparatus & materials, amplifiers, antennas, tubes, diodes, transistors, semiconductors, microwaves,	TK 7800-7882	KSL	C	Brian C. Gray	See General Engineering Collection Management Policy for "Engineering-

applications of electronics, dielectrics, detectors, and sensors.					Instruments."
Computer Engineering and Computer Hardware	TK 7885-7895	KSL	C	Brian C. Gray	
Optoelectronic Devices and Photoelectronic Devices: Includes photoemissive tubes, phototubes, semiconductor devices, and optical data processing systems.	TK 8300-8404	KSL	C	Brian C. Gray	
Nuclear Engineering and Atomic Power	TK 9001-9401	KSL	B	Brian C. Gray	
Electricity for Amateurs: Includes amateur constructors' manuals.	TK 9900-9971	KSL	A	Brian C. Gray	
Related Subject Area: Computational Linguistics (Includes natural language processing and understanding.)	P 98	KSL	-	William Claspy (English)	See English Collection Management Statement.
Related Subject Area: System Theory	Q 295	KSL	-	Brian C. Gray (Engineering) (General Science)	See General Science Collection Management Policy. Also, see "Systems Engineering" under the General Engineering Collection Management Policy.
Related Subject Area: Machine Theory (Includes formal languages and automata.)	QA 267-268.5	KSL	-	Brian C. Gray	See Mathematics Collection Management Policy.
Related Subject Area: Control Theory	QA 402.3+	KSL	-	Brian C. Gray (Mathematics)	See Mathematics Collection Management

					Policy.
Related Subject Area: Electricity in General	QC 501-667	KSL	-	Earnestine Adeyemon (Physics)	See Physics Collection Management Policy.
Related Subject Area: Industrial Engineering (Includes management engineering.)	T 55.4-60	KSL	-	Brian C. Gray	See General Engineering Collection Management Policy.
Related Subject Area: Computer Graphics	T 385 (Mechanical drawing)	KSL	-	Brian C. Gray	By Request.
Related Subject Area: Engineering Mathematics & Analysis (Includes engineering analysis.)	TA 329-348	KSL		Brian C. Gray	See General Engineering Collection Management Policy.
Related Subject Area: Control Engineering	TJ 212-225	KSL	-	Brian C. Gray (Mechanical Engineering)	See Mechanical Engineering Collection Management Policy.
Related Subject Area: Electric Ignition for Automobiles	TL 213	KSL	-	Brian C. Gray (Mechanical & Aerospace Engineering)	See Mechanical & Aerospace Engineering Collection Management Policy.

* This document will be reviewed on an annual basis or with significant departmental program changes.