

Computer Integrated Manufacturing (CIM) systems technology refers to the technology, tool or method used to improve entirely the design and manufacturing process and increase productivity, to help people and machines to communicate. It includes CAD (Computer Aided Design), CAM (Computer Aided Manufacturing), CAPP (Computer-Aided Process Planning, CNC (Computer Numerical Control Machine tools), DNC (Direct Numerical Control Machine Tools), FMS (Flexible Machining Systems), ASRS (Automated Storage and Retrieval Systems), AGV (Automated Guides Vehicles), use of robotics and automated conveyance, computerized scheduling and production control, and a business system integrated by a common database. Most of print sources (such as books, periodicals) related to computer integrated manufacturing systems technology are located on 4th or 10th floor in Houston Cole Library. Electronic sources (such as databases) can be accessed via computer station on each floor.

Books

Books are important sources of basic information on a topic, providing necessary definitions, background information, and statistics. Books provide a foundation for research, which can be supplemented by more current information from periodical articles. Books may also contain useful bibliographies, which may lead to additional sources of research.

When looking for books, consult the Library of Congress Subject Headings to select the proper term(s) to use as subjects under “Find Books (Library Catalog)”. The following table shows computer integrated manufacture systems technology in the Library of Congress System:

HD31	Industrial Management	HD9720-9725	CAD/CAM Systems --- Manufacturing
QA841	Kinematics	T 385	Mechanical Drawing/Computer Graphics/AutoCAD
T353	Mechanical Drawing/General Works	TA165	Engineering Instruments/ Industrial Instrumentation
TA166	Human Engineering/Ergonomics	TA174	Engineering Design
TA 401-404	Materials of Engineering and Construction/General Works	TA405	Materials of Engineering and Construction/Strength of materials
TJ211	Robotics	TJ212-TJ225	Control Engineering Systems /Automatic machinery
TJ227-240	Machine Design and Drawing	TJ950	Pneumatic Machinery
TJ1160	Machine Shop Practice	TJ1185-1194	Machine Tools and Machining
TK7866	Electronic Drafting	TK7881	Industrial Electronics
TK7881.2	Electronics/Electronic Control	TP1120	Plastics and Plastics Manufacture
TS155	Production Management/General Works	TS155.6	Production Management/General Works
TS155.63	Production Management/Computer Integrated Manufacturing Systems	TS156-156.8	Production Management/Quality Control/Process Control
TS157-157.7	Production Management/ Production Control/Just-in-time	TS176-181	Manufacturing Engineering and Process Engineering/Plant

	Systems		Layout/Planning for Machinery
TS183	Manufacturing Processes	TS200-TS215	Metal Manufactures /Metalworking Machinery

A detailed list of reference book titles and library subscribed print periodical titles related to technology can be accessed at

http://www.jsu.edu/depart/library/personal/HW_WEB/technologyresource.html

Periodicals

Current print issues of periodicals to which the Library subscribes can be found at the Current Periodical Section on 4th & 10th floor. Older print issues of magazines and journals, usually bound into complete years or volume numbers, are located on 4th & 10th floor Bound Periodical Section. You can also use Library subscribed electronic databases (<http://www.jsu.edu/depart/library/graphic/articles.htm>) to identify articles on particular topics in magazines, journals, and newspapers. The following are commonly used databases for technology: Academic Search Premier, Access Science, ACM Online Guide, Business Source Premier, Cambridge Scientific Abstracts (including *Health & Safety Science Abstracts*), Elsevier ScienceDirect, Expanded Academic ASAP, Newspaper Source, ProQuest Databases, Vocational and Career Collection, and Wiley InterScience Journal. A detailed e-journal list is available upon request (contact at: hwang@jsucc.jsu.edu).

Other Sources

Manufacturing Career Guide (<http://www.hake.com/page40.html>): Explores careers in Manufacturing with the following links to job descriptions, which include information such as daily activities, skill requirements, salary and training required.

Industry Engineering Magazine (<http://www.iienet.org/magazine/>): Searchable database with full text article available from Dec. 1998 to Jan. 2001.

Advanced Manufacturing (<http://www.advancedmanufacturing.com>): Offers free subscriptions to Advanced Manufacturing magazine and contains related research reports. Also contains new ideas on theory and technology.

Society of Manufacturing Engineers (<http://www.sme.org>): The world's leading professional society supporting lifelong manufacturing education. Through member programs, publications, expositions and professional development resources, SME promotes an increased awareness of manufacturing engineering and helps keep manufacturing professionals up to date on leading trends and technologies.

Best Manufacturing Practices (<http://www.bmpcoe.org>): Identifies and validates best practices, documents them, and then encourage industry, government, and academia to share information about them.