This brief guide to materials in the Library of Congress (LC) on computer aided design and/or computer aided manufacturing lists reference materials and other information sources under 13 headings: (1) brief introductions; (2) LC subject headings used for such materials; (3) textbooks; (4) additional titles; (5) glossaries and handbooks; (6) bibliographies; (7) state-of-the-art reviews and conference proceedings; (8) abstracting and indexing services; (9) journals that often contain relevant articles; (10) selected representative journal articles; (11) report indexes; (12) selected pamphlets and other vertical file materials; and (13) additional sources of information. (DJR)
LC Science Tracer Bullet

Science Reference Section, Science and Technology Division
Library of Congress, 10 First Street, S.E., Washington, D.C. 20540

ISSN 0090-5232

CAD/CAM
(Computer Aided Design/Computer Aided Manufacture)
Updated by George D. Havas

TB 85-7
July 1985

BRIEF INTRODUCTIONS


Reviews the use of computers in manufacturing applications including computer aided design, computer aided manufacturing and robotics.


SUBJECT HEADINGS used by the Library of Congress, under which books on CAD/CAM can be located in most card, book, and online catalogs include the following:

- CAD CAM SYSTEMS (Highly relevant)
- COMPUTER-AIDED DESIGN (Highly relevant)
- ENGINEERING DESIGN--DATA PROCESSING (Highly relevant)
- PRODUCTION ENGINEERING--DATA PROCESSING (Highly relevant)
- PRODUCTION MANAGEMENT--DATA PROCESSING (Highly relevant)
- STRUCTURAL DESIGN--DATA PROCESSING (Highly relevant)
- COMPUTER GRAPHICS (Relevant)
- ARTIFICIAL INTELLIGENCE (Related)
- INTERACTIVE COMPUTER SYSTEMS (Related)

TEXTS


*Available in the reference collection, Science Reading Room
Bibliography: p. 315-324.


Includes bibliographical references and index.


Hulbert, Lewis Eugene, and Robert L. Heilman. Interactive computer graphics: a spectrum of systems for better design at lower costs. Columbus, Ohio, Battelle Memorial Institute, cl976. 20 p. T385.H84
Includes bibliographical references.


ADDITIONAL TITLES

"Contains some of the paper[s] ... presented at the Fifth Automation Technology Conference held in Monterey, California."

"No. 1852."


Includes bibliographies and index.


Bibliography: p. 305-316.
"Proceedings of two conference organized by the British Computer Society."

Includes bibliographies and index.


Includes bibliographical references and indexes.

GLOSSARIES, HANDBOOKS


CAD/CAM: design and drafting systems, CAD/CAM systems, graphics systems, NC tape prep, software packages, CRTs, workstations, plotters and printers, digitizers. Dearborn, Mich., Society of Manufacturing Engineers, Marketing Services Division, c1983. 590 p. TS155.6.C34 1983*


BIBLIOGRAPHIES


STATE-OF-THE-ART REVIEWS AND CONFERENCE PROCEEDINGS


Conference on Interactive Techniques in Computer Aided Design, Bo-
techniques in computer aided design, Palazzo dei congressi, Bologna,
Italy, September 21-23, 1978. Sponsored by Association for Com-
puting Machinery, Italian Chapter ... et al. New York, Institute
of Electrical and Electronics Engineers, c1978. 496 p.
Includes bibliographical references. TA174.C594 1978

York, Institute of Electrical and Electronics Engineers.
Includes bibliographies. TA174.D46a

European Conference on Computer Aided Design in Medium Sized and Small
Industries, 1st, Paris, 1980. CAD in medium sized and small indus-
tries: proceedings of the First European Conference on Computer
Aided Design in Medium Sized and Small Industries, MICAD 80, Paris,
23-26 September 1980. Edited by Jean Mermet. Amsterdam, New York,
Includes bibliographical references.

IFIP TC-5 Working Conference on Artificial Intelligence and Pattern
intelligence and pattern recognition in computer aided design: pro-
cedings of the IFIP Working Conference, organized by Working Group
Edited by Jean-Claude Latombe. Amsterdam, New York, North-Holland
Includes bibliographies.

IFIP WG 5.2 Working Conference on CAD/CAM as a Basis for the Develop-
ment of Technology in Developing Nations, Sao Paulo, Brazil,
1981. CAD/CAM as a basis for the development of technology in
developing nations: proceedings of the IFIP WG 5.2 Working
Conference on CAD/CAM as a Basis for the Development of Technology
in Developing Nations, Sao Paulo, Brazil, October 21-23, 1981.
Edited by Jose L. Encarnacao, Oswaldo F. Torres, and Ernest A.
Warman. Amsterdam, New York, North-Holland Pub. Co.; New York,
sole distributors for the U.S.A. and Canada, Elsevier North-Holland,

IFIP WG 5.2-5.3 Working Conference on Man-Machine Communication in
CAD/CAM, Tokyo, Japan, 1980. Man-machine communication in CAD/CAM:
proceedings of the IFIP WG 5.2-5.3 Working Conference held in Tokyo,
Amsterdam, New York, North-Holland Pub. Co.; New York, sole dis-
274 p. TA174.I33 1980

IFIP Working Conference on Computer-Aided Design Systems, Austin, Tex.,
1976. CAD systems: proceedings of the IFIP Working Conference on
Computer-Aided Design Systems. Edited by John J. Allan III. Am-
tsterdam, New York, North-Holland Pub. Co.; New York, sole distrib-

Includes bibliographical references and index.


Includes bibliographical references.

ABSTRACTING AND INDEXING SERVICES that index relevant journal articles and other literature are listed below. Some suggested terms are given as aids in searching:

Applied Mechanics Review (1948-) TA1.A63953*
See: Computer Aided Design
Computer Aided Manufacturing
Computer Graphics

Applied Science & Technology Index (1913-) Z7913.I7*
See: Computer Aided Design
Computer Aided Manufacture
Computer Graphics

Computer Abstracts (1957-) Z6654.C17C64*
See: Computer Aided Design
Computer Aided Manufacturing

Computer & Control Abstracts (Science Abstracts-Series C) (1966-)
QA76.C548*
See: CAD
Computer Graphics

Note: Consult reference librarian for location of abstracting and indexing services in the Science Reading Room.
Computer Literature Index (1980-) QA76.Q3*
See: Computer Aided Design
Computer Aided Manufacturing
Graphics
Interactive Computing Applications

Current Technology Index (1962-) Z7913.B7*
See: cross references under Computer Aided Design
cross references under Computerized Numerically Controlled ... Industrial Design, Computer Aided

Electrical & Electronics Abstracts (Science Abstracts--Series B)
(1898) Q1.S3* and Z5833.E37*
See: CAD
Computer Graphics

Engineering Index (1884-) Z5851.E62*
See: Computer Aided Design
Computer Aided Manufacture

See: CAD
CAM

JOURNALS that often contain articles relevant to CAD/CAM are

Computer Aided Design TA174.C58
Computer Graphics T385.C56
Computer Graphics World T385.C558
Datamation T175.M26
High Technology T1.H5

SELECTED REPRESENTATIVE JOURNAL ARTICLES


REPORTS and other types of literature are indexed in the following guides:

Government Reports Announcements & Index (1946-) Z7916.G78*
See: Computer Aided Design
Computer Aided Manufacturing

Monthly Catalog of United States Government Publications (1895-) Z1223.A18*
See: Engineering Design--Data Processing

SELECTED MATERIALS available in Science Reading Room pamphlet boxes include:


ADDITIONAL SOURCES OF INFORMATION

IEEE Computer Society
10662 Los Vaqueros Circle
Los Alamitos, California 90720
Telephone: (714) 821-8380

National Computer Graphics Association
8401 Arlington Blvd.
Suite 601
Fairfax, Virginia 22031
Telephone: (703) 698-9600

Society of Manufacturing Engineers
P.O. Box 930
Dearborn, Michigan 48121
Telephone: (313) 271-1500

For the names and addresses of other organizations, call or write to

National Referral Center
Library of Congress
10 First Street, S.E.
Washington, D.C. 20540
Telephone: (202) 287-5670