Overview

The collection's primary function is to support research and teaching programs in the area of Engineering based on the research interests of the Faculty of Engineering. In addition, the collection supports affiliated researchers in Biomedical Engineering, Energy Engineering, and Logistics and Supply Chain Management.

Subject areas supported

The collection reflects the interests of the following departments:

- Department of Biomedical Engineering
- Department of Computer Science and Engineering
- Department of Electronic Engineering
- Department of Information Engineering
- Department of Mechanical and Automation Engineering
- Department of Systems Engineering and Engineering Management

The faculty offers B.Sc., M.Sc., M.Phil., and Ph.D. degrees.

Research areas supported for Department of Biomedical Engineering include biodesign, bioinstrumentation, brain computer interface, biomechanictronics, bioengineering, biomaterial, biomedical imaging, biomolecular engineering, biomems, biomimetics, biomechanics , bioreactor, biosensors, cardiovascular biology, cell reprogramming, computed tomography, digital holographic microscopy, drug delivery, electrophysiology, fluid mechanics, fluorescence, genetic engineering, hydrogel, inverse problem, light waves, laser medicine , magnetic resonance imaging (mri), mechanobiology, microfluidics, microscopy, molecular imaging, medical instrumentation, medical device, medical device regulatory, medical device law, medical device intellectual property, medical robot, neuroplasticity, neural engineering, neuroengineering, nanotechnology, nanomedicine, nanomaterials , nucleic acids, optical microscopy, prosthetics, regenerative medicine, rehabilitation engineering, rehabilitation robot, stem cells, super-resolution imaging, tissue engineering, ultrasound imaging and wearable healthcare device.

Research areas supported for Department of Computer Science and Engineering include mobile embedded devices, computer graphics, multimedia processing, circuitry theory, logic system design, computer architecture and interfacing, computer arithmetic, programming, data structure, operating systems, software engineering, computer-aided design, computer network, hardware-accelerated bio-related processing, hardware-aided security, multi-core systems, data analytics, AI, machine learning, architecture and super-computing.

Research areas supported for Department of Electronic Engineering include digital signal processing and multimedia technology, integrated circuit technology, microelectronics and photonics, and microwave and wireless engineering.

Research areas supported of Department of Information Engineering include communications and information theory, cyber security, multimedia processing, networking theory, internet and applications, optical communications, wireless communications and networking.

Research areas supported for Department of Mechanical and Automation Engineering include advanced microsystem, advanced robotics, applied control and computing, Micro and Nano systems, computational intelligence, computational modeling and design, computer aided design, computer vision, e-Manufacturing, integrated manufacturing, Nano energy, networked sensors and robotics, intelligent control systems, and smart materials and structures.

Research areas supported for Systems Engineering and Engineering Management include financial engineering, information systems, logistics and supply chain management, operations research and service engineering and management.

Research areas supported for Biomedical Engineering include biomaterials and regenerative medicine, biomedical devices and biosensors, bio-molecular engineering and Nanomedicine, and medical imaging and informatics.

Intellectual Level

Collected in general

- Basic
- General Academic
- Advanced Academic
- Professional

Levels not collected

- Juvenile
- Popular

Formats collected

Formats and materials acquired, in general, electronic format is preferred.

- Conference proceedings
- Conference Monograph
- Festschriften
- Monographic series
- Periodicals
- Reference works
- Academic monographs
- Biography/Autobiography
- Classroom Anthology
- Collected Works
- Correspondence
- Curriculum Guide
- Field Guide
- Lab Manual
- Periodical Anthology
- Programmed Text
- Revised Dissertation
- Online Application

Formats and materials collected selectively or by request

- Audio-visual material
- Textbooks are generally excluded unless requested by faculty.

· Formats that are not otherwise specified above (such as cartoons, festschriften, ephemera, etc.) will only be considered upon special request on a case-to-case basis.

Languages collected

Materials collected are primarily in English and selectively in Chinese.

Materials in other languages will only be considered upon special request on a case-to-case basis.

Chronological and geographical focus

Current materials are emphasized.

No geographic areas are excluded.

Useful Links

Collection Development Policy: https://www.lib.cuhk.edu.hk/en/collections/policy/

Liaison Librarian

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